



GLOBAL FUND FOR **CORAL REEFS**

REPLENISHMENT REQUEST FOR TERUMBU KARANG SEHAT INDONESIA (TEKSI)



Table of Contents

PROGRAMME SUMMARY	4
BUDGET REQUEST SUMMARY BY UNDГ CATEGORIES	5
1 EXECUTIVE SUMMARY	6
1.1 PROGRAMME GENERAL OUTLINE	6
1.2 REPLENISHMENT OVERVIEW	6
1.2.1 Priority Areas and Solutions	6
1.2.2 Replenishment Duration and Proposed Budget	7
1.2.3 Replenishment Period Objectives	7
1.2.4 Key Partners	8
1.3 JUSTIFICATION FOR REPLENISHMENT	8
1.3.1 Adaptive Management Proposed	8
1.3.2 Co-Financing	9
1.3.3 Investment Leverage	9
2 SOLUTIONS	9
2.1 INTERVENTION I – CAPACITY STRENGTHENING AND FUNDING DIVERSIFICATION FOR SUSTAINABLE MPA MANAGEMENT	9
2.1.1 Overview	9
2.1.2 Key Takeaways from Inception Phase	10
2.1.3 Next Phase Focus, Solutions and Expected Budget	11
2.2 INTERVENTION II – BUILDING RESPONSIBLE AND INCLUSIVE TOURISM GROWTH IN INDONESIA	12
2.2.1 Overview	12
2.2.2 Key Takeaways from Inception Phase	13
2.2.3 Next Phase Focus, Solutions and Expected Budget	13
2.3 INTERVENTION III – ACCELERATING INSTALLATIONS AND OPERATIONS OF RAMS	15
2.3.1 Overview	15
2.3.2 Key Takeaways from Inception Phase	15
2.3.3 Next Phase Focus, Solutions and Expected Budget	15
2.4 INTERVENTION IV – SAFEGUARDING REEF-POSITIVE SEAWEED PRODUCTION AND DEVELOPMENT	16
2.4.1 Overview	16
2.4.2 Key Takeaways from Inception Phase	17
2.4.3 Next Phase Focus, Solutions and Expected Budget	18
2.5 INTERVENTION V – SCALING UP INVESTMENT OPPORTUNITIES AND CAPABILITY OF REEF-POSITIVE BUSINESSES	20
2.5.1 Overview	20
2.5.2 Key Takeaways from Inception Phase	20
2.5.3 Next Phase Focus, Solutions and Expected Budget	22
3 OTHER ENABLING ENVIRONMENT ACTIVITIES	24
4 POLICY, REGULATION AND PLANNING	24
5 STAKEHOLDER ENGAGEMENT	26
6 FINANCING LEVERAGE	29
6.1 GRANT CO-FINANCING	29



6.2	REVENUE.....	29
6.3	PUBLIC AND PRIVATE SECTOR INVESTMENT	30
7	MONITORING AND EVALUATION (M&E) PROGRESS AND BASELINE ESTABLISHMENT	30
8	RISK MANAGEMENT	33
9.	PROGRAMME GOVERNANCE	38



Programme Summary

Programme Title: Terumbu Karang Sehat Indonesia (Phase 2)	Recipient Organisation(s): Conservation International Foundation (CI)
Programme Focal Point Contact: <u>For Conservation International (CI):</u> Jan Yoshioka Vice President, Sustainable Finance, Asia Pacific Division, Conservation International E: jryoshioka@conservation.org T: +65 9772 6873 <u>For Konservasi Indonesia (KI):</u> Fitri Hasibuan Senior Program Director, Konservasi Indonesia E: fhasibuan@konservasi-id.org T: +62 8116155782	Programme Location Country: Indonesia Priority Coral Reef Site(s): 1. Bird's Head Seascape (Raja Ampat and Bomberai MPA network) 2. Lesser Sunda Seascape (East Sumba in Sawu Sea TNP and Ekas Bay in Lombok) 3. Indonesian Eastern Indian Ocean Seascape (Fisheries Management Area 572)
Programme Cost (USD): <u>Previous approval total:</u> US\$ 3,000,000 <u>Additional approval:</u> US\$ 5,499,596 <u>Total:</u> US\$ 8,499,596	Start Date: June 8, 2022 Proposed End Date: December 31, 2029
Programme Description: Indonesia's coral reefs are among the largest, most diverse and resilient in the world. Within Indonesia, the GFCR programme will focus on two priority coral reef sites—the Bird's Head Seascape (BHS) and East Sumba . In the BHS, the programme will: a) diversify sustainable revenue streams to the Marine Protected Area (MPA) network to ensure effective protection of critical coral reef ecosystems and the prevention of destructive fishing; and b) will invest in the marine tourism industry to ensure it is better managed, associated threats to reefs are reduced, and Papuan communities' benefit. In East Sumba, the programme will invest in transforming the rapidly growing seaweed mariculture industry to demonstrate coral-positive, equitable, and profitable models that can be replicated nationally, per the ambition of the Indonesian Government. Across both regions, the programme will focus on the direct incubation of scalable reef-positive enterprise investments. Investment mobilization to reef-positive enterprises is also expected to double during the implementation phase, with extensive pipeline scoping and network, an increase in investability of potential businesses, and capacity building from domestic financial institutions.	



Signature of Convening Agent: Print: Organization Conservation International Foundation Name Richard Jeo Title Chief Field Officer and SVP, APFD Signature [Redacted Signature] Date 15/7/2024	Signature of Co-recipient Organization (if relevant): Print: Organization _____ Name _____ Title _____ Signature _____ Date _____
Signature of GFCR Executive Board UN Partner: Print: Organization UNEP Name Sinikinesh Jimma Title Chief, Marine and Coastal Ecosystems Signature [Redacted Signature] Date 7/17/2024	

Budget Request Summary by UNDG Categories

Organisation: Conservation International

UNDG Category	Previously Approved	Replenishment Request	Total
1. Staff and other personnel	\$ 603,838	\$ 1,283,232	\$ 1,887,069
2. Supplies, Commodities, Materials	\$ -	\$ 145,419	\$ 145,419
3. Equipment, Vehicles, and Furniture (including Depreciation)	\$ 10,854	\$ 49,305	\$ 60,159
4. Contractual services	\$ 334,640	\$ 740,060	\$ 1,074,701
5. Travel	\$ 107,210	\$ 572,093	\$ 679,303
6. Transfers and Grants to Counterparts	\$ 1,747,721	\$ 2,178,392	\$ 3,926,113
7. General Operating and other Direct Costs	\$ 94,335	\$ 302,149	\$ 396,484
Total Direct Costs	\$ 2,898,599	\$ 5,270,650	\$ 8,169,249
8. Indirect Support Costs (Max. 7% of Direct)	\$ 101,402	\$ 228,946	\$ 330,348
Total Budget	\$ 3,000,000	\$ 5,499,596	\$ 8,499,596



1 Executive Summary

1.1 Programme General Outline

Indonesia's coral reefs are among the largest, most diverse, and most resilient in the world. Many Indonesian reefs retain good coral cover and biological diversity and offer a wide range of potential opportunities for developing and studying climate change resilient coral reef refugia. **Terumbu Karang Sehat Indonesia (TeKSI)** aims to ensure the long-term effective **protection of priority coral reefs** and associated ecosystems in initial site priorities of the Bird's Head Seascape (BHS) and East Sumba in the Lesser Sunda Seascape (LSS) and two additional proposed sites prioritised by the Government of Indonesia as described in Section 1.2.1. below, while concomitantly pursuing opportunities to **transform local economies** by incubating investments in reef-positive industries and sustainable local livelihood development opportunities.

Solutions implemented in TeKSI are expected to contribute significantly to achieving the outcomes of: i) sustainable, long-term financing for effective MPA management and enforcement; ii) equitable, culturally appropriate and reef-positive ecotourism development and livelihood opportunities in priority seascapes in Indonesia; iii) enhanced economic and livelihood resilience for local communities through reef-positive industry development; and iv) increased sustainable financing flows to reef-positive enterprises and business models in priority areas and industries. The TeKSI Theory of Change is illustrated in the diagram provided in Annex A. By the end of the programme term in 2029, TeKSI aims to have delivered robust, scalable partnership based MPA management models that engage government, local communities, and private sector actors, and local economic development and growth models that are centered on and promote coral reef ecosystem protection and resilience.

1.2 Replenishment Overview

1.2.1 Priority Areas and Solutions

In the next phase, TeKSI will focus on advancing key interventions in initial priority sites while expanding the program to new priority locations aligned with national strategic opportunities and leverage program impact. Three seascapes will be the focus of activities, which are:

1. **Bird's Head Seascape (BHS) in West Papua and Southwest Papua Provinces:** Representing 75% of the world's known species with over 600 species of hard coral and 1,850 species of reef fish, BHS has been a priority site since the inception phase of the programme especially in sub-regions with highest recorded biodiversity which are Raja Ampat and Bomberai (Fakfak-Kaimana coasts). In the next phase, KI will continue to implement solutions previously proposed, including interventions focused on debt-for-nature swap funding mobilization, MPA revenue stream diversification, facilitating the operationalization of RAMS and support the transformation of local tourism sector.
2. **Lesser Sunda Seascape (LSS) in East Sumba and Ekas Bay:** Alongside BHS, Lesser Sunda Seascape will be a focus location for debt-swap implementation. The program will also continue to support reef-positive seaweed and other sectoral development in East Sumba while expanding the scope of TeKSI engagement to include coral reef ecosystems in Ekas Bay. East Sumba covers the largest site of Sumba MPAs zoned under the Sawu Sea Taman Nasional Perairan (Marine National Park – TNP), with an estimated 80% of a total 19,248-ha of reef area. This location has been identified by the Indonesian government as a priority for national seaweed mariculture expansion. Building on the enabling



activities conducted in Phase 1, TeKSI will focus on the development of reef-positive seaweed value chains, including upstream, midstream, and downstream interventions that generate significant reef conservation outcomes alongside sustainable livelihood development pathways that can be replicated at a provincial-scale. Ekas Bay in Lombok, West Nusa Tenggara is currently being a priority site by the Indonesian Government for piloting large-scale, mechanized tropical seaweed production for the production of large industrial applications such as biofertilizers, bioplastics, and renewable fuels and chemicals. The 100-ha pilot location is being led by Sea6 Energy (<https://www.sea6energy.com/>) in collaboration with the Indonesian Coordinating Ministry for Maritime Affairs and Investment (CMMAI) and estimated to host approximately 20-ha of coral reef area. KI, involved in preliminary survey along with other partners, identified a location with 70.82% coral cover which should be avoided for further development, emphasizing the importance of evaluating seaweed farming's impact on reefs and local livelihoods to align with Indonesia's blue economy goals and enhance community resilience. KI has been invited by the CMMAI and Sea6 Energy to design and develop coral reef monitoring and safeguarding frameworks to be adopted as guidance for the current pilot and future large-scale mechanized seaweed industry operations. These activities have the potential to safeguard coral reefs by improving sector-based development policies as public and private sector interest in large-scale industrial seaweed farming expands.

3. **Indonesian Eastern Indian Ocean Seascape (IEIOS), specifically in Fisheries Management Area (FMA) 572 (West Sumatra Province):** Aligned with the national goal of conserving 30% of its waters by 2045 and promoting blue economy development, an integrated marine protection and production initiative named **Blue Halo S** was launched by the Government of Indonesia (GoI), supported by Conservation International (CI) and KI during the Bali G20 event in November 2020 (details in Annex B). With funding support from the Green Climate Fund (GCF),¹ the **Blue Halo S** will be piloted in Fishery Management Area (FMA) 572 which encompasses waters in the Indian Ocean off the coasts of North and West Sumatra provinces. This area has about 125,738-ha of coral cover which is the third largest FMA in terms of coral cover in Indonesia. The GCF grant funding mechanism (Blue Ecosystem Adaptation Mechanism – BEAM) seeks to mobilize long-term funding for marine conservation and a sustainable and inclusive blue economy development and financing pathways. A significant portion of this grant will be allocated to investment readiness that aims to unlock potential blue economy investment in FMA 572. TeKSI will complement the **Blue Halo S** by focusing on the establishment of accountable MPA institutions and enabling conditions for sustainable fisheries and tourism development in West Sumatra Province.

1.2.2 Replenishment Duration and Proposed Budget

Phase 2 of TeKSI is expected to be implemented over a period of **three (3) years** and will focus on advancing and maturing solutions designed in the previous phase in initial Priority Areas and expanding these interventions to two new Priority Areas. The total budget proposed for the replenishment period is **US\$ 5,499,596**.

1.2.3 Replenishment Period Objectives

With the execution of proposed solutions and their complementary activities **until July 2027**, TeKSI is aiming to conserve **363,774-ha of coral reef area** spanning across the three seascapes. The programme targets to create **330 direct jobs** from the various sustainable revenue streams and supports **540 direct**

¹ The GCF has disbursed USD 1.5 million in Project Preparation Facility funding to develop a Funding Proposal for USD [•] in grant funding. The Funding Proposal is scheduled to be submitted in June 2024 with a target project commencement date in 2025



beneficiaries of which female is expected to contribute 15% of the total number. By the end of the mid-term period, CI Ventures LLC (CIV) aims to invest in a total of 10 reef-positive enterprises with total accumulated investment value of US\$ 3.5 million (inclusive of investees and amount from Phase 1). CIV aimed to catalyze an estimated US\$ 27.5 million of commercial financing or provide nine (9) times leverage of the GFCR grant. Details of indicators and targets are provided in Annex E (M&E and Results Framework).

1.2.4 Key Partners

In carrying out the solutions and activities in the second phase, KI will continue to strengthen stakeholder engagement with local civil society organizations, communities, research institutions, government agencies, and private sector entities in the BHS and East Sumba area while establishing new cooperation with the provincial marine management authority in West Sumatra for the Blue Halo S pilot (details in Section 5, Stakeholder Engagement). Through CIV, the program will continue to deepen engagement with its existing investor network and networks of enterprise incubators, accelerators, and venture builders while exploring engagements with other aligned public and private programs and institutions. The program will also continue to reinforce collaboration, cooperation, and coordination with Co-Convening Agents, TNC and YKAN.

KI, together with YKAN, has been facilitating the negotiation for debt-for-nature swap, anticipating the execution of the Coral Reef Conservation Agreement between the GoI, IC, KI, TNC and YKAN in June 2024. TeKSI's investment to sustainable seaweed aquaculture in East Sumba and similar YKAN's KORALESTARI project in Rote Ndao and Kupang Regencies will also be complementing each other in supporting blue economy solutions, especially in the seaweed sectors around the Savu Sea TNP area.

1.3 Justification for Replenishment

1.3.1 Adaptive Management Proposed

Based on lessons learned during the implementation of the Inception Phase (Phase 1) of the programme, the following adaptive management measures are proposed:

1. Activities pertaining to Cenderawasih Bay National Park initially stated in the programme proposal were subjected to adjustments; after a series of consultations a sustainable financing plan has yet to be designed and settled due to the prerequisite memorandum of understanding (MoU) between KI and the Ministry of Environment and Forestry (MoEF) not being in place.
2. **CIV Investment Mobilization:** Within the Priority Areas and sectors identified in the initial programme proposal, there is a generally limited pipeline of 'reef-positive' enterprises currently suitable for CIV investment. Many of the prospective investment opportunities identified during Phase 1 either: (a) failed to meet the minimum commercial and financial requirements for CIV investment; (b) evaluated to have low capacity or willingness to adopt 'reef-positive' practices; or (c) were enterprises whose core products and services had limited to no association with the protection, restoration, or improved management of coral reef ecosystems (e.g. pelagic fisheries, off-shore finfish aquaculture). To address these challenges, CIV initially targeted enterprises with operations outside the BHS and/or East Sumba whose 'reef positive' solutions were evaluated to have high relevance to and potential for transfer and adaptation to Priority Area contexts.

Building on insights gained from Phase 1, we will be adapting our Phase 2 approach to: 1) **enhance the bankability of early stage enterprises** by coordinating more closely with existing external Indonesia-



based incubator and accelerator programs (e.g. UNDP Blue Finance Accelerator) and technical assistance programs (TNC/YKAN Coral Reef Financing Facility) that support enterprise investment readiness; 2) **support the development of reef-positive enterprises** through collaboration with and co-investment alongside venture-builder programs such as the recently launched Terratai (<https://terratai.com/>); and 3) **provide dedicated support to portfolio companies to design and adopt reef-positive business practices** through grant-based post-investment support to portfolio companies. These interventions are expected to expand the pipeline of 'reef-positive' enterprises and solutions under this GFCR program.

3. **Microfinance:** The initially proposed assessment of demand, opportunities, and constraints for microfinance in West Papua was eliminated from the programme. Based on consultations with multiple local stakeholders it is evident that microfinance is not considered a priority or effective strategy in supporting coastal livelihood development in the area at present. West Papua receives the highest amount in development subsidies and the past government community development program provided target communities with cash and grants, limiting the demand for credit and other finance products. To support reef-positive microenterprises and organizations in West Papua, KI will continue to collaborate with the Blue Abadi Fund on its small grants program as a parallel and complementary non-GFCR workstream. As an alternative to these activities, TeKSI Phase 2 will focus on piloting the establishment of village-based enterprises (Bumdes) in reef-positive ecotourism in Bomberai.

1.3.2 Co-Financing

About US\$ 8.5 million in co-financing funds was acquired and **around US\$ 6.8 million will be directly utilized to support Phase 2 activities of TeKSI**. This funding originated from 8 entities, representing a 1:2x ratio of GFCR grant leverage. For the next phase, KI is anticipating an additional US\$ 46 million co-financing from two partners, primarily the GCF as the key supporter of the forthcoming Blue Halo S project slated to commence in 2025. Details of the co-financing are provided in Section 6 (Financing Leverage) and Annex D (Grant Co-Financing).

1.3.3 Investment Leverage

In the coming period, KI is expecting to mobilize more than US\$ 39 million of public and private sector investments, with the biggest contributor is from TFCCA's (Tropical Forest and Coral Reef Conservation Act) debt-for-nature swap. Other contributors include USAID Ber-IKAN and Kolektif in sustainable fisheries and capacity building of MPA management authority in BHS, and World Bank with Lautan Sejahtera (Lautra) programme as the prospective investor for RAMS construction.

2 Solutions

2.1 Intervention I – Capacity strengthening and funding diversification for sustainable MPA management

2.1.1 Overview

Intervention I focuses on ensuring adequate capacity and sustainable funding and/or revenue streams for MPA management. When sufficiently financed, MPAs have been successful at significantly reducing degradation drivers, e.g. Raja Ampat's MPA's patrols reduced poaching by over 90%. During its 18-month



inception phase, 79% of the proposed budget (US\$ 77,944 out of US\$ 97,992) was utilized for the execution of related activities.

In Phase 2, this intervention will bring forward two sustainable financing mechanisms, which are: i) **entrance fee collection in Bomberai MPAs**; and ii) **BLUD establishment and surf tourism fee enablement in the Blue Halo S pilot area**.

2.1.2 Key Takeaways from Inception Phase

Achievements

As a recently established Public Service Board (BLUD) in 2022, Bomberai MPA Management Authority had yet to have sufficient capacity for ensuring the financial sustainability of MPA management. Current Bomberai BLUD is still relied on government funding and supports partners such as KI and USAID Kolektif programme. This led KI to support the development of a user fee system as a pivotal means in providing financial management capacity building and helping them seek external funding from sources including the Blue Abadi Fund.

In Phase 1, KI successfully assisted the formulation of the Governor's Regulation on Service Tariffs for visitors to MPAs under the Bomberai BLUD. This regulation is a milestone following up on instructions from MoHA (Ministry of Home Affairs) in Regulation of the Minister of Home Affairs No. 79 Year 2018 Article 83 Paragraph 6 mandating the Bomberai BLUD to levy fees for environmental service users in Kaimana and Fakfak MPAs. The fee was formulated through a series of consultations involving a comparison study of Raja Ampat's tariff system and a direct survey to gauge the WTP of visitors and has been set at IDR 500,000/person/year (US\$ 30.85) for domestic tourists and IDR 1 million/person/year (US\$ 61.70) for foreign tourists. The fee structure and amount will be reviewed every two years and implementation of this regulation is presumed to be able to cover the annual expenditure of the Bomberai BLUD's operational activities (approximately IDR 2.42 billion or US\$ 150,000). However, in ensuring the managing capability of Bomberai BLUD, additional regulatory products are further required. KI will continue KI will continue to work together with USAID Kolektif in this regard to support the development thereof.

A draft of Coral Reef Conservation Agreement has also been submitted to the US Treasury and GoI, which is expected to be signed by October 2024. The funding is expected to be channeled through the Blue Abadi Fund (BAF) and YKAN are in discussions regarding a potential partnership for programme implementation.

Lessons Learned, Challenges, and Adaptive Management

Phase 2 initially aimed to contribute to the financial sustainability of the Cenderawasih Bay National Park. However, despite consultations between KI and MoEF, an MoU was not reached prior to commencing activities and the sustainable financing plan for Cenderawasih Bay National Park could not be developed. In addition, taking into account the refined priority to strengthen MPA management, KI is proposing to shift the geographic focus to extended areas of East Sumba within the LSS and the Blue Halo S pilot FMA 572 (details in Annex A). Notwithstanding the above, KI will continue consulting with the MoEF to establish a MoU based on the new collaboration procedures at MoEF.



2.1.3 Next Phase Focus, Solutions and Expected Budget

In the next phase, KI will continue to build capacity and strengthen long term financing strategies to effectively address the direct threats to coral reefs. Reef-positive solutions generated by Intervention I are indicated as **Output 1.1** and **Output 1.2** in the workplan (shown in Annex C) and expected to contribute to the outcome of **sustainable, long-term financing for effective MPA management and enforcement**. The expected budget to implement solutions and other supporting activities of Intervention I is **US\$ 1,023,362**.

2.1.3.1 *TeKSI Solution #1 Facilitating Debt-for-Nature Swap Mobilization (Tropical Forest and Coral Reef Conservation Act – TFCCA)*

Upon the successful signing of the Conservation Agreement between parties, US government, Indonesia government, CI and TNC expected in June 2024, KI team will be representing CI and sit in the governance committee of TFCCA. The committee will have fundamental roles in project planning and design as well as overseeing the implementation. This is an opportunity to strategically design TFCCA for scaling ocean conservation building from the successes and lessons learned in MPA Raja Ampat and unlocking investment from partners to local community economic development.

The purposes of the TFCCA are not limited to establishment of MPAs, strengthen the management of MPAs and enhancing science-based conservation program but it is also designed for developing and supporting livelihood of local community dependent on coral reef ecosystem. Building capacity of community groups and SMEs in the priority geographies (BHS and LSS) will be part of the focus of the TFCCA grants.

With BHS as the main focus areas of debt-for-swap fund mobilization, KI will ensure comprehensive stakeholder engagement, valid prioritization of conservation targets and transparent fund management are among the key strategic plans in the implementation. KI is committed to ensuring transparency and accountability in the management of funds mobilized through the debt-for-nature swap agreement, including establishment of monitoring and evaluation mechanisms to track the progress and impact of reef protection activities. Moreover, as part of the TFCCA oversight committee KI will work with the debt swap administrator to design and implement a program strategy for the priority geographies, based on an analysis of the key threats to coral reef ecosystem conservation and their drivers, and an assessment of opportunities.

2.1.3.2 *TeKSI Solution #2: Entrance Fee Implementation in Bomberai MPAs*

In supporting the execution of service tariff in Bomberai MPAs, KI will focus on providing three activities, which are i) capacity building of the Bomberai BLUD staffs; ii) facilitating socialization and engagement with relevant stakeholders; and iii) assisting standard operating procedures (SOP) development in completing other required provincial regulations regarding the user fee levy.

Strengthening capacity and capability is believed to be the core trigger of the entrance fee implementation, as currently the Bomberai BLUD has limited resources available, and skill related to managing and monitoring the operations. In terms of technical knowledge, KI will conduct training to equip the staff with information related to biodiversity monitoring, data management and reporting, sustainable financing, and financial management of the service tariff. KI will also help to engage the local



community in raising awareness of the user fee levy, expecting contribution from the surrounding livelihood in ensuring the standardized operations.

Assuming from historical numbers of visitors in Bomberai, this solution is projected to generate around IDR 2.61 billion or US\$ 161,093 of annual revenue, giving expected 5-8% profit compared to the BLUD's operational cost and can be invested for the enhancement of reef protection and fisheries strategy. The mechanism of profit sharing will be consulted, designed and included in the SOP development in Phase 2, aligned with the formulation of additional regulatory frameworks in the provincial and regency level supported by KI and USAID Kolektif.

2.1.3.3 TeKSI Solution #3: BLUD Establishments and Surf Fee Enablement in FMA 572

Establishment of BLUDs is seen as an important first step in improving MPA management, as BLUDs have the authority to both manage the operations of the conservation area and set the direction of the production-protection strategy, including the financing strategy. Hence, as a new priority location in TeKSI with 125,034-ha potential coral reef area, KI will primarily focus on establishing BLUD in West Sumatra Province (pilot areas of Blue Halo S), building capacity for MPA management and strategizing sustainable fisheries and tourism plan. The strategy will determine revenue generating opportunities for BLUD and partnership models with both sectors. Results from these activities are a fundamental modality for GCF financing to Blue Halo S, including the grant and non-grant mechanism.

Complementing the establishment of BLUD in FMA 572, during Phase 2 KI will also start to identify the viable sustainable financing mechanisms to support the operationalization of the BLUDs. Tourism, especially surfing, is determined as one of the sectors that can contribute to MPA financing. Mentawai Island has world class surfing sites, more than 80 surf accommodations and 30 surf charter boats. In Phase 2, KI will conduct a WTP study that will be used as the basis for drafting the regulation for surf fees.

2.1.3.4 Other Enabling Activities

Capacity building and reef protection plan of BKKPN (National Marine Conservation Area Agency) Kupang

Given its role as the MPA management authority within the expansive Sawu Sea TNP spanning approximately 3.5 million hectares, KI is poised to lend support to BKKPN Kupang in enhancing their capacity and strategic approach, particularly in coral reef protection. This assistance will involve the development of a comprehensive roadmap focusing on key areas such as reef-positive tourism practices, reef monitoring protocols, and fostering community engagement in conservation efforts. Furthermore, KI will facilitate dialogue between BKKPN Kupang and the local community in East Sumba, aiming to explore opportunities for resource sharing in reef protection initiatives, including collaborative patrolling efforts and coral data monitoring. Providing technical support to BKKPN Kupang will also be the priority of TFCCA.

2.2 Intervention II – Building responsible and inclusive tourism growth in Indonesia

2.2.1 Overview

Intervention II centers on ensuring sustainable and geographically dispersed tourism opportunities that sustainably managed and maximize benefits to local communities while incentivizing continued conservation. While tourism significantly aids socio-economic development in Indonesian localities, inadequate sustainable governance and planning not only diminish its benefits but also directly contribute to coral reef degradation. This is especially observable in rapidly growing areas like Dampier Strait in Raja Ampat, where visitor numbers surged by 40 times in 2019 compared to the preceding decade, posing challenges for tourism development. During Phase 1, 53% of the proposed budget (US\$ 107,086 out of



US\$ 200,007) was utilized for conducting spatial plan study in Raja Ampat and formulating policies that accommodate the findings and recommendations.

In the investment phase, this intervention will push forward one sustainable revenue stream, which is pilot village-based ecotourism business in MPA Bomberai.

2.2.2 Key Takeaways from Inception Phase

Achievements

Phase 1 focused on developing a tourism spatial plan (at the macro and micro level) and accompanying legislation for Raja Ampat. Whilst undertaking surveys for the tourism spatial plan, it became apparent that tourism activities are highly concentrated within the Dampier Strait, which is resulting in negative impacts on the marine ecosystem, particularly coral reefs. Consequently, at the macro or Regency level, the tourism spatial plan makes recommendations to alleviate pressure on the Dampier Strait caused by tourism. These include the proportionate distribution of tourism activities and key facilities to other sites within Raja Ampat that have similar special attractions; and the utilization of undeveloped and land-based destinations, such as Fam Islands and Waigeo, which have the potential to be promoted and marketed as tourist attractions.

In addition to the tourism spatial plan, KI supported the development of the Regent's Regulations on tourism management which have been submitted to Indonesia's MoHA for review. These regulations include provisions pertaining to zoning, permitted areas of development and other considerations for Raja Ampat's tourism spatial plan. This draft regulation complements the 15-year tourism development master plan stated in Regulation of Raja Ampat Regency No. 6 of 2021 and also the long-term spatial planning (2011-2030) stated in Regulation of Raja Ampat Regency No. 3 Year 2012. The draft is expected to be ratified in the second half of 2024.

Lessons Learned, Challenges, and Adaptive Management

Adequate infrastructure and the popularity of sites are the main drivers of tourist visits to certain sites. These factors are highlighted and will be priorities for government and other stakeholders for establishing and diversifying tourist destinations in Raja Ampat.

An assessment of microfinance access in West Papua was proposed for Phase 2. However, after stakeholder consultations microfinance is no longer considered a priority because of the limited demand informed by local stakeholders as previously mentioned in 1.3.1, instead TeKSI Phase 2 is aiming to pilot the establishment of community-based tourism enterprises in Bomberai as part of the implementation of inclusive ecotourism businesses. Reef-positive business is lacking in this area due to limited awareness of stakeholders on ocean conservation and the importance of healthy ecosystems. Through these activities KI aims to not only support the economic livelihood development by providing alternative sources of jobs and income, but also introducing and transforming the businesses in compliance with the reef-positive guidelines. The revenue generated is also expected to contribute towards funds for local BLUDs for improved MPA management.

2.2.3 Next Phase Focus, Solutions and Expected Budget

In Phase 2, KI will continue to focus on transforming ecotourism in and around BHS MPAs through grant-based enabling investments in technical assistance, training and seed support for local reef-positive ecotourism enterprises. Activities and solutions generated by Intervention II are indicated as **Output 2.1**



in the workplan (shown in Annex C) and expected to contribute to the outcome of **equitable, culturally appropriate and reef-positive ecotourism development and livelihood opportunities in key priority seascapes in Indonesia**. The expected budget to implement solutions and other supporting activities of Intervention II is **US\$ 302,044**.

2.2.3.1 TeKSI Solution #4: Village-based Ecotourism Business in MPA Bomberai

In facilitating the establishment of tourism enterprises in MPA Bomberai, KI aims to pioneer a model for village-based reef-positive tourism enterprises (Bumdes) that can be replicated nationwide. Bumdes is a business entity developed by government and village communities which aims to encourage rural economic development through rural entrepreneurship. As a pilot initiative, this project holds promise for empowering local communities and promoting sustainable tourism practices in other MPAs and regions across Indonesia. Throughout Phase 2 of TeKSI, KI plans to launch one ecotourism business, allocating the initial 12 months for conducting comprehensive feasibility analyses. These analyses will encompass assessments of infrastructure readiness, development of business models and financial plans, and the formulation of short- and mid-term strategies, laying a solid foundation for operationalization in the second year. Bumdes candidates will undergo rigorous appraisal, considering factors such as past business activities, potential impact on coral reefs, availability of resources, and levels of community engagement, ensuring the selection of initiatives with the greatest potential for long-term success and positive environmental outcomes.

2.2.3.2 Other Enabling Activities

Establishment of multi-stakeholder sustainable ecotourism forum

Building on the recommendations outlined in the tourism spatial plan of Raja Ampat Regency, TeKSI's next phase will further bolster the region's tourism development strategy. This will involve the initiation of a sustainable tourism forum, serving as a dynamic platform for stakeholders to engage in discussions regarding diverse aspects of tourism development. These discussions will encompass topics such as government policies, investment opportunities, collaborative ventures, and the introduction of innovative tools or initiatives aimed at promoting sustainable tourism practices. By fostering collaboration and knowledge-sharing among stakeholders, the sustainable tourism forum will play a pivotal role in shaping the future of tourism in Raja Ampat, ensuring its long-term viability, and benefitting both local communities and the environment.

Reinforcement of reef-positive and responsible tourism guidelines for Raja Ampat

In addition to training homestay and other pertinent tourism business owners, the reinforcement of reef-positive tourism guidelines presents an opportunity to integrate the guidelines and training modules established by Green Fin into Raja Ampat's tourism practices. Collaborating with Green Fin offers valuable insights and expertise in sustainable tourism practices, enhancing the effectiveness of training initiatives. Despite the limited membership of Green Fin in Raja Ampat, the implementation of their guidelines signifies a significant step towards promoting environmentally responsible tourism practices across the region. By expanding the adoption of reef-positive guidelines and fostering collaboration with organizations like Green Fin, TeKSI aims to catalyze the transition towards sustainable tourism in Raja Ampat, ultimately safeguarding its precious marine ecosystems for future generations.



2.3 Intervention III – Accelerating installations and operations of RAMS

2.3.1 Overview

Intervention III aims to **reduce further vessel anchoring damage to reefs by advancing the design, legislation and formal adoption of mooring network infrastructure and associated public-private management and fee-based systems in Raja Ampat**. At present, live on-board dive boats visiting Raja Ampat often anchor directly on reefs due to limited alternatives and tend to concentrate in heavily overused dive sites such as in central Dampier Strait rather than spreading across the regency. In Phase I, KI and a coalition of partners, have been developing a mooring system with advanced design and engineering, and researching potential placements aimed to significantly mitigate the direct threat of vessels anchoring to coral reef and proportionately distributing the anchoring sites throughout the Raja Ampat area. During the previous 18-month inception phase, 103% of the proposed budget (US\$ 146,717 out of US\$ 141,973) was utilized for the execution of preliminary surveys and studies.

In the next phase, Intervention III will foster the **implementation of RAMS user pay system** as the sustainable funding mechanism of its operations and contributor to conservation fund.

2.3.2 Key Takeaways from Inception Phase

Achievements

Phase 1 focused on verifying potential RAMS locations, 113 mooring points were identified – 87 points eligible for liveaboards and 26 points for yachts. In addition, two pilot points in Dampier Strait were surveyed and verified together with the local authorities, awaiting the first construction in Q2 2024. A business plan has been developed for the engineering design, expected cost, initial market overview, and maintenance procedures. Partnering with EON Engineering, KI identified the detailed plan and requirements of the RAMS, including: i) design, engineering specifications, maintenance, and control procedures; ii) landscape of targeted users; iii) engagement strategy with local communities; and iv) expected total cost for construction.

Lessons Learned, Challenges, and Adaptive Management

During the survey phase, KUPP (Port Authority, Harbormaster and Port Operator Unit of Indonesia) as the authorized government institution required the use of a specific tool to obtain the oceanographic data based on their standards. Unfortunately, the bureaucracy of renting the tool took longer than anticipated and stalled the programme timeline, hence KI's consultant partner in consultations with authorized government agencies developed and applied an alternative approach using a different tool and accompanied by divers to take substrate samples, with additional monitoring to evaluate the result.

Governance of RAMS and supporting policies were discussed among the coalition of partners including government in several RAMS working group meetings. Several management options were identified: 1) RAMS management by Raja Ampat MPA authority (BLUD Raja Ampat), 2) establish a new BLUD only for RAMS management, 3) BLUD Raja Ampat collaborates with private entities. Management by BLUD Raja Ampat is seen as the preferred option considering their experiences in managing Raja Ampat entrance fee tariff and also for ensuring the allocation for MPA management. Facilitating these governance and policies will be the focus of Phase II.

2.3.3 Next Phase Focus, Solutions and Expected Budget

In the replenishment period, KI will resume the investment mobilization towards RAMS construction, operations and stakeholder management. Activities and solutions generated by Intervention III are



indicated as **Output 3.2** in the workplan (shown in Annex C) and expected to contribute to the outcome of **equitable, culturally appropriate and reef-positive ecotourism development and livelihood opportunities in key priority seascapes in Indonesia and also to financial sustainability of MPA management through BLUD Raja Ampat**. The expected budget to implement solutions and other supporting activities of Intervention III is **US\$397,002**.

2.3.3.1 TeKSI Solution #5: RAMS Construction and User Pay System

By the end of Phase 2, a total of 10 priority points for the RAMS will be installed while in parallel continuing the formulation and design of the user pay system. Targeting live on-board dive tourism vessels, private small sailing, and motor yachts, as well as larger super yachts, the user pay structure should provide a sufficient revenue stream to enable maintenance, replacement of spare parts, support for the operational team, as well as contribute to the reef protection activities and investment for the next mooring systems construction. The mooring fee will be determined by discussions with relevant business owners and the results of willingness to pay study which will be held in Phase 2. It is expected that in Year 3 of the replenishment period, the system will have been well-established and self-running, ready to be replicated for further RAMS installations in Phase 3 and significantly reducing the impact of vessel anchoring to coral reefs in BHS.

KI will also continue to pursue the interest of World Bank to invest US\$ 2 million in this solution through their Lautra (Lautan Sejahtera) programme, seeking to improve sustainable management and protection of Indonesia's marine biodiversity including coral reefs and related ecosystems.

2.3.3.2 Other Enabling Activities

Government and stakeholder engagement to establish RAMS governance framework

With Southwest Papua being designated as a new province, building awareness and continuing engagement with key government stakeholders will be prioritized in Phase 2. This activity is critical to ensure government support and buy-in for the operation of RAMS. KI will aid in community outreach and stakeholder engagement together with the RAMS Working Group (POKJA RAMS) in convening discussions for collaborative execution, monitoring, and maintenance.

By the end of the replenishment period, KI aims to finalize a governance framework for RAMS, including but not limited to the technical details, standard operations procedures, maintenance, and monitoring guidelines. KI targets to initiate the discussion of RAMS' trial period regulations (first three month after construction) in a meeting between POKJA RAMS, Governor of Southwest Papua Province and Regional Secretary of Southwest Papua Province on 21 May 2024. A follow up meeting in June 2024 will also be conducted to assess the SOPs covering booking system, mooring usage duration, mooring attachment methods, vessel capacity, applied fee and reporting systems. Allocated revenue for MPA management and conservation will be channeled through Raja Ampat BLUD.

2.4 Intervention IV – Safeguarding reef-positive seaweed production and development

2.4.1 Overview

Intervention IV focuses on **strengthening foundational science and framework, including direct and indirect physical and bioecological risks to reefs of seaweed mariculture in promoting reef-positive and inclusive seaweed sector development and growth**. The seaweed industry had an estimated global market value of US\$13.3 billion in 2023 and is currently the fifth national fishery commodity export valued



at US\$400 million. Based on these figures, it is clear why the growth of the industry is one of the main focal areas of Indonesia's blue economy strategy. Furthermore, the GoI intention of transitioning from fossil fuels to renewable energy is propelling the expansion of large-scale seaweed farming, as it has been proven to be a more sustainable source of biofuel compared to palm oil. Data from the CMMAI in 2023 showed that seaweed cultivation has only utilized 0.3% of the 12 million ha of potential land available for aquaculture in Indonesia, despite having beneficial geographical supporting factors. Notwithstanding the above, seaweed farming might pose a significant threat to coral reefs and other important ecosystems as farmers' destructive practices might interfere with light penetration for the coral habitat while trying to increase their production. During Phase 1, 90% of the proposed budget (US\$ 259,873 out of US\$ 286,651) was utilized for the execution of the feasibility studies.

In Phase 2, KI will continue the initiation of reef-positive and sustainable income stream for the coastal livelihood in East Sumba through piloting local seaweed hatchery business and community-led seaweed first-handling facilities.

2.4.2 Key Takeaways from Inception Phase

Achievements

In Phase 1, research was undertaken on the condition of the coral reefs and reef fisheries around six seaweed cultivation locations in East Sumba. The results of the research were as follows: i) the average live coral cover was 36.5%; ii) coral recovery potential ranges from 6.8% - 43.8%; iii) the health coral reef index is between 3 -6; and iv) the coral fish class was found to be consistently low with a fish biomass average of 146.3 kg/ha. Furthermore, as a result of the resilience studies, two new species of seaweed were discovered (*Kappaphycus sp. 1* and *Kappaphycus sp.2*), which will be further developed for their climate- and disease-resilience.

During field observations and consultations with local stakeholders, it was found that the majority of existing seaweed farmers are fisherman and practice unsustainable fishing methods, which result in damage to coral reef cover. A decline in fish production is one of the reasons why fisherman converted to seaweed cultivation and utilize reef-degraded coastal areas for production. This shows a clear association of how supporting seaweed farmers could reduce threats to coral reefs as: i) seaweed is a promising alternative livelihood that can replace destructive fishing; and ii) sustainable intensification will allow seaweed farmers to avoid cultivation in healthy reef ecosystems.

Lessons Learned, Challenges, and Adaptive Management

It is evident from the studies and consultations undertaken during Phase 1 that seaweed is a key commodity for achieving integrated protection and production for sustainable ocean management towards blue economy targets in East Sumba and LSS. East Sumba has large potential and several opportunities for the development of economically important natural seaweed from the genera *Caulerpa*, *Ulva*, *Gracilaria*, *Sargassum* and *Halymenia* that might be able to cater for both the local and global demand for diversified species. However, a decline in the quality of *Kappaphycus alvarezii* seaweed seed is detected, due to the vegetative propagation thereof for more than 20 years.

Along with the national strategic plan to evolve the ocean economy sector, the Indonesian Coordinating Ministry for Maritime Affairs and Investment (CMMAI) is supporting seaweed production development initiated by Sea6 Energy, a large-scale (100 ha) seaweed farming pilot in Ekas Bay, Lombok of LSS. The seaweed is produced for biofuel and bioplastics. KI was involved in a preliminary survey with other



partners in six locations nearby. One of these locations was recognized as having good coral cover (70.82%) and should therefore be avoided for further seaweed development.

Thorough impact evaluations of seaweed farming to the surrounding reef ecosystem and livelihoods are a crucial foundation for the next step of the development. KI regards this as a pivotal opportunity to merge the interests of the GoI to invest more in the development of the blue economy and our target of enhancing economic and livelihood resilience for local communities through a reef-positive seaweed industry. This activity will be additional to the existing support provided for seaweed production in East Sumba.

2.4.3 Next Phase Focus, Solutions and Expected Budget

For TeKSI Phase 2, KI will leverage the key findings and baselines to establish reef-positive, equitable and profitable seaweed production in the LSS. KI aims to support reef-positive seaweed development in Indonesia through developing evidence-based reef-positive seaweed frameworks, local community empowerment, and the establishment of an investment roadmap to ensure sustainable production of high-quality seaweed as part of the blue economy strategy by GoI. Activities and solutions generated by Intervention IV are indicated as **Output 3.1** and **Output 3.2** in the workplan (shown in Annex C) and expected to contribute to the outcome of **enhanced economic and livelihood resilience for local communities through reef-positive industry development**. The expected budget to implement solutions and other supporting activities of Intervention IV is **US\$ 530,638**.

2.4.3.1 *TeKSI Solution #6: Local seaweed hatchery business*

In response to the critical need for climate- and disease-resilient seedlings for seaweed production in East Sumba, KI is spearheading collaborative efforts with partners to address this challenge. By leveraging partnerships with institutions such as UNRAM (University of Mataram) and BRIN (National Research and Innovation Agency), KI aims to advance the development of high-quality seedlings previously identified. This strategic collaboration not only fosters innovation but also promises to enhance the resilience of the region's seaweed farming industry. Additionally, KI is actively seeking partnerships with potential startups or SMEs to facilitate the establishment and management of nurseries, laying the foundation for a robust supply chain.

As part of Phase 2's initial activities, KI will craft a comprehensive business plan and business model to guide the initiative's trajectory. This plan will serve as a strategic roadmap for establishing partnerships with local organizations, streamlining seedling sourcing and distribution processes to benefit local farmers in targeted areas of East Sumba. Furthermore, Phase 2 will be focusing on the establishment of supportive governance structures, including standard operating procedures, monitoring plans, and necessary regulatory frameworks. By ensuring adherence to best practices and regulatory standards, KI aims to create an enabling environment for sustainable seaweed cultivation, thereby contributing to the resilience and prosperity of East Sumba's coastal communities.

2.4.3.2 *TeKSI Solution #7: Community-led seaweed first-handling facilities*

In Phase 1, a significant finding was the prevalent issue of high moisture content in dried seaweed sold to intermediaries or processing companies, leading to decreased market prices due to poor drying practices. To address this challenge in Phase 2, this project will establish a community-led seaweed processing unit. This unit will focus on enhancing the sun drying process and storage techniques, aiming to improve the quality of dried seaweed and consequently increase market value. Moreover, the establishment of the



processing unit is anticipated to stimulate economic growth by boosting seaweed farmer income and creating additional job opportunities as well as upholding reef-positive standards by ensuring sustainable practices in seaweed processing.

In conjunction with the establishment of the processing unit, KI will conduct training sessions for the local community to support BKKPN Kupang in reef protection efforts. These sessions will equip community members with the necessary skills and resources generated by the processing unit to engage in activities such as patrolling and monitoring coral reef health.

2.4.3.3 Other Enabling Activities

Support for International Tropical Seaweed Resilience Institution (ITSRI) establishment

In Phase 1, KI and other partners, Sea6 Energy, Cargill, and seaweed practitioners contributed to the completion of ITSRI viability analysis conducted by Hatch. The analysis emphasizes how ITSRI can promote resilience in tropical seaweed industry in a changing climate. On the other hand, World Bank predicting a surge in the global seaweed market by an additional US\$ 11.8 billion in 2030, a unified and integrated seaweed research center is deemed to be an important step in supporting the growth of this sector.

Seaweed is an important commodity for the Indonesian economy and GoI is planning to expand the sector effectively through enhancing research and technology. The establishment of a research center for seaweed is one of the strategies planned by the GoI. GoI will announce this plan, seaweed research center establishment, in the 10th World Water Forum in Bali in May 2024. In alignment with this strategy, KI will collaborate with Hatch and the GoI through the National Research and Innovation Agency of Indonesia (BRIN) to assist in the business development of the tropical seaweed center. A commercialization strategy is also included in the programme plan, where the revenue generated is expected to sustain the operationalization of the center in the long term.

Reef-positive seaweed development safeguards and monitoring framework in Ekas Bay (Lombok)

The CMMAI is supporting Sea6 Energy's large-scale seaweed farming project in Ekas Bay, Lombok, aimed at producing biofuel and bioplastics. A preliminary survey by KI and partners identified a location with significant coral cover, prompting caution in further development. The development of safeguards and a monitoring framework will ensure the scaling up of seaweed farming to meet the environmental and social safeguards and will not harm the coral reef. Developing a coral reef map for prospective seaweed expansion will be part of the monitoring and safeguard. Over the course of the project, KI will conduct project impact evaluations to measure the project's impact, its alignment with the government's blue economy investment goals and coastal communities' economic resilience.

Multi-stakeholder seaweed development forum

The development of the seaweed industry within the blue economy strategy necessitates robust multi-stakeholder consultations. These consultations are crucial for shaping guidance and frameworks that ensure the sustainable growth of seaweed sector while aligning with broader economic and environmental objectives. Additionally, the establishment of a seaweed investment pipeline requires careful deliberation and collaboration among stakeholders to identify viable opportunities and address potential challenges. By engaging diverse stakeholders, including seaweed farmers, industry representatives, government bodies, and environmental experts, these consultations can foster informed decision-making and promote inclusive growth in the seaweed industry, ultimately contributing to the advancement of the blue economy agenda and reef protection plan. KI will involve government agencies



and local communities alike such as the Department of Marine Affairs and Fisheries (DKP), BKKPN Kupang, Indonesian Seaweed Industry Association (PT. ASTRULI) and Indonesian Seaweed Association (ARLI).

2.5 Intervention V – Scaling up investment opportunities and capability of reef-positive businesses

2.5.1 Overview






Intervention V includes activities related to the establishment, capitalization, and mobilization of a dedicated Indonesia Investment Window within Conservation International Ventures (CIV) which vehicle is designed to incubate a portfolio of reef-positive investments aligned with GFCR principles and the strategic and thematic priorities of the programme. The programme will directly seed a portfolio of small-medium enterprises that represent industry best-in class examples of reef-positive business models that generate quantifiable ecological, socioeconomic, commercial, and financial outcomes. Additional information on CIV and its GFCR investment approach and strategy are provided in Annex G to this proposal. During Phase 1, 100% of the proposed budget (US\$ 1,667,965) was used for the operationalization of programmes and investment. Five enterprises for reef-positive investments have been identified, namely Seadling, Wittaya Aqua, JALA, Sambung Asa, and Sejiva. Investment for Seadling was disbursed by the end of 2022 using the CIV committed fund for GFCR. Investment to Wittaya is pending wire transfer, while for JALA was pending for contract agreement. Both Sambung Asa and Sejiva are in the due diligence process which the costs were already covered by the phase 1 budget.

2.5.2 Key Takeaways from Inception Phase

Achievements

Portfolio Investment: During Phase 1, CIV deployed or committed US\$ 1.8 million in financing across five reef-positive businesses (see Table 1 below):

Table 1. Portfolio Overview

					
Impact Sectors	Sustainable Ocean Production (Mariculture)	Sustainable Ocean Production (Aquaculture)	Sustainable Ocean Production (Aquaculture)	Sustainable Ocean Production (Mariculture)	Sustainable Coastal Development (Ecotourism)
Drivers/Threats Addressed	<ul style="list-style-type: none"> Unsustainable mariculture 	<ul style="list-style-type: none"> Unsustainable aquaculture Wastewater² 	<ul style="list-style-type: none"> Unsustainable aquaculture Wastewater³ 	<ul style="list-style-type: none"> Unsustainable mariculture 	<ul style="list-style-type: none"> Harmful tourism
Priority Area	LSS: East Sumba LSS: Ekas Bay	LSS: East Sumba	LSS: East Sumba	LSS: East Sumba	LSS: East Sumba BHS: Bomberai IEIOS: West Sumatra
Implementing Partners	CI, SAFE Seaweed Coalition, University of Malaya	KI, CI	KI, CI, BRIN, CMMIA	KI, MMAF, UNDP, CMMIA, FAO, WWF, Tiera Sumba	KI, Tiera Sumba
Investment Size (USD)	750,000	350,000	500,000	250,000	200,000

² Technologies enable precision aquafeed application, reducing or mitigating the risk of coastal pollution from excess nutrient accumulation in farm effluents

³ Technologies enable real-time water quality monitoring, reducing or mitigating the risk of coastal pollution from excess nutrient accumulation in farm effluents



Funding Allocation (%) ⁴	GFCR: -- CIV: 66.55% Other: 33.33%	GFCR: 100.00% CIV: -- Other: --	GFCR: 100.00% CIV: -- Other: --	GFCR: 100.00% CIV: -- Other: --	GFCR: 100.00% CIV: -- Other: --
Annual Revenue Potential (US\$)	2.5 million to 3.0 million (Year)	US\$ 2 – 4 M	US\$ 1 – 4 M (Net margin)	US\$ 50,000 - 100,000	US\$ 100,000 - 150,000
Investment potential (US\$)	US\$ 15 - 20 M	US\$ 10 – 20 M	US\$ 20 – 50 M	US\$ 1 – 5 M	TBC
Closing Date:	Dec 22	Apr 24	Jun 24 (anticipated)	Aug-24 (anticipated)	Sep 24 (anticipated)

Further details regarding the above-referenced enterprises and GFCR alignment are attached to this proposal document as Annex H.

Strategic Partnerships: KI has been coordinating seamlessly with other organizations in generating potential current and future pipelines. Reaching out to YKAN’s KORALESTARI programme, KI will continue to work together through their blended finance mechanism called Coral Reef Funding Facility (CRFF) to support sustainable and reef-positive businesses. KI has also engaged with UNDP’s Blue Finance Accelerator (BFA) and Archipelagic Island States Blue Hub (AIS Blue Hub) as their platforms of accelerating, incubating and communicating blue enterprises. One of our current investees was actually identified through these collaborations.

Lessons Learned, Challenges, and Adaptive Management

The general paucity of scalable, replicable, investment-ready ‘reef positive solutions’ underpins the rationale for the GFCR and its blended finance approach. While Indonesia has taken meaningful steps to promote the development and growth of its ocean economy, only a narrow subset of these sectors and industries focuses directly on coral reef ecosystems. In Indonesia, sites prioritized by the GFCR based on coral cover and coral health indicators tend to be characterized by comparatively lower levels of development pressure, and consequently, a narrower set of local economic opportunities. These factors were readily apparent in the implementation of CIV’s work during Phase 1 of the GFCR programme.

Key Phase 1 Insights & Lessons:

1. There are a limited number of investment-ready ‘reef positive’ opportunities in Priority Areas. Many of the prospective enterprises identified during Phase 1 either: (a) failed to meet minimum commercial and financial criteria; (b) had limited capacity or willingness to adopt ‘reef-positive’ practices; and/or (c) had limited to no association with the protection, restoration, or improved management of coral reefs (e.g. focused on pelagic fisheries). Further, only a limited number of formal enterprises scoped during Phase 1 had current operations within either the Bird’s Head Seascape of East Sumba.
2. There is a need for market and industry ecosystem-building. While there are a growing number of blue economy-focused accelerator programs and investors focused on Indonesia, additional capacity building is needed with respect to investor and financial sector engagement, education, and network building, as well as market and enterprise development for ‘reef positive solutions’ at multiple stages.
3. Pipeline of ‘reef positive’ investment opportunities is unevenly distributed across Impact Sectors. Phase 1 opportunity scoping identified a higher proportion of programmatically aligned aquaculture and mariculture enterprises than marine fisheries enterprises. Many enterprises focused on coral-reef

⁴ Funding Allocation: Proportion of GFCR program related investment financed by GFCR funding, CIV co-financing, or other third-party co-financing



associated fishery value chains in Priority Areas are informal enterprises (largely subsistence, or semi-commercial) or are low-capacity micro-scale businesses outside the mandate of CIV. The most promising intervention points for investors like CIV are to engage with seafood trade intermediaries such as Aruna (<https://aruna.id/>) and BlueYou (<https://blueyou.com/>) which specialize in artisanal and small-scale seafood.

Adaptive Management: To address the barriers identified in Phase 1, CIV targeted its initial investments on enterprises currently outside Priority Areas but which: (a) had demonstrated impact and commercial track records; and (b) offered solutions that directly addressed key threats and drivers of coral reef degradation identified in Priority Areas. In Phase 2 of the program, we will continue to identify promising companies that have the potential to expand their impact to Priority Areas but will be increasing our focus on enterprise capacity development and market ecosystem building.

2.5.3 Next Phase Focus, Solutions and Expected Budget

Building on insights gained from Phase 1, we will be adapting our Phase 2 approach to: 1) **enhance the bankability of early stage enterprises** by coordinating more closely with existing external Indonesia-based incubator and accelerator programs (e.g. UNDP Blue Finance Accelerator) and technical assistance programs (TNC/YKAN Coral Reef Financing Facility) that support enterprise investment readiness; 2) **support the development of reef-positive enterprises** through collaboration with and co-investment alongside venture-builder programs such as the recently launched Terratai (<https://terratai.com/>); and 3) **provide dedicated support to portfolio companies to design and adopt reef-positive business practices** through grant-based post-investment support to portfolio companies. These interventions are expected to expand the pipeline of ‘reef-positive’ enterprises and solutions under this GFCR program.

2.5.3.1 TeKSI Solution #8: Increased Investments in Coral Reef Positive Solutions

In Phase 2, CIV aims to finance a total of 10 businesses in the replenishment with a total value of US\$ 3,500,000 period (inclusive of enterprises in Phase 1), with a target of 40% being gender-smart investments. Reef-positive enterprises incubated in Intervention V are indicated as Output 4.1 in the workplan (shown in Annex C) and expected to contribute to the outcome of **increased sustainable financing flows to reef-positive enterprises and business models in priority areas and industries**. The expected budget for investment and other supporting activities of Intervention V is US\$ 2,357,651.

2.5.3.2 TeKSI Solution #9: Ecosystem-Building for ‘Reef Positive’ Investments

During the inception phase we have learned that we need to build a financing ecosystem for reef-positive enterprises. The reef positives business has financing potential that is yet to be explored by the banks and financial institution in Indonesia. This is due to lack of information on the risk profile, how the business operates, and lack of incentives. During the next phase, we want to include activities to bridge the gap for reef positive enterprises to access capital by facilitating more informational exchange between domestic financiers and the enterprises. Through activities such as a business and investment forum, network building, and consistent communication.

2.5.3.3 TeKSI Solution #10: Improving Capacity for ‘Reef Positive’ Practices in Portfolio Companies

In connection with Phase 2, CIV will establish a portfolio technical assistance facility intended to provide portfolio companies with access to grant-based support to improve adoption and mainstreaming of ‘reef positive’ practices within their business operations. Examples of eligible uses of technical assistance grants include, but are not limited to: procuring technical services for development of coral risk assessment and



impact monitoring frameworks, procurement of coral risk monitoring tools, procuring internal coral impact monitoring and data collection capacity, developing reef-positive sourcing guidelines, or supporting supplier education materials on reef-positive practices

2.5.3.4 Other Enabling Activities

Further pipeline development and investment mobilization

CIV has 13 potential companies in the pipeline with various sector focuses, including ecotourism, mariculture, fisheries and reef health, of which 38% of the co-founders are women. Together with Hatch, CIV conducted a Women in Ocean Food Innovation Studio event in 2022 that helped to drive bigger pool of women-led sustainable businesses as potential candidate and might consider holding the second edition of the event should needed. CIV will also continue to share potential investees with YKAN's CRFF and UNDP's BFA and AIS Blue Hub, exchanging accessibility to each other's programme, pipeline, and grant availability.

<div> <div>Bird's Head Seascape</div> <div>Lesser Sunda Seascape</div> <div>Indonesia East Indian Ocean Seascape</div> </div>			
Impact Sector	Company	Primary Threats/ Drivers Addressed	Company Summary
Sustainable Ocean Production	Seadling https://www.seadling.com/	• Unsustainable Mariculture	Expanded livelihood and income opportunities through new markets for regenerative seaweed
	Wittaya Aqua https://wittaya-aqua.ca/	• Unsustainable Aquaculture • Wastewater Pollution	Enabling precision aquaculture to reduce risk of excess nutrient accumulation from aquafeed in farm effluent
	JALA https://jala.tech/	• Unsustainable Aquaculture • Wastewater Pollution	Monitoring shrimp farm water quality to reduce pollution risks while promoting resilient livelihoods
	Sambung Asa https://sambungasa.id/	• Unsustainable Mariculture	Improving seaweed production practices and promoting resilient, reef positive coastal livelihoods
	Living Seas Aquafeeds https://www.livingseasquafeeds.com/	• Unsustainable Aquaculture • Habitat Alteration	Organic aquafeeds promoting mangrove and reef positive livelihoods while reducing coastal pollution
Sustainable Coastal Development	Sejiva https://sejiva.id/	• Harmful Tourism	Conservation-focused ecotourism enterprise channeling % or revenue to coral conservation
	AzulBio https://azulbio.com/	• Rising oceanic temperature • Coral disease	Coral health and resilience technology to enhance coral nursery and restoration approaches
	Innoqua https://corp.innoqua.jp/en	• Rising oceanic temperature • Coral disease	Coral biosphere technology to enable clinical trials of impact of commercial products on coral reef health
Circular Economy & Pollution Management	RECO https://www.recovered.id/	• Marine Plastic Pollution	Integrated plastic waste recovery solutions focused on coastal and underserved areas
	Biopac https://biopac.id/	• Marine Plastic Pollution	Seaweed based bioplastic alternatives supporting resilient livelihoods for Indonesian seaweed farmers
Financial Mechanisms	OceanEye https://oceaneye.io/	• Harmful Tourism	Incentivising reef conservation through biodiversity-linked micropayments

Figure 1. Pipeline of CIV Investments in TeKSI Programme

In appealing to the potential investees to launch their operations in TeKSI's priority areas, CIV will resume to provide concessions in the terms. Part of CIV's investment is expected to help the business in covering initial capital and operational expenses, with a flexible grace period, lower interest rate and no guaranteed requirement. CIV will also integrate the investment activities with the need of the TeKSI program to support and strengthen the implementation and the achievement of the outcomes for example activities 2.3.2.2, 2.4.3.1, and 2.4.3.2 which are regarding reef-positive eco-tourism and seaweed supply chain development. CIV will drive the portfolio companies to be an active part of the activities, whether as part of the pilot or in other form of involvement.

Currently not having an embedded technical facility as accelerator and incubator, CIV would like to leverage the partnership with YKAN and UNDP in the implementation of graduation approach for the early-stage enterprises and position CIV as investors for all cohorts. Going forward, CIV hopes to involve



reef-positive local businesses in TeKSI's priority locations in either YKAN's or UNDP's acceleration programme to be more investable for bigger financial institutions in Indonesia.

With the most recent focus from Ministry of Maritime Affairs and Fisheries (MMAF) and the East Sumba Regency Government to build a 2,085-ha pilot integrated cultivation shrimp in 2024-2027, the planned development is not only bringing positive local economic growth in one side but also posing significant environmental risks in consequences. Large and massive ponds with intensive technology are considered difficult to sustain in the long term due to the environmental burden caused. Even if wastewater treatment has been applied, it is difficult to anticipate the decline in environmental quality and burdens from the pond water produced high stocking density ponds, threatening the health of surrounding marine biodiversity. With those considerations, CIV is expanding the pipeline focus into improving potential enterprises in the shrimp sector, as an effort of safeguarding coral reef in East Sumba while providing additional alternative of sustainable livelihood to seaweed mariculture as proposed in the initial proposal.

3 Other Enabling Environment Activities

All feasibility studies conducted in the inception phase are associated with the specific interventions detailed in Section 4. The final report of all surveys will be made available as part of the 2023 GFCR [Report](#).

In connection with the new proposed activities and geographies including Ekas Bay and the Blue Halo S pilot area (FMA 572), a series of feasibility studies are planned in Phase 2.

- Baseline surveys to assess live coral cover and fish biomass.
- Socio-economic surveys assess local community social activities and livelihoods, and the seaweed production systems (supply and value chain).

These studies will be conducted in partnership with local universities and research agencies at national level and potentially the private sector. Resource availability and capacity at local universities such as UNRAM, Riau University and Bung Hatta University will be assessed prior to each survey. The selection of research partners will be processed through A Request for Proposal (RFP) and the selection process will follow KI's procurement policy. The selected partner will also need to develop a reef monitoring guideline to provide a long-term monitoring standard for the project and beyond. In addition, during Phase 2, technical analysis will be conducted to provide scientific information for the implementation of reef solution interventions.

Under the Blue Halo S's grant program will also support the investment readiness for the Blue Economy, which at some part of it will be overlap with reef-positive business. The grant will support multistage development of businesses from the MSMEs, cooperatives, startups, and more matured companies looking for blue practice transformation, and the enabling environments such as policy, technical guidance and adoption, and building awareness for the banks and other financial institutions. The grant program will benefit the mobilization effort of investment toward reef-positive businesses.

4 Policy, Regulation and Planning



In Phase 2, four new regulatory frameworks including strategic documents will be developed to support the execution of interventions stated in Section 4, additional feasibility studies proposed in Section 5, and implementation of the policies completed in Phase 1 as mentioned above. These include the following:

1. *Development of the fisheries and tourism strategy for Bomberai and West Sumatra MPAs*

Tourism and fisheries are identified as the main blue economy opportunities within these priority areas. These sectors have initially been activated by individuals and the private sectors, but the growth has yet to be significant and scalable. Government – as the key strategic role-player in setting the regional direction of ocean economy optimization – has developed several strategic documents, such as:

- In Bomberai, the Kaimana and Fakfak District government has launched the *Kaimana District Regulation No. 1 Year 2023* concerning the Kaimana District tourism development plan for 2022-2025 and the *Fakfak District Regulation No. 1 Year 2023* regarding the Fakfak District tourism development master plan for 2022-2037. These regulations were recently released and have yet to delve deeper into socio-ecological considerations of the implementation and engagement with relevant stakeholders, especially Bomberai BLUD as the authorized institution in MPA management.
- In West Sumatra, the provincial government has released the *West Sumatra Provincial Regulation No. 3 Year 2014* focusing on the provincial tourism development plan for 2014-2025. Considering the nearing end period of the documents, it is deemed to be strategic for KI to assist and suggest recommendations to the governing authorities factoring in the tourism strategy for sustainable tourism growth.

With the completion of the fisheries and tourism strategy in Phase 2, KI will set up the complementary foundations for diversified reef-positive revenue models as the sustainable financing for Bomberai and West Sumatra MPAs in accordance with the government's development plan.

2. *Design of Sawu Sea coral reef protection plan*

Aligned with the target of strengthening the reef protection activity for BKKPN Kupang in Intervention 1 and supporting a sustainable seaweed industry in Intervention 4, KI will focus on developing a strategy for the Sawu Sea MPA – an area with lowest coral reef cover under BKKPN Kupang authority and the location of seaweed cultivation in East Sumba during Phase 2. Coral reefs in Sawu Sea experienced degradation due to unsustainable fishing practices, economic development infrastructure, bleaching, and other natural hazards. As a result of the degradation, the average live coral cover for the 53,063-ha coral reef area is 18.55%. The existing data, including identified threats to coral reefs studied in East Sumba in Phase 1 will be used as a reference to formulate the reef protection plan. The plan will also highlight priority programmes and roles of stakeholders to protect the reef ecosystem, followed with socialization events to introduce and engage stakeholders.

3. *Business model framework for community-based tourism enterprises*

The main objective of piloting community-based tourism enterprises, including a seaweed production village, is to empower indigenous people and local communities (IPLC) to be in the center of emerging natural resources management businesses. Currently, the sector is dominated by people from other parts of Indonesia or foreign investors. The lack of business and financial management capacities are the main challenges in these communities despite funding and institutional support from government through village funds and village-owned enterprises. The business model will provide details on market analysis, marketing strategy, financial management, etc. which will be formulated together



with local communities. Training and coaching are also critical in the development of the business model.

4. Seaweed seedling governance and industry development safeguards

In supporting the national development plan for blue economy through seaweed production, TeKSI Phase 2 is aiming to provide: i) governance of quality, climate- and disease-resilient seaweed seedlings; and ii) biological and socio-economic safeguards of seaweed industry development. The seedling governance is expected to ensure both a sufficient amount of quality seedlings provided based on the production cycle, and a standardized procedure for replicating and producing the seedlings. On the other hand, the safeguards will include critical considerations such as site selection, reef condition, and pricing to protect both the coral reef ecosystem and livelihood welfare.

5 Stakeholder Engagement

Similar to the first phase, solutions implementation in the replenishment period will proceed to include extensive stakeholder engagements and consultations involving relevant government authorities, local communities, other NGOs and research partners. KI will resume coordination with previous parties from Phase 1, continuing collaborations that have been very well established. Engagement with the provincial governments and communities in West Sumatra will be a notably new activity, with the recently added priority locations for the Blue Halo S pilot.

During Phase 1, one of the main challenges in programme execution was the bureaucracy and communication processes of the local authorities. With the release of Constitution No. 29 of 2022 regarding the establishment of Southwest Papua Province, engagement with the government of Raja Ampat was delayed due to internal reporting and organizational structure changes. In East Sumba, similar formal administration issues were encountered due to the different government authorities involved in marine resources management, for instance the provincial authority handles the seaweed cultivation programme while coastal livelihood development welfare is supervised by the regency authority.

Table 2. Stakeholder Engaged in TeKSI Phase 2

Type	Stakeholder	Engagement and collaboration expected for next phase
Local government	Raja Ampat MPA Management Authority <i>Provincial entity responsible for patrolling and managing the Raja Ampat network of seven MPAs.</i>	<ul style="list-style-type: none"> Active partners for the implementation of RAMS and implementation of sustainable tourism spatial plan in Raja Ampat MPA Coordinate and communicate on implementation of RAMS in the two national MPAs of Raja Ampat
Local government	Bomberai MPA Management Authority <i>Provincial entity responsible for patrolling and managing the Fakfak-Kaimana network of six MPAs.</i>	<ul style="list-style-type: none"> Key entity in the implementation of entrance fees to MPA, development of tourism and fishery strategy, and facilitating the establishment of the tourism village pilot. Assist in understanding how to best fund the Bomberai MPA management
Local government	Kaimana Regency Government in Bomberai MPA	<ul style="list-style-type: none"> Actively coordinate and communicate on tourism and fisheries management with the BLUD UTPD (Bomberai MPA Management Authority)



Local government	Kupang National Marine Conservation Authority in Kupang Agency (BKKPN Kupang) <i>Provincial co-management authority of Sawu Sea Marine National Park.</i>	<ul style="list-style-type: none"> A partner in all work relating to tourism and MPA management in Raja Ampat Formal engagement to be coordinated with TNC given shared geographic interest.
Local government	Department of Marine Affairs and Fisheries of East Nusa Tenggara (DKP NTT), Fisheries Agency of East Sumba Regency <i>Governance authority for marine affairs in NTT waters.</i>	<ul style="list-style-type: none"> Lead agency for marine management, and fisheries and aquaculture activities in provincial waters
Local government	Department of Marine Affairs and Fisheries of West Sumatra (DKP Sumbar) <i>Governance authority for marine affairs in West Sumatra waters.</i>	<ul style="list-style-type: none"> Lead agency for marine management, and fisheries and aquaculture activities in provincial waters
Local government	Regional Development Planning Agency (BAPPEDA) of West Sumatra	<ul style="list-style-type: none"> Active partners for coordinating government development programs and priorities at provincial level. Organize/facilitate development partners coordination
Local government	Department of Tourism and Culture of West Sumatra	<ul style="list-style-type: none"> Key entity for consulting and issuing the surf fee regulations.
Community partner	Blue Abadi Fund/Kehati <i>Kehati is the Adminstrating organization for the Blue Abadi Fund and a partner in all Blue Abadi related activities.</i>	<ul style="list-style-type: none"> Convene a Papuan advisory council. Debt swap channeling
Community partner	Asosiasi Rumput Laut Indonesia (ARLI)	<ul style="list-style-type: none"> Develop communication platform for stakeholders (seaweed) Establishment and expansion of seaweed farming in West Nusa Tenggara Provide market as main seaweed buyer. Advise on sustainable technology
Community partner	Indonesian Seaweed Industry Association (PT. ASTRULI)	<ul style="list-style-type: none"> Develop communication platform for stakeholders (seaweed) Establishment and expansion of seaweed farming in West Nusa Tenggara Provide market as main seaweed buyer. Advise on sustainable technology
Community partner	Perkumpulan Sinergi Rakyat Untuk Alam Kaimana (SINARA)	<ul style="list-style-type: none"> Potential collaboration with the MPA Authority, the Regency Government, and KI regarding youth participation in environmental and social issues in Kaimana.
Community partner	Raja Namatota and Raja Kumisi	<ul style="list-style-type: none"> Both kings are actively participating in MPA Management through local initiatives. King's decree issued in Raja Namatota supporting the protection of ETP species and coral transplantation.



		<ul style="list-style-type: none"> Raja Kumisi: Support the management of Sasi and become the coordinator of the Sasi network in the BHS of Papua.
NGO	YKAN/TNC	<ul style="list-style-type: none"> De-risking through reef insurance Access to finance, co-financing Investment pipeline sharing Debt-swap potential co-implementing partner. Complementing programme for reef-positive seaweed cultivation in Sawu Sea
NGO	The World Bank	<ul style="list-style-type: none"> Potential co-financer for MPA mooring systems as part of Lautra programme MPA unit technical assistance Incubator and business support Pipeline sharing and co-financing
NGO	Asian Development Bank	<ul style="list-style-type: none"> De-risking through Asia-Pacific reef insurance programme Blue Finance Accelerator programme (incubator)
NGO	UNIDO	<ul style="list-style-type: none"> Seaweed production manual and training Seaweed market access
NGO	USAID Ber-IKAN	<ul style="list-style-type: none"> Pipelines sharing especially on sustainable fisheries businesses
NGO	USAID Kolektif	<ul style="list-style-type: none"> In Phase 2, collaboration will be intensively conducted on the operationalization of BLUD and implementation of tariff service. MPA management body support Coral reef conservation works. Coral monitoring
Private institution	Sea6 Energy	<ul style="list-style-type: none"> Technology partner for seaweed hatchery center Establishment and expansion of seaweed farming in West Nusa Tenggara Provide market as main seaweed buyer
Research institution	Hatch Blue	<ul style="list-style-type: none"> Lead consultant for seaweed resilience center
Research institution	SEAMEO BIOTROP	<ul style="list-style-type: none"> Seaweed seedlings and hatcheries development
Research institution	EON Engineering	<ul style="list-style-type: none"> Lead consultant for mooring study, construction, and development in Raja Ampat Technical support for the installation of mooring system and strengthening mooring institution
Research institution	University of Papua (UNIPA)	<ul style="list-style-type: none"> M&E activity coordination and implementation in BHS MPAs
Research institution	University of Nusa Cendana (UNDANA)	<ul style="list-style-type: none"> Seaweed socio-economic baseline assessment/study in East Sumba
Research institution	University of Mataram (UNRAM)	<ul style="list-style-type: none"> Seaweed disease and climate resilience research
Research institution	University of Kristen Artha Wacana (UKAW)	<ul style="list-style-type: none"> Seaweed biological baseline study in East Sumba
Research institution	Indonesia Ecotourism Network (Indecon)	<ul style="list-style-type: none"> Lead consultant for tourism spatial plan and technical document for tourism planning policy Potential collaboration for the implementation of Raja Ampat sustainable tourism activities, specifically those



		related to the tourism spatial plan study recommendations. Technical support to prepare community for the implementation of sustainable tourism
--	--	--

6 Financing Leverage

6.1 Grant Co-Financing

A total of US\$ 6,997,901 in co-financing funds have been secured to support TeKSI Phase 2. The funds were received from 7 sources including donor agencies, philanthropies, and public funding institutions and 75% of them will be utilized as true and parallel co-financing (US\$ 5,229,791). Details of the co-financing funds and its contribution to specific outcome or budget lines are provided in Annex D (Grant Co-Financing).

In commencing the next phase of the programme, KI is also anticipating an additional US\$ 14,550,000 co-financing from two co-financers. The largest co-financer being the GCF, which is the primary supporter of the Blue Halo S programme expected to start in 2025. Other sources are in the proposal development stage, with a total potential co-financing fund of US\$ 750,000.

Table 3. Grant Co-Financing Summary

Type	Anticipated		Secured	
	Total Grant	Co-Financing	Total Grant	Co-Financing
Parallel			\$ 1,230,000	
True	\$ 46,750,000	\$ 14,550,000	\$ 7,267,901	\$ 6,799,791
Grand Total	\$ 46,750,000	\$ 14,550,000	\$ 8,497,901	\$ 6,799,791

6.2 Revenue

As the inception phase was focusing mainly on enabling conditions, laying groundwork policies, conducting feasibility studies, and measuring baselines, it is expected that there is no revenue currently generated from the activities and interventions carried out. Going into Phase 2, several revenue streams are anticipated to start contributing as follows:

1. Entrance fee levy in Bomberai MPA (projected annual revenue of IDR 2.61 billion or US\$ 161,093)
2. Pilot village-based ecotourism businesses in Bomberai (revenue projection to be provided after business plan formulation in Year 1 of Phase 2)
3. RAMS user pays system implementation (revenue projection to be provided after business plan formulation in Year 1 of Phase 2)
4. Commercialization of seaweed quality seedling produced from the hatchery pilot (revenue projection to be provided after business plan formulation in Year 1 of Phase 2, but estimated volume is 32,337 tons/year)
5. Community-led first-handling facilities in East Sumba (revenue projection to be provided after business plan formulation in Year 1 of Phase 2)



6.3 Public and Private Sector Investment

In the upcoming period, KI aims to secure investments totaling over US\$ 39 million from multiple sources with TFCCA's debt-for-nature swap expected to be the primary contributor. Moreover, USAID Ber-IKAN and Kolektif will assist in sustainable fisheries and MPA management capacity building in the BHS region, while the World Bank's Lautan Sejahtera (Lautra) program is being considered as a potential investor for RAMS construction.

Table 4. Potential Sector Investment for TeKSI Phase 2

Organization/Institution	Private/Public	Amount	Remarks
TFCCA	Public	\$35,000,000	Debt-for-nature swap prospect in BHS
USAID Ber-IKAN	Public	\$2,300,000	5-year sustainable fisheries funding in BHS
USAID Kolektif	Public	\$126,700	Grant for capacity building and operational support of Bomberai BLUD
Lautan Sejahtera (Lautra)	Public	\$2,000,000	Investment prospect for RAMS by World Bank

The key takeaway from the initial phase concerning the attraction of public and private investment towards the GFCR objectives in Indonesia highlights the challenge of identifying investment opportunities specifically tailored to coral reef ecosystems within targeted regions. Initially, eligible enterprises were limited to those that: i) directly address local and industry-related factors contributing to reef degradation; ii) produce substantial and lasting benefits in terms of income, livelihoods, and employment that positively impact reefs; and iii) have the potential for broad-scale impact through replication or expansion of business models.

Consequently, there is a need to broaden the strategic approach employed in Phase 1 for mobilizing investments. CIV in Phase 2 will maintain its collaboration with YKAN's CRFF and UNDP's BFA and AIS Blue Hub, facilitating the exchange of information on potential investees, program accessibility, pipeline, and grant availability. To incentivize potential investees to establish operations in TeKSI's priority areas, CIV will offer favorable terms, including providing part of the investment to cover initial capital and operational expenses. These terms also include flexible grace periods, lower interest rates, and eliminating the requirement for guarantees.

Although CIV currently lacks the capacity to conduct technical assistance such as being an accelerator or incubator, it aims to leverage partnerships with YKAN and UNDP to implement a graduation approach for early-stage enterprises. This positioning allows CIV to act as investors for all cohorts and enables the involvement of reef-positive local businesses in TeKSI's priority locations in either YKAN's or UNDP's acceleration programs, thereby enhancing their appeal to larger financial institutions in Indonesia.

7 Monitoring and Evaluation (M&E) Progress and Baseline Establishment

Status of M&E Implementation

The M&E framework was developed through participatory discussions by the project team, following a site assessment, leading to the development of the M&E plan. The M&E activities included desktop and field monitoring to ensure the project runs on track referring to the plans. Data was collected and



recorded monthly in the Indicator Tracking Table (ITT) and reported in the dashboard. The project management team uses the dashboard as a reference to inform new activities and policies.

Progress in Establishing Baselines (Social and Environmental)

Social and environmental baselines have been established according to the scope of work and timeframe set, for both BHS and East Sumba for Phase 1.

In 2023, KI collected data on the coral health status of two MPAs in Raja Ampat and four MPAs in Bomberai. The average live coral cover in the overall BHS area decreased by 3.92% from the 2019 baseline of 36% to 32.08% in 2023. During COVID-19, it was expected that the regional focus was shifted to implement countermeasures due to the pandemic, affecting the resources and budget allocated from the government for the reef protection programme. Reef fish biomass of key functional fish groups surveyed in Raja Ampat MPA was $573,09 \pm 188,24$ kg/ha; a 10.8% increment increase compared to baseline data of average reef fish biomass in 2019 of 517 ± 139 kg/ha of.

For East Sumba, a study was undertaken on the condition of coral reef and reef fisheries around six seaweed cultivation locations (Kadahang, Purukambera, Walakiri, Warajangga, Tapil, and Kaliuda). The results of the research were as follows: i) the average life coral cover was 36.5%, and ii) the coral fish class was found to be consistently low with a fish biomass average of 146.3 kg/ha.

Following these findings, the baseline for environmental indicators of TeKSI Phase 2 will be adjusted to the latest study going forward (see details in Annex E – M&E and Results Framework).

Meanwhile, research in East Sumba also shows that the seaweed industry has the potential to be developed further, including national and local regulations to support the investment, price, and value add of seaweed, which contributed 13.80% of dried seaweed production in NTT province and provided jobs for 19.37% of the total labor force. The GDI (Gender Development Index) of seaweed farming activities in East Sumba Regency reached 0.73, indicating relatively equal access and contribution from both men and women. Seaweed cultivation is the primary source of income in East Sumba; additional sources of income are farming, fishing, trade, and teaching. KI will add sectoral monitoring in the implementation of TeKSI, especially for the seaweed industry. KI has included sectoral monitoring in its M&E Framework (Country M&E Framework) which covers seaweed, fisheries and ecotourism but have yet to include it in TeKSI Result Framework since due to following the previous template shared by GFCR.

Expected Timeline for Establishing Baselines

With the proposed additional coverage area for the replenishment period, it is necessary to collect actual field data on the environmental conditions especially on the average live hard coral cover and reef fish biomass of the two priority sites: i) Lombok, specifically in Ekas Bay area; and ii) West Sumatra MPA. Several secondary data are available based on the previous surveys from KI field team in specific areas, with the details shown in Table 4 below.

Table 5. Environmental Data Baseline in TeKSI New Priority Sites

Location	Source	Indicators		
		Coral Reef Area	Fish Biomass	Hard Coral Cover (%)



West Sumatra	Department of Marine Affairs and Fisheries of West Sumatra (2022)	49,867 ha	N/A	22.30% - 47.20%
Ekas Bay (Lombok)	Survey by KI, BRIN, UNRAM and CMMAI (2023)	20 ha	N/A	0.8% - 70.82%

It is expected that the baseline data will be completed in Year 1 of Phase 2 and will be reviewed for the programme's target adjustment going forward.

Progress in Establishing Targets

All targets have been 100% defined for inception phase. Other than the financial indicators (F9), targets have also been set up in programme fund-level. Details of each phase target are provided in Annex E – M&E and Results Framework.



8 Risk Management

Risk management for Phase 2 fully adopts the risk matrix identified in the original programme proposal, as there are no changes in programme-level interventions. However, there is an adjustment in the risk level of two existing risks:

1. Economic and social impacts of COVID-19 pose a risk to project delivery (Contextual Risk #7): The GoI revoked the status of Limited Activities Restriction on December 30th, 2022, and issued a presidential decree concerning of Determination of the End of the Status of the Corona Virus Disease 2019 (Covid-19) Pandemic in Indonesia on June 30th, 2023, consequently the identified risk level is changed from High to Low.
2. Uncertainty due to government shifts in priorities and policy changes (Institutional Risk #2): Government elections are scheduled to take place in Q1 2024, as a result of which government priorities and policies might be affected. Hence, the identified risk level is adjusted from Low to High.

Table 6. Risk Matrix for TeKSI Phase 2

Risks	Risk Level	Likelihood	Impact	Mitigating measures	Responsible Unit/Person
Contextual risks					
#1 Adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups	Low	2	2	Project will implement a robust communication plan through stakeholder engagement with diverse stakeholders.	KI in consultation with CI's social safeguards and practices team.
#2 Potential for lack of inclusiveness in project decision-making and governance.	Medium	2	3	In alignment with our values and standard operating procedures, CI and KI will include Indigenous Peoples' representatives, leaders and traditional authorities in decision-making around project activities. CI/KI will further uphold non-discrimination in all actions, ensuring even hard-to-reach indigenous communities are engaged in project activities within their geography, with a priority focus on vulnerable populations and groups. CI/KI will follow the principles of the Rights-based Approach to Conservation and Free, Prior and Informed Consent (FPIC).	KI in consultation with CI's social safeguards and practices team.



#3 Need for intercultural and gender sensitive approaches to project activities	Medium	3	3	CI/KI will consult, train and collaborate with traditional Indigenous leaders and local community representatives on the project activities to ensure the integration of culturally appropriate approaches and platforms to the project design. To ensure adequate engagement of women and marginalized groups, the project will actively engage women's groups in key activities. Any intercultural response should be gender-responsive and based on awareness of the different needs and roles of men and women in the community.	KI in consultation with CI's social safeguards and practices team.
#4 The chance of gender-based violence (GBV) can be increased when raising incomes and creating jobs, particularly work that focuses on increasing representation from women in traditional male-dominated sectors such as fishing/mariculture and where there is gender inequality within the household.	Medium	3	3	All staff will receive additional training on GBV and how to respond if incidents are reported/disclosed. This will be based on CI's guideline published in 2020, "Gender-based violence: recognizing and responding to gender-based violence (GBV) in community conservation." The program team will assess the implications (for everyone involved) of talking to a survivor/reporter: CI/KI recognizes that our involvement may make the situation worse. Follow the lead of the survivor/reporter in determining what is best. Establish a referral list of groups who are trained to support this in case it is needed. Ensure that the Project's Grievance Redress Mechanism is designed to response to project related GBV incidents. Research and become familiar with national laws and regulations related to GBV including victim's rights.	KI in consultation with CI's social safeguards and practices team.
#5 Women may face barriers to participating in project training and decision-making processes, and therefore may not be able to engage in, influence and benefit from the project as planned. Gender inequality within the household or producer organizations can increase risks of sex and GBV.	Medium	4	3	Implement training processes with a gender focus - proactively encourage women's participation through understanding the barriers they face and implementing mitigation measures. Promote the participation and enrolment of women themselves and male in support of this.	KI in consultation with CI's social safeguards and practices team.
#6 Risk that indigenous rights will not be respected	Medium	2	3	CI/KI and project partners will seek FPIC before implementation of any policy, program or interventions that affects Indigenous Peoples.	KI in consultation with CI's social



					safeguards and practices team.
#7 Economic and social impacts of COVID-19 pose a risk to project delivery.	Low	1	1	<p>An emergency response plan will be developed with procedures and guidelines being followed in alignment with government protocols. KI address COVID-19 risks, and provide guidance on:</p> <ul style="list-style-type: none"> - Social distancing, personal protective equipment, safety and security measures, and partner engagement procedures - Biosecurity protocols for small producers; coordination with national and regional health and security officials - Apply COVID-19 project risk guidance to re-assess risks on a regular basis - Permanent two-way communication on the health condition between CI/KI, the technical team and beneficiaries - Education and sensitization processes for the technical team and beneficiaries - Provide and require the use of equipment and steps to limit the spread of the pandemic - Provide a grievance redress mechanism (for the entire project) 	CI's Safety Officer
#8 Information susceptible to manipulation or adulteration	Low	2	3	<ul style="list-style-type: none"> - Define processes and procedures that allow the identification of roles and responsibilities in the project's information management. - Perform internal audits to promote citizen oversight. - Implement CI's Research Ethics Policy to ensure household data is kept safe. 	KI, UNIPA, CI Ventures
Programmatic risks					
#1 Local stakeholders could lack the technical skills for Program implementation	Medium	4	3	Activities will be developed to ensure identification of stakeholders responsible for management or continuation of activities beyond the scope of the Program. The project will engage private sector partners to strengthen the livelihoods of communities,	KI



				including providing technical support for market access and product development.	
#2 Partner organizations do not follow proper procedures for project implementation, which could cause delays in project implementation.	Medium	3	3	Conduct due diligence of all partner organizations prior to signing agreements. Ensure, through CI grant agreements and monitoring, that all reporting requirements cascade to our partners. Provide training to all grantees on operational compliance. Provide additional capacity support and propose other remedies if gaps in compliance with agreements are observed with our partners during implementation monitoring.	KI and CIV
#3 Effects of climate change have a negative impact on the outcome of project activities such as ecotourism and seaweed mariculture.	High	4	4	In the event of a natural disaster, CI will work directly with communities and governments to support ecosystem and community recovery. CI has experience delivering post-disaster support in the Pacific Region/SE Asia. This will include providing training and resources to communities to conduct post-disaster restoration support activities to maximize survival rates.	KI
Institutional risks					
#1 Changes in local or national leadership that affect natural resources governance.	Medium	2	3	<ul style="list-style-type: none"> - KI will work closely with communities, municipal authorities and national ministry focal points to advance both site-based and national objective under the Program. - Changes in local leadership, where trust and relationships are already established, could result in changes to the project timeline. - Changes in national leadership could require additional discussion and engagement with the government. 	KI
#2 Uncertainty due to government shifts in priorities and policy changes	High	4	3	The project will work with national and subnational leaders to ensure alignment of activities with national priorities. The project will also strengthen the country's	KI



				ability to conserve key species and habitats as well as protect natural resources to increase climate resilience of rural communities.	
#3 Limited coordination/ communication between sectoral agencies and/or ministries	Medium	3	3	CI/KI and partners will work in close coordination with key ministries and local leaders to ensure alignment and close coordination on the design and implementation of the project.	KI
Fiduciary risks					
<p>#1 Anti-corruption: decisions in favor of particular interests can contribute to:</p> <ul style="list-style-type: none"> - Cost overruns with low work quality and quantity - Hiring non-ideal providers or personnel - Costs in responding to claims against project management <p>These factors can increase administrative costs and adversely affect project credibility.</p>	Medium	2	3	<ul style="list-style-type: none"> - Define control points in procedures and hiring processes. - Comply with procurement and public calls for personnel section. - Conduct internal audits to promote citizen oversight as a monitoring and tracing mechanism of the project's results. - Promote the use of a suitable project level grievance mechanism and CI's Ethics Hotline to project beneficiaries to air grievances anonymously. 	KI
<p>Assumptions:</p> <ul style="list-style-type: none"> - Total area of all project sites will benefit from project interventions. - Total population of all project sites will benefit from project intervention either through increased knowledge or improved access and management of ecosystem services or directly from increased income. - Improved management of coral reefs will maintain ecosystems and the benefits for adaptation and mitigation of climate change impacts. - Beneficiaries will freely participate in the project activities and are willing to engage in the livelihood activities and management practices supported by the project. - Women, youth, and other marginalized members of the community will be able to participate through specific actions to ensure their inclusion. - The local and national governments will support project actions even if government actors change. - All actors trained by the project will utilize the training locally and to the betterment of their communities. - Any data require for the success of this project will be available or easily obtained. 					



9. Programme Governance

The current program committee, comprising CI and KI teams, organizes monthly meetings to discuss program planning, challenges, and strategies. For CIV investments, decisions are made by an internal Investment Committee consisting of senior management from the CI Conservation Finance Division. CIV and KI have initiated a development partner meeting with organizations like YKAN, USAID, UNDP, World Bank, and GEF WWF, and held a specific meeting with UNDP to invite them to join the Indonesia advisory committee. During this implementation stage, program governance will be strengthened to ensure an inclusive decision-making process and alignment with related initiatives such as the debt swap and Blue Halo S. Figure 2 below illustrates the proposed governance structure.

TeKSI Advisory Committee (TAC) will be chaired by the Senior Vice President (SVP) and Chief Field Officer of Asia-Pacific Field Division (APFD). The members will include SVP and Executive Chair of Konservasi Indonesia, VP Sustainable Finance of Conservation International, Senior Ocean Advisor of Konservasi Indonesia and Senior Program Director of Konservasi Indonesia. The TAC will review project progress and provide support and guidance to the TeKSI Implementation Team and the committee's suggestions will be taken into consideration in the overall decision-making process. Based on the TAC's advice, the Implementation Team will deliver on the project's expected outputs. The TAC will also facilitate the engagement of senior CI advisors and other relevant technical expertise for supporting project field implementation.

The TAC will establish appropriate lines of communication for the TeKSI project, enabling Country Directors' access to the project updates in relation to general progress, performance against desired outcomes, budget, staffing, M&E, and partner relations, etc.

The purpose of the TAC is to effectively guide the TeKSI Implementation Team. It is not the purpose of the Committee to assume *de facto* decision-making authority for the project. Meetings will be held bimonthly for the first six months and then quarterly for the remainder of the project and on an ad hoc when requested by the TeKSI Implementation Team or any member of the TAC. At TAC meetings, the TeKSI Implementation Team will present a full project update in a closed meeting where minutes will be taken.



TeKSI PROGRAMME GOVERNANCE

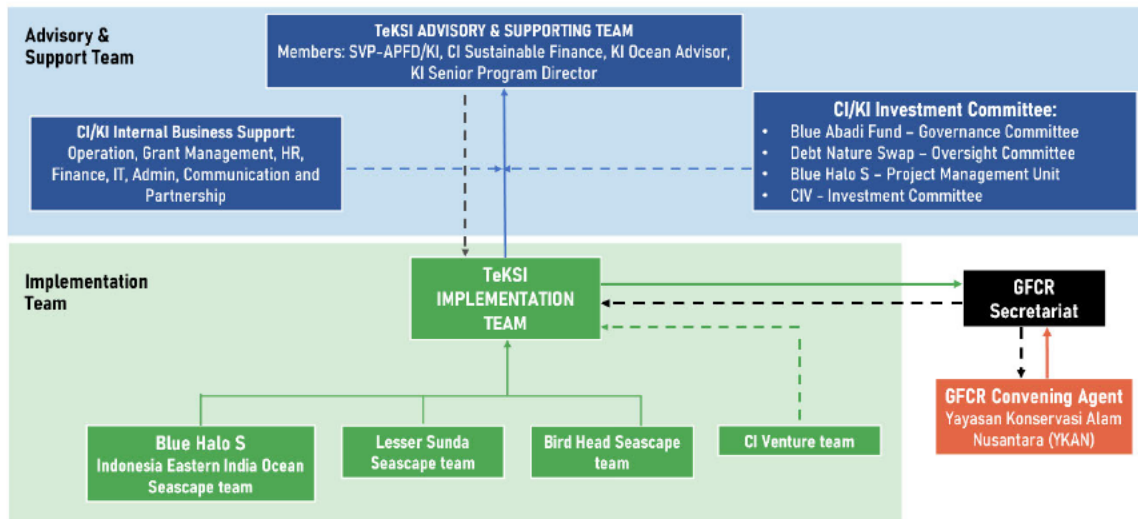
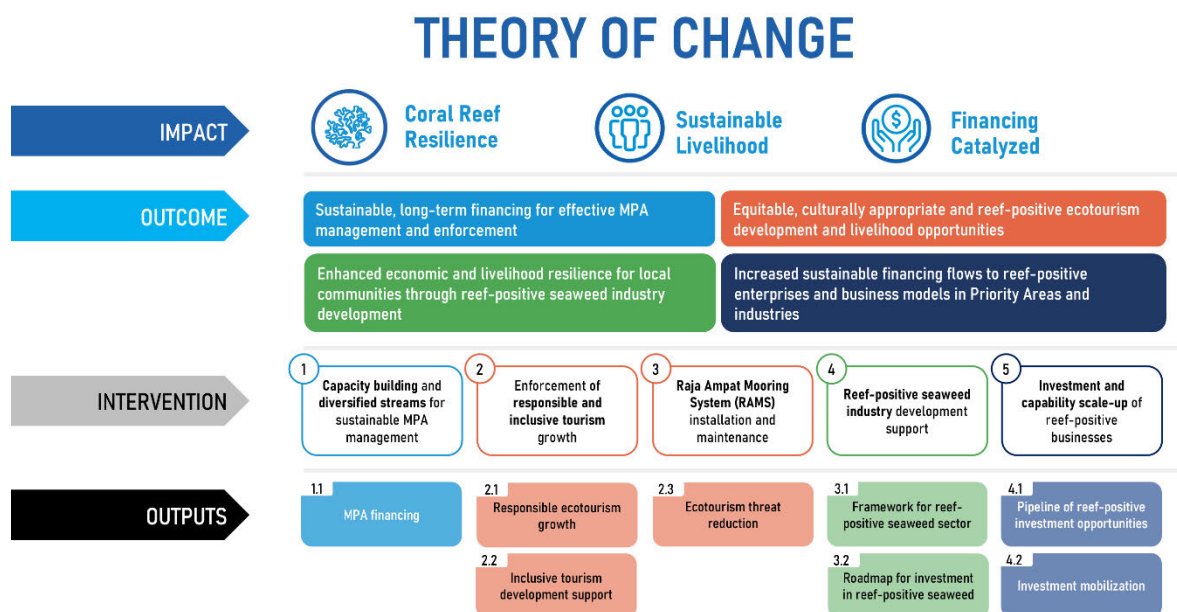


Figure 2. Proposed TeKSI Programme Governance Structure

Contents

ANNEX A – THEORY OF CHANGE	1
ANNEX B – ADDITIONAL PRIORITY SITES (BLUE HALO S PILOT AREA)	2
ANNEX C – TEKSI WORKPLAN FOR REPLENISHMENT PERIOD	6
ANNEX D – GRANT CO-FINANCING	10
ANNEX E – M&E AND RESULTS FRAMEWORK	12
ANNEX F – GFCR SAFEGUARDS AND GENDER	18
ANNEX G – CONSERVATION INTERNATIONAL VENTURES	21
ANNEX H – SELECTED ENTERPRISES FOR INVESTMENT	28
ANNEX I – DEBT FOR NATURE SWAP	31

Annex A – Theory of Change



Annex B – Additional Priority Sites (Blue Halo S Pilot Area)

Name of site and location: Indonesian Eastern Indian Ocean Seascape (Fisheries Management Area of 572 - WPP 572)

Ecological characteristics of priority site's coral reefs

Within Indonesian territorial waters, there are eleven fisheries management areas (FMAs; known as *Wilayah Pengelolaan Perikanan* -WPP), which is used as a unit to delineate and manage the country's diverse marine and fisheries areas. The WPPs are divided based on their ecological characteristics, regional features, and fish resources for sustainable fisheries management. The naming and numbering of WPPs is aligned with the FAO's global fisheries management area divisions. Among those WPPs, the WPP 572 is situated in the westernmost part of Indonesia, located in the Indian Ocean, to the west of Sumatra Island and includes the Sunda Strait—connecting Sumatra with Java Island. This area plays a critical role in the country's fisheries management due to its rich biodiversity and substantial fisheries resources.

Within the WPP 572 pilot area, there are 125,738.88 ha of coral reefs, the condition of which is variable. For example, West Sumatra has 36,982.16 ha of coral reefs. However, there is considerable variation between regencies. In Pesisir Selatan Regency, 84.33% of the coral area is damaged, whilst in Padang Pariaman Regency 45.90% is damaged, and in Agam Regency 100% of the coral area is damaged.⁵ To date, only 0.58% (548.705 ha across 13 MPAs) of the total WPP has been established as MPAs, with an additional 347,444 ha already planned as new MPAs.

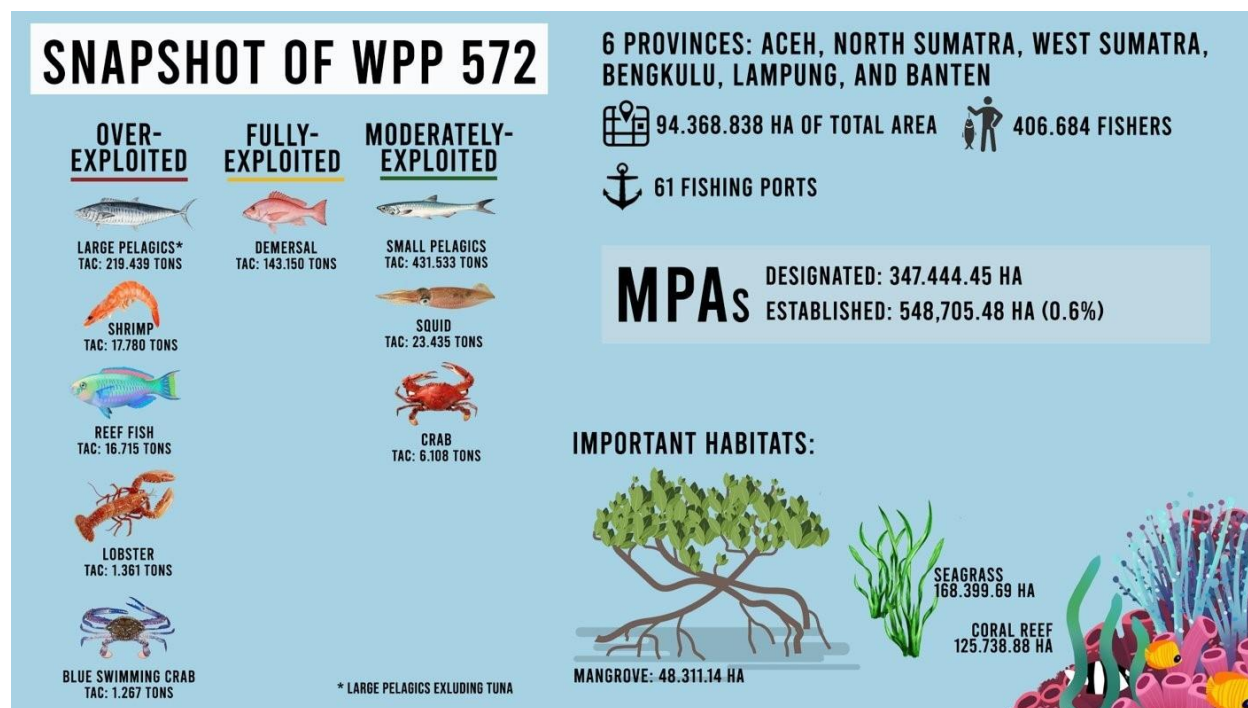


Figure 3. Snapshot of WPP 572



Indonesia's coral reef ecosystems support an estimated 3.98 million tonnes yr⁻¹ in marine fishery biomass.⁶ Reef dependent and reef-associated species account for an estimated 562,000 tons of Indonesia's total annual marine fisheries stock potential. The cumulative impacts of climate change on coral reef fisheries will disproportionately impact coastal fishery-dependent communities, which are already among the poorest and most socioeconomically vulnerable segments of the Indonesian fishing sector. Fishing households account for an estimated one-fifth of Indonesia's poor.⁷ Considering Indonesia's comparatively high rates of domestic seafood consumption and nutritional reliance on fish,⁸ reef fishery-dependent communities in Indonesia are also among the world's most vulnerable from a food security perspective.⁹ Climate change is expected to increase these vulnerabilities, particularly, in light of recent government efforts to promote increased domestic fish consumption.¹⁰

Socioeconomic value of region's coral reefs

Compared with other WPPs in Indonesia, WPP 572 contains approximately 17% of the coral reef ecosystem, positioning it as the third largest WPP in the coral reef population, trailing behind WPP 714 (18%) and WPP 713 (18%). This pilot area holds significant fishery importance both for food security (domestic consumption) and as a high value export commodity; and currently supports 406,684 fishers and 61 fishing ports. Catches from this area are dominated by small and large pelagics (e.g., neritic tuna, skipjack tuna, yellowfin tuna and spanish mackerel). In addition to tuna, deep-water demersal fisheries with several snappers and groupers are exported fresh to Singapore and Malaysia. Of the Indonesian tuna catches—the largest in the world—19% come from the Indian Ocean (IO) in western Indonesia; and of the IO tuna caught, 36% are neritic tuna—an important food security protein source. High-value tuna catches are exported to the US or EU for canned tuna or tuna steaks and to Japan for sashimi.

In addition to marine fisheries resources, the pilot area encompasses world class surf tourism destinations, including the Mentawai Islands in West Sumatra province and the Nias islands in North Sumatra.

Local drivers of degradation

Reefs are under immediate and direct threat from climate change (increased sea surface temperature, sedimentation due to erosion from increased runoff and deforestation, ocean acidification), overfishing and destructive fishing, coastal development, watershed-based pollution, agricultural expansion, land conversion to aquaculture, and marine-based pollution and damage. A study on the global threats of coral reefs revealed that 91% of the Indonesian reefs are under medium and higher threats; the remaining 9% face low threat.¹¹ The study also highlighted that 92% of the Indonesian coral reefs are under threat from combined local causes and thermal stress that can lead to coral bleaching; and that more than 80% of Indonesia's reefs are likely to experience coral bleaching in five out of every 10 years through the 2030's.¹² Even with good management practices in place, coral cover is expected to decrease. The International Panel on Climate Change (IPCC) predicts that mass coral reef die-off will occur as early as 2040, which will wipe out coastal fish populations around the world.¹³ By the end of the century, it is expected that many coral species will become extinct or extremely rare.¹⁴

Overfishing and destructive fishing/destructive fishing practices

Lack of sustainable fisheries management plans, destructive fishing practices and unsustainable aquaculture are a major contributor to the ecosystem vulnerability that, in the longer term, will threaten the livelihoods of coastal communities in WPP 572. Without effective management, fisheries will continue to face threats of overfishing. Field observations found that the use of low-explosive coral bombing (blast fishing) in Lampung was a relatively common practice; this adds additional pressure to coral reef



restoration and preservation as warming and acidification already render the coral weak due to bleaching. Similarly, field observations also found that the use of large trawls with small mesh that graze the sea floor in shallow waters destroy coral reef systems and capture endangered and banned fishing species (including sharks). Though these practices are banned by Law 45/2009 as revised by the Omnibus Law on Job Creation, fieldwork research across all provinces within WPP 572 found that there is weak enforcement and insufficient local financing directed toward preventing illegal, unreported, and unregulated (IUU) fishing. MPA management also suffers from insufficient financing and capacity of authorities to effectively oversee the implementation of natural ecosystem protection; one study found that most of the MPAs in Indonesia are not sustainably managed as a result of inadequate infrastructure, facilities and human resources.

Unsustainable tourism

Coastal ecosystems in certain regions are under stress due to untreated waste, unsustainable production, and high tourism demand. Notably, Labuan Beach in Banten is significantly affected, with an estimated 200 tons of untreated waste, making it Indonesia's dirtiest beach. In Lampung, the bay's geomorphology exacerbates waste issues, with a substantial portion of beach waste originating from the ocean. A study highlights that plastic dominates the waste accumulation in Lampung Bay. Additionally, industrial pollution, such as wastewater from crude palm oil factories, significantly impacts ocean health, as observed in the Muko-muko Regency. Recognizing and addressing this nexus is imperative for implementing effective strategies that integrate waste management, climate resilience, and coastal conservation measures.

Climate change/climate adaptation risks

Areas within the pilot area (Sumatra) are expected to experience decreased rainfall and increased temperatures in the dry season. The west coast of Sumatra is highly affected by the Indian Ocean Dipole (IOD) where temperature differences in the west and east IO drive extreme weather patterns. An extreme "positive" IOD event (i.e., cooler sea surface temperature in east IO) in 1997 caused sea surface temperature in west Sumatra to drop 4°C. The cooler temperatures caused nearly 100% coral and fish mortality around the Mentawai Islands.¹⁵ Climate modeling projects an increase in extreme positive IOD events—globally there have been four of these events in the last 60 years. In contrast, there have only been six events in the entire preceding 1,000 years.¹⁶

Aquaculture development

Intensive aquaculture further compounds the climate threats that mangrove and seagrass ecosystems face, especially in Lampung province. Field observations found that the untreated wastewater from shrimp aquaculture severely pollutes mangrove and seagrass ecosystems, which are already facing increasing, climate-driven sedimentation. The two most significant threats from aquaculture in coastal areas to the ecosystems are untreated wastewater discarded to the ocean and direct conversion of mangroves to aquaculture.

Stewards of the marine area

The management of WPP 572 involves a coordinated effort between the national and subnational governments. Provinces such as Aceh, North Sumatra, West Sumatra, Bengkulu, Lampung, and Banten, along with various municipalities and cities within these provinces, are integral to its administration.

Blue Ecosystem Adaptation Mechanism (BEAM) - Blue Halo S grant facility (Draft funding proposal)

The Project (BEAM) responds to a gap in the enabling conditions for building pathways to blue investments along with direct climate change interventions with an integrated program for ocean protection and blue economy financing, the Blue Halo S sustainable protection-production model. This model addresses climate driven pressures threatening the climate adaptation and mitigation potential of WPP 572's coastal communities, ecosystems, and financial sector.

This Project aims to establish a protection-production model in WPP572 to address climate impacts on vulnerable coastal communities, mitigate GHG emissions, and facilitate large scale investment in the blue economy. The overarching goal is to support the Government of Indonesia's goal of making the blue economy sector sustainable and a productive component of the country's sustainable economic development strategy.

BEAM is designed to strengthen the capacity to design and implement blue financing and support the development of blue enterprise partners to effectively deploy and implement projects that can support sustainable marine and coastal protection and production. This improved capacity to prepare blue economy projects for investment creates the foundation for the complementary Blue Halo S - Blue Financing Facility GCF Project (in development) and other blue finance mechanisms to expand investments in the blue economy. The two projects are linked through broader objectives of a Blue Halo S Platform, as depicted in figure below.

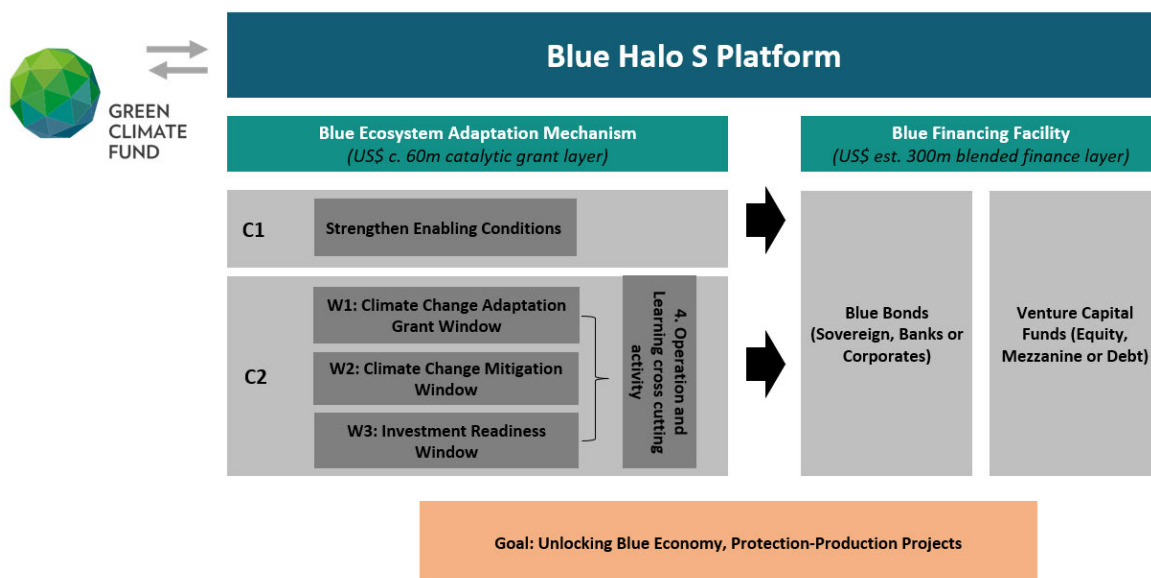


Figure 4. Blue Ecosystem Adaptation Mechanism (BEAM) Design

Annex C – TeKSI Workplan for Replenishment Period

	List of activities	Deliverable, objectives, and targets of activity
Outcome 1: Sustainable, long-term financing for effective MPA management and enforcement		
Output 1.1: MPA FINANCING: Increased, diversified and more sustainable revenue sources that support MPA management in Priority Areas in the Bird's Head Seascape through (a) a coral reef focused debt for nature swap for the Blue Abadi Fund, and (b) the replication of relevant MPA governance and financing models first piloted in Raja Ampat.	Activity 1.1.1: Participate in the negotiations for a debt for nature swap and support the design of related governance and administrative components. If agreement is reached, co-invest in the debt for nature swap, thus closing Blue Abadi's financial gap in perpetuity. Phase II: Support in building the structure and management of the debt for nature swap (TFCCA)	1. TFCCA structure established and operationalized - December 2025 Fund mobilization for priority conservation projects and reef-positive businesses in BHS and LSS - June 2027
	Activity 1.1.2: Develop a sustainable financing plan for Cenderawasih Bay National Park and an improved user fee mechanism to support park management costs.	This activity will no longer be continued. TeKSI project will be expanded to a new geography, Fisheries Management Areas 572 (Indonesia Eastern Indian Ocean Seascape).
	Activity 1.1.3: Build the capacity of the newly established Bomberai BLUD to secure and manage sustainable financing for the Kaimana and Fak-Fak MPAs through a combination of sources. Phase II: capacity building activities will be expanded to Sawu Sea Marine National Park, the protected areas in East Sumba.	1. Training conducted for Bomberai BLUD staffs on technical (e.g. MPA monitoring, data management and reporting) and financial (e.g. financial reporting, sustainable financing, etc.) - June 2026 2. Design and implementation plan of Bomberai BLUD tourism and fisheries plan - June 2026 3. Technical supports to BKKPN Kupang in development of a comprehensive roadmap focusing on coral reef protection and fostering community engagement in conservation efforts - June 2026
	Activity 1.1.4: Support development and implementation of MPA sustainable financing model of BLUD in WPP 572	1. Establishment BLUD West Sumatra of FMA 572 - June 2027 2. Draft of surf fee regulation using results from willingness to pay study in FMA 572 - June 2026
OUTCOME 2—TRANSFORM BHS ECOTOURISM: Culturally appropriate, reef-positive economic development and livelihood initiatives are cultivated in the Bird's Head Seascape, in and around the MPA network, with an initial focus on ecotourism, thus reducing the rates of poverty and food insecurity and creating jobs for local reef-dependent communities, while incentivizing continued coral-reef conservation.		
OUTPUT 2.1—RESPONSIBLE ECOTOURISM GROWTH: The anticipated growth of ecotourism in the Bird's Head Seascape is thoughtfully planned, geographically	Activity 2.1.1: In partnership with the Raja Ampat Regency Government and West Papua government, develop a Tourism Spatial Plan for Raja Ampat future tourism developments.	This activity has been completed in Phase I.



<p>dispersed, and well-managed, ensuring sustainable ecotourism grows in such a way that reduces impact to coral reefs and maximizes benefits to local communities while incentivizing continued conservation.</p>	<p>Activity 2.1.2: In partnership with the Raja Ampat Regency Government and West Papua government, draft comprehensive tourism management legislation for Raja Ampat.</p>	<p>This activity will be continued in Phase II through providing technical supports to the legalization of tourism spatial plan - June 2027</p>
	<p>Activity 2.1.3: Conduct community, government, and stakeholder consultations to generate and vet investment pipeline across all eco-tourism activities (Outputs 2.1-2.3)</p> <p>Phase II: The activity will be focused on strengthening stakeholders' capacity on reef positive and responsible tourism through establishment of multistakeholder forum on sustainable tourism in Raja Ampat</p>	<ol style="list-style-type: none"> 1. Multi-stakeholder forum established and conducted regular discussion on sustainable tourism in Raja Ampat - June 2027 2. Multi-stakeholder forum produced Reef-positive tourism investment guidance and framework for Raja Ampat - June 2027 3. Sustainable tourism business investment pipeline is identified - June 2026 4. Multistakeholder forum shared reef positive tourism guidelines and best practiced for enhanced tourism legislations - June 2027
	<p>Activity 2.1.4: Once Tourism Spatial Plan is complete (Activity 2.1.1), begin structuring a package of tourism infrastructure development investments and/or a plan for a sustainable resort investment for the GFCR Equity Fund</p>	<p>In Phase II, this activity will be covered under activity 2.1.3</p>
<p>OUTPUT 2.2—INCLUSIVE TOURISM DEVELOPMENT SUPPORT: Equitable access to financing and technical support for micro, small, and medium reef positive eco-tourism enterprises is increased, with a specific focus on Papuan and women-led enterprises and sustainable enterprises at risk of COVID-caused bankruptcy.</p>	<p>Activity 2.2.1: Explore demand, opportunities, and constraints to commercial microfinance access in West Papua. Assess the demand for commercial microfinance and needs for related technical assistance in West Papua with emphasis on Papuan and/or women-led microenterprises in the ecotourism sector.</p> <p>Phase II: this activity will be implemented through the establishment of village-based reef-positive tourism enterprise in Bomberai (also covers Activity 2.2.3)</p>	<ol style="list-style-type: none"> 1. Completed feasibility study and business model generation of potential tourism village in Bomberai - June 2025 2. Operationalization, support, and monitoring of village-based ecotourism business - June 2027
	<p>Activity 2.2.2: Diversify BHS ecotourism SMEs by investing, via CI-Ventures, in a portfolio of diverse coral-positive small or medium enterprises in the eco-tourism industry, including structuring COVID recovery financial packages in exchange for reef-positive sustainability commitments.</p>	<p>This activity will be covered under Activity 4.2.3.</p>
	<p>Activity 2.2.3: Scope potential for establishing a tourism training centre for BHS</p>	<p>In Phase II, this activity will be covered under Activity 2.2.1.</p>



		The village-based tourism enterprise will be designed as a model for community-based tourism in BHS which provides opportunities for awareness and learning.
OUTPUT 2.3—ECOTOURISM THREAT REDUCTION: Direct impacts of the ecotourism industry on coral reef ecosystems in the Bird's Head Seascape, including from anchor damage, plastic waste, and wastewater, are reduced.	Activity 2.3.1: Develop a fully functional, legally mandated, and self-financing Raja Ampat Mooring System (RAMS).	<ol style="list-style-type: none"> 1. Willingness to pay study to inform the tariff for RAMS fee - June 2025 2. Development of RAMS business model and governance - June 2025 3. Construction and maintenance of RAMS in 10 priority pilot points - June 2027
OUTCOME 3—ENHANCED ECONOMIC RESILIENCE THROUGH REEF-POSITIVE SEAWEED DEVELOPMENT: Enhanced economic resilience for Sumba Island communities and reduction or avoidance of adverse impacts to coral reefs through development and expansion of sustainable, equitable, and coral-positive seaweed mariculture industry livelihood alternatives		
Output 3.1: EVIDENCE-BASED FRAMEWORKS FOR REEF-POSITIVE SEAWEED DEVELOPMENT: Foundational research to guide near-term reef positive mariculture siting and growing practices and long-run disease and climate resilience	Activity 3.1.1: Undertake East Sumba baseline biophysical, bioecological, and socioeconomic baseline assessments.	This activity has been completed in Phase I.
	<p>Activity 3.1.2: Support and advance seaweed disease and climate resilience research.</p> <p>Phase II: this activity will be implemented through the establishment of pilot local seaweed hatchery business; assist the establishment of Indonesia Tropical Seaweed Resilience Institute.</p>	<ol style="list-style-type: none"> 1. Support for business model development, establishment, and implementation of local hatchery business - June 2027 2. Technical supports to Indonesian agencies for the establishment of Indonesia seaweed resilience research centre - June 2027
Output 3.2: ROADMAP FOR INVESTMENT IN REEF-POSITIVE SEAWEED DEVELOPMENT: Roadmap for investment in reef-positive enterprises and initiatives	Activity 3.2.1: Design and develop coral reef-positive seaweed investment guidance, and impact monitoring and assessment framework and tools.	<ol style="list-style-type: none"> 1. Development of ecological and socio-economic safeguards of reef-positive seaweed industry - June 2027 2. Reef-positive tourism investment guidance and framework are developed - June 2027 3. Sustainable seaweed business investment pipeline is identified - June 2027
	Phase II: this activity will be implemented through the establishment of multistakeholder forum on reef positive seaweed development for strengthening downstream and upstream cooperations (also covers activity 3.2.2)	
	Activity 3.2.2: Explore opportunities and constraints to sustainable, coral-positive seaweed sector investment in Sumba and development of investment roadmap.	In Phase II, this activity will be covered under Activity 3.2.1.
	Activity 3.2.3: Develop pipeline of SMEs within and across the seaweed value chain that have potential to deliver positive, quantifiable sustainable development, and livelihood	<ol style="list-style-type: none"> 1. Training conducted on reef-positive seaweed cultivation practices and standardized cultivation and storage procedures in East Sumba - June 2026 2. Setting up facility of seaweed first handling process, such as sun-drying, packing and stocking in East Sumba - June 2026



	<p>benefits while reinforcing coral reef protection and conservation.</p> <p>Phase II: this activity will be implemented by empowering capacity of local communities on reef positive seaweed cultivation and business development</p>	
	Activity 3.2.4: Reef-positive seaweed production and monitoring in Ekas Bay (Lombok)	<ol style="list-style-type: none"> 1. Training conducted on reef-positive seaweed cultivation practices for seaweed farmers and local communities in Ekas Bay - June 2026 2. Reef-positive monitoring framework and safeguard for Ekas Bay are established - June 2027
OUTCOME 4—TRANSFORM ACCESS TO FINANCING FOR REEF-POSITIVE ENTERPRISES: Reduced barriers to financial access for coral-positive micro, small, and medium enterprises		
Output 4.1: Pipeline of reef-positive investment opportunities in Priority Sites	<p>Activity 4.1.1: Develop pipeline of strategically and thematically aligned coral-positive investment opportunities in GFCR Indonesia Priority Areas.</p> <p>Phase II: this activity will be continued through building pipeline and network of reef-positive investment opportunities (also covers Activity 4.2.1 and 4.2.2)</p>	<ol style="list-style-type: none"> 1. Identify potential reef positive business in priority areas, evaluate the investment readiness, and decide the approach to invest (direct investment or provide access to technical assistance and grant) - June 2027 2. Enhance network within country financial institutions and provide awareness and knowledge in reef positive investment - June 2027 3. Facilitate and bridge the financial institution network to access the reef-positive business portfolio and pipeline - June 2027
Output 4.2: INVESTMENT MOBILIZATION: Mobilization of initial portfolio of REEF-positive investments in GFCR Priority Areas	Activity 4.2.1: Form, establish, and operationalize dedicated GFCR Indonesia investment window with CI Ventures.	This activity has been conducted and will be continued in Phase II through Activity 4.2.3.
	Activity 4.2.2: Capitalization of dedicated GFCR Indonesia investment window within CI Ventures.	This activity has been conducted and will be continued in Phase II through Activity 4.2.3.
	Activity 4.2.3: Investment execution and portfolio management	Direct investment to reef-positive enterprises through CI Ventures - June 2026

Annex D – Grant Co-Financing

Project Title	Source Type	Type	Status	Period	Total Funding	Co-Financing Lines	True Co-Financing Amount
Strengthening resilience and sustaining biodiversity in the marine and coastal ecosystems and communities in selected (transboundary) seascapes of the Coral Triangle	Public Funding	True	Secured	Jun 2024 - Dec 2026	\$ 2,971,800	Outcome 1 Outcome 3 Management and Operations	\$ 2,971,800
Empowering Stakeholder' collaboration to scale marine conservation for blue economy in BHS and TNP	Philanthropy	True	Secured	Jul 2024 - Jun 2027	\$ 1,500,000	Outcome 1 Outcome 2 Outcome 3 Management and operation	\$ 1,000,000
Consolidation and Expansion of BHS MPA Network	Foundation	True	Secured	Jul 2024 - Jun 2027	\$ 750,000	Outcome 1 Outcome 2	\$ 750,000
Implementation of Integrated Mangrove Protection and Fisheries Production Management: A Blue Halo S Pilot in WPPRI-572	Public Funding	Parallel	Secured	Mar 2023 - Jun 2025	\$ 530,000	Management and Operations	\$ 26,500
Protecting Indonesia's Outstanding Mangroves, Coastal Forests and Marine Biodiversity through the Power of Surf Protected Areas	Foundation	Parallel	Secured	Oct 2023 - Oct 2025	\$ 200,000	Management and Operations	\$ 10,000
Building Coastal Resilience through Nature-Based and Integrated Solutions - Risk Financing and Insurance Solutions for Coastal Resilience	Public Funding	Parallel	Secured	Dec 2023 - Feb 2025	\$ 500,000	Management and Operations	\$ 50,000



Development of a Marine Protected Area (MPA) dedicated to the protection of critical whale shark habitat and support for sustainable ecotourism in Saleh Bay, Indonesia	Public Funding	True	Secured	Jul 2024 - Jun 2025	\$ 546,101	Outcome 1	\$ 491,491
Mangrove-Positive Livelihood Investments	Foundation	True	Secured	Jan - Dec 2024	\$ 1,500,000	Outcome 4	\$ 1,500,000
TOTAL SECURED					\$ 8,497,901	TRUE/PARALLEL CO-FINANCING SECURED	\$ 6,799,791
Blue Halo S	Public Funding	True	Anticipated	2025 – TBD	\$ 46,000,000	Outcome 1 Outcome 2	\$ 13,800,000
Establishment of MPA Wetar and Belu of Lesser Sunda Seascape	Foundation	True	Anticipated	Jul 2024 - Jun 2027	\$ 750,000	Outcome 1	\$ 750,000
TOTAL ANTICIPATED					\$ 46,750,000	TRUE CO-FINANCING ANTICIPATED	\$ 14,550,000
GRAND TOTAL OF CO-FINANCING					\$ 53,747,901	TOTAL OF TRUE CO-FINANCING	\$ 19,849,791

Annex E – M&E and Results Framework

	Headline indicators	Component indicators	Baseline	Phase 1 Target	Midterm Targets - June 2027	End of Programme Target	Means of Verification
F1	Coral reef extent of GFCR project	F1.1 ha of coral reefs in GFCR programming	437,980 ha	437,980 ha BHS: 418,732 ha LSS: 78,975 ha	563,718 ha BHS: 418,732 ha LSS: 78,975 ha IEIOS: 125,738 ha	563,718 ha BHS: 418,732 ha LSS: 78,975 ha IEIOS: 125,738 ha	http://allencoralatlas.org
F2	Area (ha) of coral reefs under conservation and sustainable management	F2.1 ha of MPAs	256,293 ha	256,293 ha Raja Ampat: 225,000 ha Bomberai: 25,821 ha East Sumba: 5,472 ha	363,774 ha Raja Ampat: 225,000 ha Bomberai: 25,821 ha Lombok: 20 ha Savu Sea National Park: 63,063 ha West Sumatra: 49,867 ha	363,774 ha Raja Ampat: 225,000 ha Bomberai: 25,821 ha Lombok: 20 ha Savu Sea National Park: 63,063 ha West Sumatra: 49,867 ha	http://allencoralatlas.org MMAF map
F4	Change in coral reef health	F4.1 Average live hard coral cover, %	(2019) BHS: 36% East Sumba: 5-70% (2023) BHS: 32.08% East Sumba: 36.5% (2024) Lombok (Ekas Bay): 15.8% West Sumatra: 32.41%	BHS: 32.08% East Sumba: 36.5%	BHS: 32.08% East Sumba: 36.5% Lombok: TBD West Sumatra: 32.41%	BHS: 32.08% East Sumba: 36.5% Lombok: TBD West Sumatra: 32.41%	Survey reports from research partners, reef health monitoring in reference MPAs and control sites every 2 years

		F4.3 Average reef fish biomass, kg/ha	(2018) BHS: 517 kg/ha EastSumba: 269.9 kg/ha (2023) BHS: 517 kg/ha East Sumba: 146 kg/ha	BHS: 517 kg/ha East Sumba: NA	BHS: 517 kg/ha East Sumba: 146 kg/ha Lombok: TBD West Sumatra: TBD	BHS: 517 kg/ha East Sumba: 146 kg/ha Lombok: TBD West Sumatra: TBD	Survey reports from research partners, reef health monitoring in reference MPAs and control sites every 2 years
F5	Number of communities engaged in meaningful participation, co-development and capacity strengthening	F5.1 Number of communities engaged in meaningful participation and co-development	0	5	9	10	Engagement report
		F5.2 Number of local organizations engaged in meaningful participation and co-development	0	2	11	13	Engagement report
		F5.3 Number of local scientific/research partners involved in strengthening capacity for participation and co-development (e.g., national universities, regional science organizations)	0	4 university research partners 2 regional organizations	5 university research partners 2 regional organizations	5 university research partners 2 regional organizations	Agreement signed

		F5.4 Number of local practitioners trained / supported in coral reef conservation (e.g., community rangers)	0	0	190	250	Engagement report
		F5.5 Number of agreements with local authorities or fishing cooperatives to manage marine resources (e.g., LMMAs, MPAs, OECMs)	0	1	6	6	MoU signed
		F5.6 Number of national policies linked to GFCR engagement, e.g., NBSAPs, blue economy policies, national MPA declarations)	0	2 2 policies in sub-national level: - Tourism spatial plan in Raja Ampat - Entrance fee regulation in Bomberai	4 4 policies in sub-national level: - Tourism spatial plan in Raja Ampat - Entrance fee regulation in Bomberai - Seaweed seedling governance - RAMS operationalization and maintenance framework	8 4 policies in sub-national level: - Tourism spatial plan in Raja Ampat - Entrance fee regulation in Bomberai - Seaweed seedling governance - RAMS operationalization and maintenance framework 4 national policies related to: - Indonesia MPA target 30% by 2045 - National biodiversity strategy - Sustainable fisheries roadmap - Blue economy policy	Technical document finalized
F6	Number of people supported through livelihoods, direct jobs, income, and nutrition	F6.1 Number of direct jobs created (disaggregated by gender, age, disability, Indigenous peoples, small-scale producers)	BHS: 60	100	300	600	Monitoring report
		F6.2 Number of people with increased income and/or nutrition from GFCR support (disaggregated by gender, age,	0	100	450	1,000	Monitoring report

		disability, Indigenous peoples, small-scale producers)					
F7	Number of people supported to better adapt, respond and recover to the effects of climate change and major external shocks as a result of GFCR	F7.1 total direct beneficiaries (disaggregated by gender, age, disability, Indigenous peoples, small-scale producers)	0	100	540	1,150	Monitoring report
		F7.2 total indirect beneficiaries (disaggregated by gender, age, disability, Indigenous peoples, small-scale producers)	0	0	719,368	719,368	Monitoring report
		F7.3 Number of financial mechanisms/reforms to help coastal communities respond and recover from external shocks (e.g., insurance, loans, village savings, restoration crisis plans, etc)	0	0	3	3	Monitoring report
F8	Amount of public, private, and philanthropy finance mobilized by the GFCR	F8.1 Amount, number and type of public investments	0	<u>Fund Level:</u> Amount: USD 4,547,901 Number: 4 Type: Grant <u>Portfolio Level</u> Amount: USD -- Number: -- Type: --	<u>Fund Level:</u> Amount: USD 69,000,000 Number: 1 Type: Grant <u>Portfolio Level</u> Amount: USD -- Number: -- Type: --	<u>Fund Level:</u> Amount: USD 69,000,000 + 250 million (GCF non-grant facility) Number: 1 Type: Grant dan non-grant <u>Portfolio Level</u> Amount: USD -- Number: -- Type: --	KI/CIV report "Fund Level" targets refer to financing and investment mobilized by CI/CI Ventures at the fund level. "Portfolio Level" targets refer to financing and investment mobilized by CI Ventures portfolio companies.
		F8.2 Amount, number and type of private investments	0	<u>Fund Level:</u> Amount: USD 4,973,500 (CI) Number: 6 Type: Grant <u>Portfolio Level</u> Amount: USD 1,050,000	<u>Fund Level:</u> Amount: USD 6,000,000 (CI) Number: 3 Type: Grant <u>Portfolio Level</u> Amount: USD 3,500,000 Number: 10	<u>Fund Level:</u> Amount: USD -- Number: -- Type: -- <u>Portfolio Level</u> Amount: USD 7,750,000 Number: 20	KI/CIV report "Fund Level" targets refer to financing and investment mobilized by CI/CI Ventures at the fund level. "Portfolio Level" targets refer to financing and investment



				Number: 3 Type: Debt / Equity / Convertibles	Type: Debt / Equity / Convertibles	Type: Debt / Equity / Convertibles	mobilized by CI Ventures portfolio companies.
		F8.3 Amount, number and type of philanthropy investments	0	<u>Fund Level:</u> Amount: USD 1,500,000 (CIV) & 5,325,000 (CI) Number: 1 (CIV) & 4 (CI) Type: CIV co-financing / Grant <u>Portfolio Level:</u> Amount: USD -- Number: -- Type: --	<u>Fund Level:</u> Amount: USD 2,500,000 (CIV) & 1,500,000 (CI) Number: 2 (CIV) & 1 (CI) Type: CIV co-financing / Grant <u>Portfolio Level:</u> Amount: USD -- Number: -- Type: --	<u>Fund Level:</u> Amount: USD 3,500,000 (CIV) Number: 3 (CIV) Type: CIV co-financing <u>Portfolio Level:</u> Amount: USD -- Number: -- Type: --	KI/CIV report "Fund Level" targets refer to financing and investment mobilized by CI/CI Ventures at the fund level. "Portfolio Level" targets refer to financing and investment mobilized by CI Ventures portfolio companies.
		F8.4 Number of businesses and sectors with GFCR funding sources	0	Number: 3 Sector(s): Eligible Sectors (see Notes)	Number: 10 Sector(s): Eligible Sectors (see Notes)	Number: 20 Sector(s): Eligible Sectors (see Notes)	KI/CIV report
		F8.5 Number and type of sustainable finance mechanisms	0	Number: 3 Type: Debt / Equity / Convertibles	Number: 10 Type: Debt / Equity / Convertibles	Number: 20 Type: Debt / Equity / Convertibles	KI/CIV report
		F8.6 Leverage/mobilization ratio by sector (fisheries, water quality, restoration) of GFCR investment to other mobilized financing	0	Portfolio Leverage Ratio: 1:9x	Portfolio Leverage Ratio: 1:9x	Portfolio Leverage Ratio: 1:9x	KI/CIV report
F9	Amount of revenue and ROI (\$)	F9.1 Amount of revenue and ROI generated from sustainable financing (by type)	0		0		Portfolio company financial statements and records; CIV Annual Impact Reporting

		F9.2 Number and type of sustainable revenue streams	0	N/A	2 - Conservation Funding - Business Incubation and Investment	4 - Conservation Funding - Business Incubation and Investment - Fees and Payments - Eco-Tourism and Wildlife Experiences	KI/CIV report
		F9.3 Amount (and %) of revenue in local enterprises	0	N/A	Total Portfolio Revenue: USD 30,000 Revenue to Local Enterprises: USD 30,000 (100%) [327,000 in payments to local suppliers]	Total Portfolio Revenue: USD 60,000 Revenue to Local Enterprises: USD 60,000 (100%) [500,000 in payments to local suppliers]	Portfolio company financial statements and records; CIV Annual Impact Reporting
F10	Number of gender-smart investments	F10.1 Number of GFCR investments qualified as 2X Challenge standards, and % of total GFCR investments	0	Number: 1 % of GFCR Investments: 30%	Number: 4 % of GFCR Investments: 40%	Number: 10 % of GFCR Investments: 50%	Portfolio company financial statements and records; CIV Annual Impact Reporting

Additional Sectoral Monitoring Indicators

Seaweed - Data provided by Badan Pusat Statistik (Central Bureau of Statistics - Indonesia) every year or 3 years.

1. Number of seaweed farmer households (by province, district, main location of cultivation and main point of sales)
2. Number of seaweed farmer managed by female households (by province, district and education status)
3. Number of seaweed farmer households' members aged 15 years and above who manage seaweed aquaculture (by province and gender)
4. Estimated total seaweed production (by volume, province and harvest month)
5. Estimation of production value of seaweed (by region and harvest month)

Ecotourism - Data provided by Badan Pusat Statistik (Central Bureau of Statistics - Indonesia) every year.

1. Number of international and domestic visitors in Raja Ampat Regency
2. List of tourism ship operated in Raja Ampat Sea
3. Number of accommodations by subdistricts in Raja Ampat Regency

Annex F – GFCR Safeguards and Gender

Social and Environmental Safeguards

Risk

During the 18-month inception phase, the regular monitoring conducted by the KI team did not find any significant impact or probability change that altered the risk rating from the previous Social and Environmental Screening Procedure (SESP) approved in the programme proposal. However, with the shift of scale from baseline studies and enabling conditions in Phase 1 to implementation in Phase 2, there are several considerable adjustments that will need to take place in the SESP, specifically in the focus of cultural heritage utilization (Risk #13 and #19) and impact of the project to Indigenous People (IP) (Risk #15 and #16).

With the focus on developing and piloting the reef-positive tourism model previously mentioned in solution 2, there is a higher chance of commercialization exposure of the local culture to the outside society which might result in a shift, mixing, or even partial or complete loss of heritage and values. Due to this consideration, the significance ratings of Risk #13 and #19 are increased to Moderate and the impact value of Risk #19 is also increased from 2 to 3.

Related to the same aim to pilot reef-positive tourism model, it is expected that the project will be located on lands and territories claimed by IP (Risk #15) and will affect their natural resources and traditional livelihoods (Risk #16) throughout all the priority implementation areas. This is translated into a higher significance from Medium to High for Risk #15 and from Low to Moderate for Risk #16.

In order to mitigate these risks, measures will involve the creation of a local advisory council who will evaluate the tourism development ideas and enterprises incubated with authority to veto any proposed investment that is deemed discriminatory for IP or advise on the provision of differentiated measures that ensure the inclusion and equitable access to benefits for vulnerable and marginalized male and female local community members.

Overall, the project risk level for Phase 2 is expected to stay at Moderate based on the SESP guidance, even with the changes involved in several topics mentioned above.

Compliance

Compliance and risk logs are updated regularly for any changes that occurred and are reported by the field officer to the Environment and Social Administrator (ESA) or M&E team. The monitoring involved physical and financial oversights, where physical monitoring focused on the extent to which changes in environmental or social conditions have occurred and financial monitoring reviewed the expenditure costs.

In Phase 2, based on the results of the Phase 1 study on the RAMS development, Principal 3 (Environmental Sustainability) in Standard 3 Article 3.3 is expected to change from 'Maybe' to 'No', as it has now been confirmed that no large-scale infrastructure development will be required.

Gender Analysis and Gender Action Plan



Several gender issues were initially raised in the project proposal, such as how gender mainstreaming in the policy of the Minister of Maritime Affairs and Fisheries Decree has proven to be effective and efficient in encouraging equal participation and access between men and women in cultivation and collection activities in coastal areas. Baseline analysis concluded that in the national and local government-level analyses, the GDI reached 1.0, indicating equal access, control, and participation between men and women. The policy is therefore deemed effective in encouraging gender equality and participation in coastal activities. At the community level, the GDI for dependents >6 people/family = 1.1 meaning that women play a greater role in providing for the needs of family members. In Phase 1, women's involvement in stakeholder engagement was identified to be 24.8%, yet their access to financial resources was still very limited.

Specifically observed in the activities in Intervention 4, women played significant and diverse roles in society, both in the public, domestic, and community sectors including caring for children, managing household chores, and running small businesses simultaneously. Furthermore, women have supported their families' financially during times of crisis by seeking additional income. Women also played a crucial role in seaweed cultivation and processing, as well as in sustaining households in coastal communities. For example, women were actively involved in various stages of seaweed cultivation, contributing to 65%–70% of the process. They also participated in processing seaweed into various food products. Therefore, the role of women in coastal communities is vital and multifaceted, even though there is a perception that women are primarily involved in domestic tasks.

By continuing to engage women in these project activities, the programme promotes gender equality by giving women access to financial resources and empowering women-owned businesses.

For Phase 2, KI is adopting the M&E and Results Framework set by GFCR and adjusting them to meet the programme's applicability (provided in Annex E – M&E and Results Framework for details), then developing a Gender Action Plan to be implemented in the long-term (provided in the Table 6 below). Monitoring of these initiatives will be done regularly by the M&E team, along with other indicators stated in the framework.

Table 7. Gender Action Plan

Objective Description	Action plan	Indicator	Milestones	Remarks
OUTCOME 1: PROTECT BHS				
Strengthen women's participation in MPA management and ensure plans are inclusive of the requirements and target participation.	<ul style="list-style-type: none"> Provide guidance on gender inclusion plan for MPA Bomberai Invite networks of local groups to help disseminate information and strengthen participation of women in communities, making information and communications materials appropriate and accessible 	# of women and men participate in training on financial management of Bomberai BLUD	Financial and MPA management capacity building and its implementation with inclusive gender.	In the pursuit of sustainable Marine Protected Area (MPA) Management ensure balanced gender representation. This includes equal involvement of all genders, with a particular emphasis on women's participation. The goal is to foster a safe and inclusive environment where everyone, regardless of their gender, feels valued and their voices are heard. This approach not only promotes gender equality but also contributes to the overall effectiveness and sustainability of MPA management.
OUTCOME 2: TRANSFORMED BHS ECOTOURISM; OUTCOME 3: ENHANCED ECONOMIC AND LIVELIHOOD RESILIENCE FOR LOCAL COMMUNITIES THROUGH REEF-POSITIVE INDUSTRY DEVELOPMENT AND OUTCOME 4: TRANSFORM ACCESS TO FINANCING FOR REEF-POSITIVE ENTERPRISE				
Enhance the active involvement of women in income-generating activities and guarantee that the strategies implemented meet their needs.	<ul style="list-style-type: none"> Develop attendance list that segregates by gender. Develop invitation letter template that include women groups/enterprises. Financial literacy training for women managing the village-owned enterprises and community businesses 	# of women and men participate in the trainings or capacity buildings, disaggregated by gender, vulnerable group, and indigenous people.	Balance portion of gender involvement of indigenous people and vulnerable people in capacity-building activities.	Advocating for an inclusive approach to economic activities, where women, indigenous people, and vulnerable groups are not just beneficiaries but active participants. the strategies that not only provide these groups with income-generating opportunities but also ensure that these opportunities are aligned with their specific needs and promote their active involvement. This approach is crucial for achieving economic empowerment and reducing vulnerability among these groups.
		# of Indigenous people obtained business opportunities and job creation disaggregated by gender.	Establishment of community businesses and job creation with gender inclusion, indigenous people, and vulnerable people.	
		# of women vulnerable people who obtained access to jobs created and business opportunities disaggregated by gender and sector.		
		# women-led businesses that can access financing.	Women led businesses obtained financial access to develop their businesses.	



Annex G – Conservation International Ventures

A. Conservation International Ventures

1. **General Overview:** Conservation International Ventures (“CIV”) is an impact-first investment vehicle that provides debt, equity, and hybrid financing solutions for climate and nature-positive small-medium enterprises in areas of high conservation value in the countries where Conservation International (“CI”) operates. CI is the sole member of CIV, a Delaware (U.S.) limited liability company (LLC), and controls the legal, fiscal, and administrative affairs of CIV.
2. **Capitalization:** CIV is capitalized through a combination of conventional and recoverable grants which are deployed in the form of debt or equity investments (see description of Investment Instruments in Section X below) in portfolio companies. CIV does not currently receive or manage return-seeking capital.
3. **GFCR Investment Window:** In connection with this program, CIV has established a dedicated GFCR Investment Window within CIV focused on incubating a portfolio of ‘reef-positive solutions’ that have a *positive impact on coral reef health while providing sustainable benefits for local communities*. The CIV GFCR Investment Window will operate for the duration of the program.

B. GFCR Funding Mechanism

1. **Recoverable Grant:** Funding provided to CI for deployment through CIV for the purpose of direct investment in a portfolio of strategically and thematically aligned coral reef positive enterprises and/or projects will be in the form of a recoverable grant deliverable at the end of the Program Term.
2. **Recoverable Amount:**
 - 2.1. Funding eligible for recovery at the end of the Program Term shall be limited to the portion of GFCR funding provided for the purposes of CIV portfolio investment.
 - 2.2. The amount of GFCR funding recoverable at the end of the program term will be based on the repayment/recovery performance of CIV portfolio investments and will be calculated as the lower of:
 - (a) the principal amount of GFCR funding allocated to CIV portfolio investments; or
 - (b) the repaid/recovered amounts of the GFCR-funded portion of the CIV investment portfolio, including any realized income, expenses, gains, and losses (the “Residual Balance”).
 - 2.3. In the event the Residual Balance exceeds the principal amount of GFCR funding allocated for CIV portfolio investments, such excess will be retained by CIV as a grant released from restriction which may be reinvested by CIV in future investment opportunities aligned with the conservation objectives, mandate and charitable purposes of CIV.



- 2.4. If requested in writing by the GFCR, CIV will repay recoverable amounts due within ninety (90) days of the end of the Program Term. In the event the GFCR elects not to request repayment of recoverable grant funding provided to CIV, the total amount of Residual Balance will be reinvested in future investment opportunities aligned with the conservation objectives, mandate and charitable purposes of CIV.

C. Governance and Management

1. **Governance:** The activities of CIV are governed by CI in accordance with existing CIV governance, and fiscal and administrative policies.

2. Management

- 2.1. In each case consistent with the governance, and fiscal and administrative policies of CI and applicable terms of the GFCR Funding Agreement, CI shall have the exclusive right to manage the business affairs of CIV including the management of GFCR-funded activities implemented by CIV in connection with this program which may include but may not be limited to:

- (a) formulation of investment objectives, strategies, and policies;
- (b) identification, evaluation, selection, and making of portfolio investments consistent with the charitable mission and mandate of CIV;
- (c) management and disposal of portfolio investments, including negotiation and execution of all agreements in relation to the making, management and disposal of portfolio investments;
- (d) engagement of employees, independent contractors, lawyers, accountants, custodians, technical experts, and other professional services consultants as CIV may deem necessary or advisable in relation to the affairs of CIV; and
- (e) to elect or appoint, delegate authority to, remove and terminate members of the CIV investment committee and any CIV advisory committee(s)

- 2.2. Portfolio investment decisions, including those related to this GFCR program, shall be subject to CIV Investment Criteria, the CIV Investment Committee decision and approval process, as well as satisfactory completion of standard legal, commercial, and financial due diligence, conflicts and Know Your Customer (KYC) screening, and other requirements as specified under CI and CIV investment policies.

D. Investment Strategy & Approach

1. **Impact-First Approach:** CIV employs an “impact-first” approach to investing that seeks to maximize the positive environmental and social outcomes generated by our portfolio investments. While CIV seeks to generate positive returns across our portfolio investment activities, we prioritize investment opportunities that have strong potential to deliver outsized risk-adjusted impact returns. To better align economic and environmental and social (“E&S”) impact outcomes, CIV employs a range of concessional financing approaches including E&S performance-linked interest rate discounts and other investment pricing tools, extended grace periods, and waiver of collateral requirements where appropriate. Application of incentives and



concessions are evaluated on a case-by-case basis, with the objective of applying strategies most likely to optimize positive E&S impacts of portfolio investments.

2. **Evidence-Based Decision Making:** CIV applies evidence-based decision making¹ in combination with the precautionary principle² to assess and mitigate risks associated with portfolio investments.

3. GFCR Alignment

- 2.1. Sectoral Alignment: With respect to investments made in connection with this GFCR program, CIV will prioritize 'reef-positive' investment opportunities within 'Impact Sectors' and associated value chains as defined by the GFCR (see [Annex G, Section E.1.1.](#) below)
 - 2.2. Priority Site Alignment: With respect to investments made in connection with this GFCR program, CIV will make reasonable efforts to prioritize investment opportunities within Priority Sites identified by Konservasi Indonesia (KI) within the TeKSI program and/or by Co-Convening Agents, The Nature Conservancy (TNC) and its local implementation partner, Yayasan Konservasi Alam Nusantara (YKAN). CIV may, from time to time, invest in enterprises registered, headquartered, or operating outside Priority Sites, provided, however, that such portfolio investments demonstrate alignment with the GFCR program and Investment Criteria and are reasonably expected to contribute to program and/or GFCR Fund Outcomes within Indonesia during the program term.
 - 2.3. GFCR Investment Principles: For and in consideration of portfolio investments made using GFCR funds, CIV will incorporate relevant aspects of the GFCR Investment Principles (updated as of April 2024).
4. **Pipeline Sourcing & Origination:** CIV will leverage a range of approaches to identification, sourcing, and origination of prospective GFCR program investment pipeline opportunities including but not limited to active engagement with KI and YKAN and TNC programs including the Coral Reef Financing Facility (CRFF), the GFCR Equity Fund, and CIV's network of local, regional, and global enterprise incubators, accelerators, venture builders, and blue economy-focused and other impact investors.

5. Target Market Segments

- 1.1. Eligible Sectors: In connection with this GFCR program, CIV will target investments in 'reef-positive solutions' in eligible 'Impact Sectors' as defined by the GFCR (see Appendix G, Section E.1.1. below)

¹ Evidence-Based Decision Making: "A process for making decisions about a program, practice, or policy that is grounded in the best available research evidence and informed by experiential evidence from the field and relevant contextual evidence." (CDC 2024)

² Precautionary Principle - Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation ([Rio Declaration 1992](#)).



- 1.2. **Enterprise Size:** In connection with this GFCR program, CIV will focus on small and medium-sized enterprises as defined by the Indonesia Badan Pusat Statistik (BPS) below. From time to time, CIV may, in its sole discretion, consider the provision of financing to larger enterprises, where such investment is reasonably expected to significantly advance GFCR program and Fund Outcomes. CIV does not currently invest in micro-enterprises.

Category	Number of Employees	Net Assets	Annual Revenue
Small Enterprises	5 to 19	IDR 50 million to IDR 500 million	IDR 300 million to IDR 2.5 billion
		USD 3,100 to USD 31,000	USD 18,650 to USD 155,400
Medium Enterprises	20 to 99	IDR 500 million to IDR 10 billion	IDR 2.5 billion to IDR 50 billion
		USD 31,000 to USD 621,750	USD 155,400 to USD 3.1 million

2. **Investment Instruments:** CIV invests primarily in privately-held companies and utilizes a range of financing instruments, in each case based on the capital requirements, needs, and financial profile of portfolio companies, including:

- 1.1. **Debt:** Inclusive of term loans, credit facilities, and other debt instruments
- 1.2. **Equity:** Inclusive of acquisition of common or preferred shares and securities convertible into or exercisable or exchangeable for equity shares.

CIV reserves the right to use other investment instruments at its sole discretion where such instruments advance the conservation and financial outcomes of CIV and the GFCR program. Portfolio investments will be either denominated in U.S. Dollars (USD), Indonesian Rupiah (IDR) or another tradeable currency that is the legal tender of the state where the portfolio company is established.

2. **Investment Process:** In connection with this GFCR program, investments will be executed in accordance with CIV's standard investment process and procedures as illustrated below:

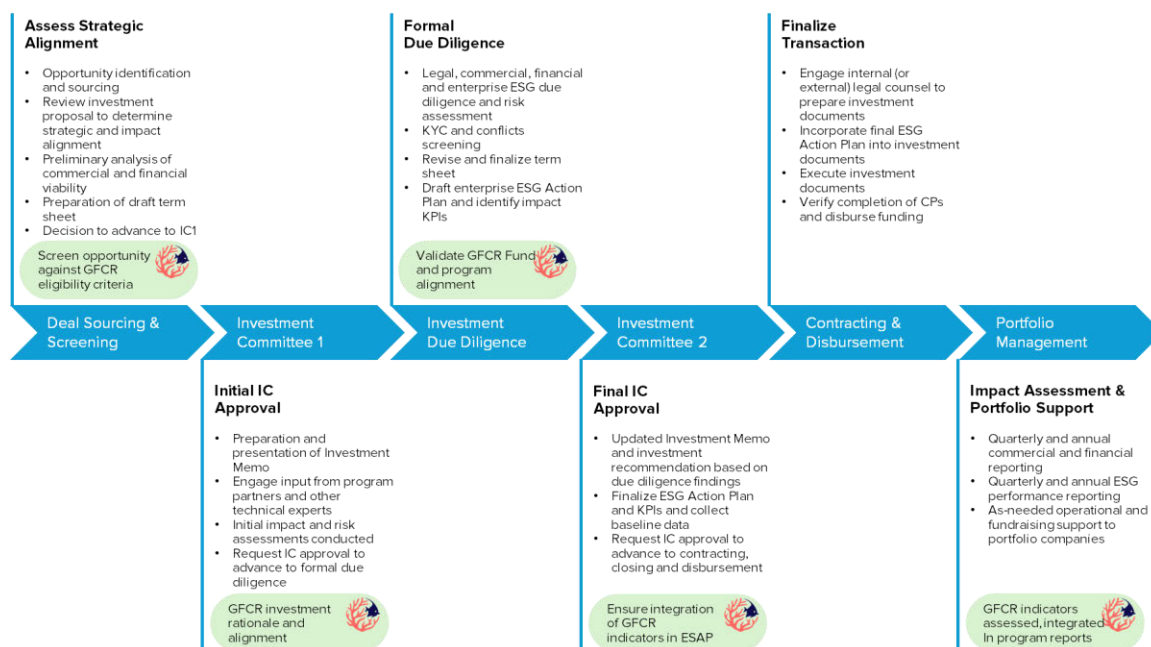


Figure 5. Investment Process

E. Investment Criteria

1. Eligible Sectors and Industries

1.1. **Impact Sectors:** For and in consideration of portfolio investments made using GFCR funds, CIV will target investments in 'reef-positive solutions' across the following 'Impact Sectors' as defined by the GFCR:

- Sustainable Ocean Production: Marine capture fisheries, aquaculture, and mariculture
- Sustainable Coastal Development: Ecotourism, mooring systems, natural coastal infrastructure including reef restoration
- Circular Economy and Pollution Management: Solid waste management, recycling, wastewater treatment

1.2. **Restrictions and Exclusions:**³ The following list of restricted and excluded investments is non-exhaustive and may be updated, revised or amended by CIV from time to time. CIV will not invest in, guarantee, or otherwise provide financial support, either directly or indirectly to enterprises or other entities that engage in, finance, or substantially focus on:

- General:
 - Production or trade of any product or activity deemed illegal under host country laws or regulations or international conventions and agreements

³ Not exhaustive. May be amended from time to time.



- Production of or trade in: (i) tobacco or distilled alcoholic beverages and related products; (ii) weapons and ammunition of any kind; (iii) the operation of internet gambling, casinos or equivalent enterprises; (iv) pornography; or (v) the research, development, or technical applications that support any of the foregoing
- Fossil fuel-based energy production and related activities
- Energy-intensive and/or high greenhouse gas (GHG) emitting industries including, but not limited to the manufacture of: (i) petroleum-based plastics in primary forms; (ii) conventionally-fueled vessels, vehicles, or machinery
- Production or activities involving harmful or exploitative forms of forced labor or involve the formal or informal employment of child labor⁴
- Production, trade or trafficking of endangered, threatened, or protected (ETP), vulnerable, or CITES listed species
- Activities that involve involuntary resettlement and/or the taking of shelter and other assets belonging to local communities or individuals
- Production or trade activities that pose risks of alteration, damage, or removal of any tangible assets of archaeological, cultural, or historical importance
- Production or trade activities that pose adverse risks to traditional or customary land use rights or prevent, restrict, limit or impede gathering, access, use, or other rights of communities or individuals permitted under applicable law

(b) Marine Capture Fisheries:

- Employing fishing methods or practices that involve the use of poisons or explosives or that knowingly source or trade seafood harvested using poisons or explosives, whether or not such practices may be permitted under applicable law
- Procurement or purchase of demersal or bottom trawls, dredges, drift gillnets, set or fixed gillnets, or trammel nets
- Production or trade activities with enterprises or vessels having been implicated in the conviction of Illegal, Unreported, and Unregulated (IUU) fishing, transnational organised crime, trafficking of people or unauthorised goods, or piracy
- Employ the practice of shark-finning or the trade of products derived from shark-finning, whether or not such practices may be permitted under applicable law

(c) Aquaculture Mariculture:

- New or expanded aquaculture or mariculture farming areas or other land use conversion activities involving the destruction or degradation of native ecosystems, peatlands, mangroves, seagrasses, coral reefs, or other natural ecosystems or habitat
- Production activities involving the use of antibiotics or medicated feeds whether or not such practices are permitted under applicable law

⁴ Child Labor - Work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development, including work that: is mentally, physically, socially or morally dangerous and harmful to children; and/or interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work (ILO)



- Production activities involving the treatment of water with pesticides banned or restricted by the Rotterdam Convention on Prior Informed Consent (PIC; UNEP 2004), the Stockholm Convention on Persistent Organic Pollutants (POPs; UNEP 2019) or classed as “extremely hazardous” or “highly hazardous” (classes Ia and Ib) by the World Health Organization (WHO), whether or not such practices are permitted under applicable law
- Design, engineering, or construction of new dams, the rehabilitation of existing dams, or any other water resource management infrastructure that are highly dependent on the performance of dams or that potentially affect their performance

(d) Ecotourism

- Large cruise line operations

(e) Coastal Infrastructure

- Design, construction, or operation of hazardous waste management, processing, or storage infrastructure or facilities

2. Minimum Eligibility Criteria

- 2.1. Business Formality: Enterprises must be legally incorporated and possess appropriate business registration, licensing, and permits within relevant operating jurisdiction(s)
- 2.2. Operating History: It is preferable for enterprises to demonstrate a minimum of two years of operating history in priority geographies, markets, and/or sectors. However, flexibility can be provided on a case-by-case basis.
- 2.3. Financial Performance: Enterprises are required to be post-revenue, meaning they should provide evidence of revenue generation from the sales of their products or services. They should also demonstrate evidence of prior third-party fundraising, such as secured funding or financing from external sources, if applicable. However, considerations may still be made for companies that show strong strategic alignment and prospects.

3. Investment Prioritization Criteria

- 3.1. Founders; Management Team: Strong initial founder teams with relevant sectoral and target market experience and financial management capacity. Priority will be given to companies whose founders and management team are Indonesian nationals.
- 3.2. Priority Sites & Sectors: Experience operating within GFCR Priority Site(s) and sectors, industries and value chains (see [Annex G, Section E.1.1.](#))
- 3.3. Business Model: Compelling, clearly articulated impact-aligned business model and early demonstration of product-market alignment and traction within key customer segments. Clear, rational impact, operational, and commercial growth milestones



Annex H – Selected Enterprises for Investment

SEADLING

SEADLING is an industry-leading seaweed biotech company dedicated to unlocking the full potential of seaweed through innovation and technology. Established in 2018 on the tropical island of Borneo, SEADLING specializes in producing high-quality seaweed-based ingredients for animal feed, plant bio stimulants and human nutraceuticals. With transparent supply chain and strong commitment to sustainability, SEADLING has been focusing on studying seaweed's potential for carbon sequestration, promoting sustainable seaweed farming as an alternative livelihood option for the coastal communities in Borneo and empowering women in the seaweed industry by providing relevant knowledge and skills. With the US\$ 500,000 SAFE-type investment disbursed on December 2022, CIV envisions the replication of impact from SEADLING to the local communities in East Sumba with projected US\$ 2.5-3 million annual revenue, while also protecting the coral reef habitat through the implementation of reef-positive seaweed practices.

Through work with SEADLING, we hope to address fundamental science, data and information gaps related to coral reef-macroalgae farming interactions and improve understanding of direct/indirect physical and bioecological risks to reefs of seaweed mariculture with the goal of promoting: i) cultivation practices that avoid reef damage; ii) siting that avoids adverse impacts to coral reefs; and iii) disease and climate resilience of wild and cultivated seaweed strains.

JALA

JALA is a technology-driven aquaculture company focused on revolutionizing shrimp farming practices. They specialize in providing innovative solutions and technology to optimize aquaculture production, improve efficiency, and promote sustainability in the seafood industry. Their technology enables shrimp farmers to monitor water quality, automate feeding processes, and track shrimp health and growth metrics. By harnessing the power of technology, JALA aims to empower shrimp farmers to make data-driven decisions and minimize coral reef impact through efficient water usage for feeding, monitoring and management of the water quality. JALA's expanded product and service ecosystem has enabled the company to expand its customer and user base and its associated environmental and social impact, growing from 330 farmers in late 2018 to more than 12,412 farmers across all major shrimp farming regions in Indonesia in only 4 years. In one of the GFCR priority sites, East Sumba, the National Government of Indonesia has plans to develop a shrimp 'mega farm' and processing facility over 2000 Ha of land. This scale of new production poses a direct threat to nearby coral reefs of East Sumba. JALA is already providing support to the government on this 'mega farm' and is actively negotiating to use the Jala technical suite to support farm management.

YKAN (Yayasan Konservasi Alam Nusantara, TNC's main implementing partner in Indonesia and our co-GFCR Grantee), is focused on improving shrimp aquaculture in Indonesia. We plan to work in partnership in this sector, and utilize the various financing and technical assistance facilities that each organization has access to or expertise in. This includes supporting the national mapping of aquaculture growth projections to identify key areas of overlap between wastewater runoff and coral reef ecosystems and replicating sustainable financing models for MPAs. We are exploring using profits from sustainable shrimp production (and the potential blue carbon credits from mangrove restoration) to go towards MPA management, such as monitoring and coral reef restoration. JALA is targeting to serve more than 37,000 farmers by 2027, grow JALA farms to 429 Hectares, and restore 115 Hectares of mangrove. With the US\$ 500,000 of investment on term and working capital loans expected to be disbursed in Q2 2024, CIV is



prospecting US\$ 1-4 million of net margin per year from JALA operations in East Sumba with estimated US\$ 20-50 million investment capital that can be leveraged within the next 5 years.

WITTAYA AQUA

Wittaya Aqua provides a digital platform to interpret data across the feed-to-farm supply chain and enable provides innovative data analytics platforms that enable tailored to enhance fish farming operations. Their comprehensive solutions empower fish and shrimp farmers to manage aquaculture facilities effectively, boost productivity, and ensure sustainability through real-time monitoring and leveraging data analytics and predictive modeling. Wittaya Aqua is dedicated to driving positive change in the aquaculture industry by delivering advanced technology solutions that support sustainable and lucrative aquaculture practices.

Wittaya's software has been rolled out across 22 customers over a year, with an ARR of \$250,000. We are using GFCR funding for this investment for a few key reasons. Wittaya is already operating in Indonesia, with sales to PT Kelman, a grouper farm in Bali PT Matahari Sakti, and a large feed mill in Surabaya. The management team is prioritizing their expansion, as the aquaculture industry in Indonesia is large, extremely fragmented, and growing rapidly with government backing.

Aquaculture produces twice as much fish as wild-capture fisheries in Indonesia, and the sector grew about 16% per year from 2000-2019. The Indonesian government has set more ambitious growth targets through 2030 to combat malnutrition and stunting, aiming to triple aquaculture output. With the US \$350,000 equity purchase of the company, CIV is looking into US\$ 2-4 million of generated revenue per year which is also expected to contribute to the local economic growth.

SEJIVA

Sejiva is a platform dedicated to promoting sustainable living and environmental conservation in Indonesia through regenerative travel programme. Regenerative travel is a sustainable tourism approach that aims to restore and enhance visited destinations, involving actively contributing to the well-being of local communities, natural resources, and cultural heritage by supporting local businesses and artisans. In 2024 the company is targeting \pm 300 bookings with estimated revenue US\$1 – 1.5M. Sejiva aims to establish, maintain, and grow regenerative centers in each destination, particularly in Sumba, which will be focusing on reef restoration. Sumba Island is part of The Savu Sea seascape which is a vital marine ecosystem serves as a habitat and migratory corridor for whales, dolphins, and turtles. The seascape has at least 532 coral species identified, including 11 endemic species. However, there are existing threats from destructive fishing practices that need to be addressed. The regenerative center established by Sejiva could provide a model solution in partnership with local partners (Tiera Sumba) and Sambung Asa. By promoting coral restoration effort, sustainable fisheries and aquaculture, and responsible marine tourism, can create economic opportunities for the local communities. The proposed location is Puru Kambara in East Sumba. The center aims to provide training and capacity building programs for communities, establish sustainable fishing and cultivation practices, and restore 60,000 corals in five years.

SAMBUNG ASA

Sambung Asa is a company which focuses on the upstream of seaweed industry in Indonesia. Sambung Asa collaborates with coastal communities, supporting them with better seeds and equipment to enhance farmers productivity, increasing their knowledge in seaweed cultivation, while also preserving the marine environment and actively involve in combatting climate change by establishing sustainable seaweed farming. Furthermore, by promoting sustainable and responsible seaweed cultivation practices, coastal communities can significantly increase their income without resorting to activities that harm marine



ecosystems and damage the coral reefs, such as trawling, bomb fishing, or potassium fishing. Also, they actively conduct research and development on cultivating species that are currently wild caught, namely *Ulva* (Sea Lettuce), *Caulerpa* (Sea Grapes) and *Palmaria* Sp. The demand for these species is increasing, and the purpose of this activity is not only to reduce over exploitation of natural grown seaweed to prevent extinction but also to increase the income of surrounding coastal communities. Furthermore, they are currently piloting *Gracillaria* sp. as a bioremediator for coastal shrimp and fishponds provides a wastewater management solution for aquaculture. Sambung Asa implements a profit-sharing model with partner farmers, which has proven to establish a more sustainable and mutually beneficial business ecosystem. Data from East Sumba Regency indicates that approximately 1 in 3 residents of East Sumba live below the poverty line. Sambung Asa is looking to collaborate with Sejiva and local partners in Sumba (Tiera Sumba) to generate sustainable job opportunities for communities, increase community income, reduce illegal fishing activities, and eradicate destructive fish bombing practices on coral reefs. With CI Ventures' investment, Sambung Asa is aiming to expand their business to assist 300 Farmers with almost 1000 tonnes of production with 800,000 USD in revenue, located in two islands, Sumba and Liran.



Annex I – Debt for Nature Swap

CI/KI and TN/YKAN⁵ are supporting a debt-for-nature swap negotiation between the governments of the United States and Indonesia. It will be the first coral reef focused debt-for-nature swap supported by the United States government. The swap will mobilize long-term financial resources to support conservation of coral reefs and associated ecosystems (e.g., mangroves, seagrass beds) across the Bird's Head Seascape and the Lesser Sunda Banda Seascape.

The BHS sits at the heart of the coral triangle and is one of the world's most biodiverse coral reef systems in terms of both hard coral and reef fish diversity. Within the Seascape is a network of 26 Marine Protected Areas (MPAs) covering an area of 5.2 million hectares of critical marine ecosystems – designated and managed with the intent to protect areas critical to maintain biodiversity, build climate resilience, and increase food security for indigenous Papuan communities.

The Lesser Sunda Banda Seascape lies within the Coral Triangle and encompasses approximately 5,000 small islands across seven provinces from Bali to Maluku. In addition to high diversity of coral (over 500 hard coral species recorded) and reef fish species (over 2,000 recorded). The Lesser Sunda Banda Seascape contains 1,020,331 hectares of coral reefs, 191,837 hectares of mangroves and 75,657 hectares of seagrasses.

The larger CI-led TeKSI programme for Indonesia will build from the coral reef conservation work already established in the Seascape to expand coral-positive investment opportunities that reduce threats to the Bird's Head Seascape's globally significant reefs. But first, the foundational protection provided by the MPA network must be secured. The Blue Abadi Fund provides stable, recurring funds that leverage government budget allocations and tourism user fees to provide the funding base for the management of MPA network and associated coral reef conservation and livelihood initiatives.

The day-to-day program and operations of the debt swap fund will be carried out by a qualified Indonesian administrator, unanimously selected by all parties to the debt swap. The Administrator will be selected according to certain key criteria, among others.

- *Subject matter expertise.* Does the entity have suitable technical and programmatic expertise for the assignment?
- *Operations and capacity.* Does the entity have the necessary logistical and operational infrastructure to undertake the assignment, including the necessary legal clearance to carry out program activities?
- *Past performance.* Does the bidder's past performance demonstrate recent proven experience doing similar work with appropriate attention to project sensitivities (e.g. government relations, community engagement)?

Based on a selection process led by GOI, the administrator of this debt for nature swap will likely be the Indonesian Biodiversity Foundation, or Yayasan Keanekaragaman Hayati Indonesia (KEHATI), an Indonesian organization that manages various funds for conservation. KEHATI has served as administrator for previous USG-GOI debt-for-nature swaps. KEHATI also serves as the Blue Abadi Fund administrator

⁵ KORALESTARI programme aims to address the decline of coral reef health in Indonesia due to human activities, climate change impacts and invasive species. Savu Sea is one of priority areas of this programme.
Blue Abadi Fund. TNC/YKAN also sits in the governance committee of Blue Abadi Fund



and is responsible for the day-to-day operations of the fund and grantee management. KEHATI is the implementing link between the fund, the Blue Abadi Governance Committee and the grantees' work in the field. While they receive direction from the Blue Abadi Fund Governance Committee, they are responsible for translating the funds to impacts on the ground through grantees. As co-founder of Blue Abadi, CI has a permanent seat on the Governance Committee, provides direct technical and advisory support to KEHATI, and is well-positioned to coordinate these proposed activities.

Currently, the details of the swap are being finalized between the USG, GOI, CI/KI and TNC/YKAN, with the potential deal likely ranging from US\$33 million - US\$35 million.. The debt swap agreement signing is currently scheduled for the week of June 24, 2024, and swap closing scheduled for December 1, 2024. The NGO financial contributions are due at the time of swap closing. The swap will generate a new long-term grant-making program that will service the BHS and LSS for a 15–20-year period, or until all funds are expired.

The deal process described in this section is based on three previous USG-GOI debt-for-nature swaps executed under the U.S. Tropical Forest and Coral Reef Conservation Act. Collectively, the NGOs will need to contribute approximately 20% of the amount towards the swap amount (US \$3m each for CI and TNC). The proposed grant of \$400k from GFCR would contribute directly to the \$3m swap fee that CI will pay to USG. Structural and legal agreements are actively being finalized between the USG, GOI, and NGOs. The parties are finalizing negotiations on the purpose and amount of funds to be used and the necessary governance structure(s).

The TFCCA Oversight Committee will work with the debt swap administrator to design and implement a program strategy for the priority geographies, based on an analysis of the key threats to coral reef ecosystem conservation and their drivers, and an assessment of opportunities. The Program Strategy will have a Monitoring, Evaluation and Learning Plan that includes indicators for the key outputs and outcomes, which the Administrator shall use to track the continued validity of the Program Strategy and to make adjustments as the operational context changes.

Based on the draft of conservation agreement, the grant will be allocated to:

- establishment, restoration, protection, and maintenance of parks, protected areas, and reserves.
- development and implementation of scientifically sound systems of natural resource management, including reef and ecosystem management practices;
- training programs to increase the scientific, technical, and managerial capacities of individuals and organizations involved in conservation efforts;
- the restoration, protection, or sustainable Use of diverse animal and plant species.
- research and identification of medicinal uses of flora of coral reef ecosystems to treat human diseases, illnesses, and health-related concerns; and
- development and support of the livelihoods of individuals dependent on coral reef ecosystems and related resources in a manner consistent with conserving such resources.

The activities outlined demonstrate that the debt swap will enhance MPA management by providing more resources for BLUD staff training on MPA monitoring and science-based management systems. Additionally, a number of grants from the debt swap fund will be targeted towards supporting and developing reef-positive livelihood activities for local communities.