

PROJECT PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project Category	Small-Sized Project
Country	INDONESIA
Title of Project	Ecosystem-based Adaptation to Support Climate
	Resilience in Coastal and Small Islands of Rote
	Ndao and Sabu Raijua Districts in the Savu Sea.
Type of Implementing Entity	National Implementing Entity
Implementing Entity	Kemitraan (Partnership for Governance Reform)
Executing Entity/ies	YAPEKA Consortium (YAPEKA, Penabulu Foundation and CTSS-
	IPB)
Amount of Financing Requested	USD 999,714.29.

I.A. PROJECT BACKGROUND AND CONTEXT

- 1. Global warming resulting from the atmospheric builds up of greenhouse gases has an important effect on coastal and marine waters. Over the next century, the Asia-Pacific region is likely to experience: Warming and increases in precipitation, with projected increases in sea surface temperature (SST) ranging from 1.0 to 3.4 1C in South-east Asia, and increased and more variable precipitation throughout the equatorial Pacific; an increase in winds over Indonesia; tropical cyclones of greater intensity; and mean rise in sea-level of 0.4 to 0.6 m although even greater increases may occur according to some models and Increases in ocean acidification of up to 0.3 pH units¹
- 2. Based on observational data, the average SST rise rate in the Indonesian waters is ranging from 0.02°C to 0.023°C per year over the last century. If the current trends continue, the SST rise until 2030 will reach 0.6°C to 0.7°C, and will reach 1°C to 1.2°C in 2050, compared to the one in 2000. SST rise will affect the potential fishing ground and the damage of coral reefs and associated ecosystems. Warming of the surface ocean from climate change is likely fueling more powerful tropical cyclones (TCs). In addition, scientists predict that with the increasing intensity of global warming, the intensity of extreme climate variability events such as El Niño and La Niña (usually known as ENSO, or the El Niño-Southern Oscillation, comprising both El Niño and La Niña) will increase as well. Analysis of extreme events, namely ENSO, up to year 2100 that incorporates sea surface temperatures in the Nino region, shows an increase of frequency of ENSO from once every three to seven years, to once every two years. ENSO can also assist in causing tidal waves and tropical storms (ICCSR, 2010)².

¹ Adel Heenan, Robert Pomeroy, Johann Bell, Philip L. Munday, William Cheung, Cheryl Logan, Russell Brainard, Affendi Yang Amri, Porfirio Aliño, Nygiel Armada, Laura David, Rebecca Rivera-Guieb, Stuart Green, Jamaluddin Jompa, Teresa Leonardo, Samuel Mamauag, Britt Parker, Janna Shackeroff, Zulfigar Yasin. 2015. A climate-informed, ecosystem approach to fisheries management. Marine Policy 57 (2015) 182–192.

² Indonesia Climate Change Sectoral Roadmap, 2010.

Impact of changes to coastal and marine ecosystems of Rote and Sabu islands in Savu Sea

3. Using NOAA SSTA (Sea Surface Temperature Anomaly) data from 2015-2021 our heatmap analysis indicates Rote and Sabu islands within the Savu Seascape in the south-eastern part of Indonesia suffer high sea surface temperature anomalies. Figure 02 indicates that from 2015 this area has sea surface anomalies ranging from 2°C up to 3°C maximum.



Figure 01 (left) Location in Rote and Sabu Island in Savu Seascape. Figure 02 (right). Distribution of temperature anomalies at Savu Sea, around Rote and Sabu, NTT (NOAA SSTA data 2015-2021, further analyzed and processed by YAPEKA).



Figure 03 (left) Cumulative distribution and intensity of Coral Bleaching Alert (NOAA Bleaching Alert data 2015-2021, further analysed by YAPEKA); and Figure 04 (right) Coral Bleaching Alert 2106 during strong El Nino event (Data: NOAA, processed by YAPEKA)

4. As a consequence, the Savu Sea area is prone to coral bleaching. Figure 03 indicates that the pattern of coral bleaching alerts (constituting Alert 1 and Alert 2 - the highest bleaching threat probability) are closely related to temperature anomalies literally surrounding the Rote and Sabu islands. During a strong ENSO event in 2016 (Figure 04), almost all of the seascape was literally inundated by Alert 2 status where the probability of coral bleaching is very likely. Although the Sabu and Rote islands seem to be out of the hottest zone, the overall seascape fecundity of coral reefs and reef fishes is heavily compromised

because of mass coral bleaching. Therefore pockets of "surviving reefs" that suffer less stress in the Sabu and Rote islands are becoming even more valuable as sources of coral larvae and fish spawning sources.

- 5. An increase in sea surface temperature will also cause the growth and development of mangroves to be disturbed. A decrease in rainfall by more than 15%; and an increase in SST above 0.1°C increases the risk of damage to mangrove ecosystem areas; while in NTT Province (including the Savu Sea) the decrease of rainfall is 8.7% and SST is 0.49°C. Higher sea surface temperature not only affects coral reefs and mangroves but will also cause cascading effects to the connected ecosystem through a chain of hydrometeorology and marine chemistry, and increase vulnerability of Seagrass ecosystems.
- 6. In April 2021, Tropical Storm (TC) Seroja formed over the Savu Sea and hit the Rote and Sabu Islands. The storm is estimated to have caused over \$490.7 million in damages³. The storm surge is destructive to coastal ecosystems and affects socio-economic conditions of coastal communities. The TC Seroja has generated extreme rainfall and high sea waves that impacted coastal erosion and ecosystem change, coastal flooding and also infrastructure damage (Kurniawan, 2021)⁴. A survey finding conducted by BKKPN Kupang in 2021 reveals that some coral reefs have been affected by the TC Seroja. New mounds of land were found caused by strong waves along the coast of Rote island. The TC Seroja has also impacted the livelihood of coastal communities in Rote and Sabu Islands. Most of the seaweed farms and small scale fishermen, more than 147 fishing boats and 16 fishing gears were destroyed because of the TC Seroja⁵.
- 7. Coastal and marine ecosystem damage cause consequences of ecosystem service losses and trigger negative cascading impacts on the socio-economic condition of coastal communities including livelihood system disruption which may also impair progress of stunting reduction⁶ in the two Rote and Sabu islands. The two districts face high prevalence of stunting (above 30%) and the local governments are also currently trying to reduce the high stunting prevalence status⁷
- 8. In addition to climate impact as described above, anthropogenic factors such as sand quarry, destructive fishing and coastal resource use, as well as overlapping land use on coastal areas have triggered more risks for coastal ecosystems and communities. Limited literacy and access to climate information of coastal communities are also other factors that increase the impact. Therefore, any damage and other anthropogenic stresses are in dire need to be compensated and there is an urgency to implement strategies that can improve socio-ecological resilience of coastal areas of Rote and Sabu Islands in Savu sea.

Project Target Locations

9. The project will focus its work on coastal and small islands of Rote Ndao and Sabu Raijua districts in the Savu Sea. Rote islands (total area of 1.280,10 km²; under the administration of Rote Ndao district) and Sabu-Raijua islands (area: 459.6km2; under the administration of Sabu Raijua district) are located in the

³ "Kerugian Sementara akibat Badai Siklon Tropis Seroja di NTT Rp 3,4 Triliun". *kompas.id*. 5 May 2021. Archived from the original on 5 May 2021.

⁴ R Kurniawan^{*}, H Harsa, M H Nurrahmat, A Sasmito, N Florida, E E S Makmur, Y S Swarinoto, M N Habibie, T F Hutapea, Hendri, R S Sudewi, W Fitria, A S Praja, F Adrianita. 2021. The impact of TC Seroja to rainfall and sea wave height in East Nusa Tenggara. IOP Conf. Series: Earth and Environmental Science **925** (2021) 012049

⁵ Data from the district government of Rote Ndao <u>berikut-data-sementara-hasil-rekapan-akibat-badai-seroja.php</u>.

⁶ Charles W Schmidt. 2019. The Future of Stunting: Potential Scenario of Climate Change. EHP5049

⁷ prevalensi-stunting-di-atas-30-persen-15-kabupaten-di-ntt-berkategori-merah.

the seascape of Savu Sea in the southern region of Indonesia. Currently the Savu Sea is managed as the largest national marine protected area in Indonesia (more than 3.5 million Ha). Savu Sea is part of the global epicenter of tropical marine biodiversity, within the Coral Triangle in Indonesia. Rote and Sabu islands are identified as islands with high vulnerability index (SIDIK, 2015)⁸ in Savu Seascape. Furthermore, Bappenas in 2021 also identified the two islands as t<u>op priority</u> for climate resilience actions⁹.

- 10. Livelihood of coastal and small island communities in Rote and Sabu islands in Savu Seascape depends on both coastal and marine ecosystem resources as well as agriculture activities. With a population of 143,764 in Rote (2021) and 43,984 in Sabu (2015), about 28% and 29.48% are poor families respectively. Coastal communities in Rote and Sabu islands depend on small-scale fishery activities including seaweed cultivation and traditional wisdom to utilize coastal resources such as *Hoholok/Papadak* (traditional wisdom in utilizing natural resources), *makan meting* (gleaning on the coral reef flat area collecting small fishes and mollusks during low tide), and *Dea Batu* (traditional method of collecting fishes trapped by stones on the coastal areas); while communities of Sabu islands are more depend on agriculture practices.
- 11. Project interventions will be at Rote Ndao and Sabu Raijua districts and some will be at provincial level (NTT Province), as coastal and small islands as well as marine sectors are within coordination of the provincial government. The project will also select several target coastal villages in the two districts to focus its activities at community level. Control villages will be selected as well. Selection of target and control villages will be based on updated coastal vulnerability and risk data and information, as well as based on coordination with the district government.

Underlying Causes and Barriers to Improve Climate Resilience of Coastal Areas of Rote and Sabu Islands in Savu Sea.

- 12. Climate vulnerability of the coastal areas of Rote and Sabu islands in Savu Sea depends on adaptive capacity and sensitivity of the socio-ecological system¹⁰. YAPEKA and the consortium have worked in NTT since 2015, particularly at Rote Ndao and Sabu Raijua since 2020, where interventions have been focused on climate change-related topics. In these areas, YAPEKA has been focused on small island scenarios, where coastal and terrestrial landscape-seascapes are inseparable. Below are factors influencing adaptive capacity and sensitivity of socio-economic systems in Rote and Sabu islands that have been identified that will be addressed in this project proposal:
- 13. Limited capacity of local governments and coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations. Although some data and information on climate risks and vulnerability are available, these data are not detailed and specific to the islands. The government of Indonesia has a baseline data in 2018 on Coastal Vulnerability Index (CVI) at the national scale along the coastline of islands in the Coral Triangle. However, the CVI data did not have significant changes in the projection period during 2020-2034 and 2030-2045 due to limited and more

⁸ Ditjen PPI KLHK, 2015. Sistem Informasi Data Indeks Kerentanan.

⁹ Bappenas, 2021. Daftar Lokasi & Aksi Ketahanan Iklim.

¹⁰ Whitney, C. K., N. J. Bennett, N. C. Ban, E. H. Allison, D. Armitage, J. L. Blythe, J. M. Burt, W. Cheung, E. M. Finkbeiner, M. Kaplan-Hallam, I. Perry, N. J. Turner, and L. Yumagulova. 2017. Adaptive capacity: from assessment to action in coastal social-ecological systems. *Ecology and Society* 22(2):22.

detailed data as well as limited modelling analysis methods¹¹. The TC Seroja which hit Rote and Sabu Islands have indicated physical damage to coastal reefs and other associated ecosystems, which potentially change the coastal vulnerability condition and therefore there is a need to generate up-todate coastal vulnerability data particularly in association with tropical cyclones which may occur more often in Savu seascape. Poor knowledge management on climate vulnerability and risks as well as adaptation measures also becomes a challenge for the local government and coastal communities in improving climate adaptive capacity of the socio-ecological systems.

- 14. Degrading conditions of coastal ecosystems after the TC Seroja. The TC Seroja has significant physical impact on the coral reefs in the coastal areas of Rote and Sabu islands¹². New uplifted, exposed reefs caused by TC strong waves that lifted coral reef flats along the coast of Rote and Sabu islands. The damage of coral reefs and associated ecosystems can reduce adaptive capacity and increase sensitivity of future climate change. Therefore, coastal ecosystem rehabilitation is urgently required to improve climate resilience of the ecosystems. Ecosystem-based Adaptation (EbA) is one of the options that can improve adaptive capacity and can also help to reduce future climate hazards.
- 15. Limited knowledge and practices of sustainable livelihood options. Most coastal communities depend on small-scale fishery for their livelihood with limited knowledge to sustainably manage and develop their businesses as well as develop other sustainable livelihood options, which can decrease their social system's long-term resilience. The project will support the development of livelihoods and community enterprises to improve sustainable livelihood opportunities and reduce the degradation pressure on coastal ecosystems.
- 16. Limited coastal and marine ecosystem service management practices. Although large parts of the coastal and marine systems of Rote and Sabu Islands are managed as a Marine National Park of Savu Sea, the extensive area of the marine national park (around 3.5 million Ha) and limited resources of the marine park authority have caused limited coastal and marine ecosystem service management efforts. At the local level, the marine and fishery as well as forestry sectors are also currently managed and coordinated under the provincial government, and with very limited management authority at district level. These sectors and governance layers are often disconnected. At village/community level, some local community groups have traditional wisdom to manage their coastal and marine resources. Therefore, the project will also be in a position to improve coordination and information pipeline between layers of governance to improve the climate adaptation decision-making process. These complexities of coastal and marine management systems require an integrated coastal and marine management (ICM) approach to improve adaptive capacity and climate resilience. At provincial level a multi stakeholder forum: Council on Marine Conservation of NTT Province (DKPP NTT) has been formed to strengthen stakeholders involvement and vertical and horizontal integration among (national, regional and local) authorities and sectors are key factors of the ICM process.
- 17. Limited capacity of the local and village governments to reduce risks associated with climate-induced socio-economic and environmental losses. This is reflected in the lack of adaptation action plans and climate adaptation measures implemented by the local and village governments. Climate adaptation is also not sufficiently addressed by the local government's policies and development plans. Another challenge in implementing climate adaptation activities is the lack of local government and village capacity to allocate budgets for climate adaptation measures. The pandemic Covid-19 also has shifted the allocation of the provincial, district and village budgets for the health sector in the last two years.

 $^{^{11}}$ Ditjen PPI KLHK. 2021. Profil Kerentanan Perubahan Iklim Kawasan Segitiga Karang Indonesia.

¹² BKKPN Kupang. 2021. Coral Reef Condition Survey in TNP Laut Sawu.

Based on the findings from consultations with the local government and the Directorate General of PPI, there is a need to find opportunities to close this financial support gap through alternative funding including the Ecological Fiscal Transfer (EFT) mechanism.

Figure 05 below outlines the Climate-Impact Chain in Rote and Sabu Islands in Savu Seascape.



Figure 05. Climate-Impact Chain in Rote and Sabu islands in Savu Seascape.

I.B. PROJECT OBJECTIVES

- 18. This project goal is to improve the resilience of coastal areas and small islands of Savu Sea against extreme weather and climate variability events by strengthening the knowledge management and capacity of local government and communities in implementing an Ecosystem-based Adaptation (EbA) and sustainable livelihood.
- 19. Objectives of this project are:
- 1. Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options. This objective is aligned with the Adaptation Fund (AF) Outcome 1: Reduced exposure to climate-related hazards and threats and AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level.
- 2. Improved adaptive capacity of coastal socio-ecological systems to withstand extreme weather and climate. This objective is aligned with the AF Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress, and AF Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in the target area.
- 3. Strengthened the enabling policies and institutions to improve the management and climate budgeting of coastal ecosystems. This objective is aligned with the AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.

20. Below is the Theory of Change of the Project and alignment of the project objectives with the Adaptation Fund Result Framework at the outcome level as indicated red boxes :



Figure 1. The Theory of Change (TOC)

I.C. PROJECT COMPONENTS AND FINANCING

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Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
 Knowledge Management . 	 Output 1.1. Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands. Output 1.2. Climate Field Schools to share knowledge for implementing EbA 	Outcome 1: Increased generation and use of coastal climate vulnerability in decision-making	USD 62,142.86
	 Output 2.1. Diverse communication materials and channels on EbA practices Output 2.2. Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities. Output 2.3. Digital information platform on EbA tools and practice 	Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures	USD 55,714.29
2. Ecosystem- based Adaptation and Livelihood.	 Output 3.1. Building With Nature ecosystem restoration sites Output 3.2. Locally Managed Marine Area (LMMA) . Output 3.3. Small infrastructures to support ecosystem monitoring and surveillance . 	Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability.	USD 397,000.00
	 Output 4.1.Rapid local market assessments at the village level to identify site-specific livelihoods opportunities Output 4.2. local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services Output 4.3 value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund 	Outcome 4: Communities with improved and diversified livelihoods.	USD 143,214.29

Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
	 Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation Output 4.5.Community sub-grants to support community-based climate resilience and livelihood business initiatives 		
3. Capacity Building and Governance	 Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts. Output 5.2 . Strengthened DKPP NTT Province as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issues. Output 5.3 . Climate resilience funding through Ecological Fiscal Transfer (EFT) scheme. Output 5.4. Rehabilitated/conserved coastal ecosystems that are monitored and registered in the SRN. 	Outcome 5: Local and village government with improved capacity and finance to implement adaptation measures	USD 179,571.43
5. Project Execution cost			USD 87,142.86
6. Total Project/Programme Cost			USD 924,785.71
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			USD 74,928.57
Amount of Financing Requested			USD999,714.29

I.D. PROJECT CALENDAR

Milestones	Expected Dates
Start of Project/Programme Implementation	Jan 2023
Mid-term Review (if planned)	Jan 2024
Project/Programme Closing	Dec 2024
Terminal Evaluation	Mar 2025

PART II: PROJECT / PROGRAMME JUSTIFICATION

II.A. PROJECT COMPONENTS AND DESCRIPTION.

Component 1. Knowledge Management.

- 21. This component will strengthen the knowledge management cycle (knowledge generation processing sharing utilization) on climate risk and vulnerability and implementation of Ecosystem-based Adaptation to support climate resilience of Savu Sea coastal areas and small islands, in NTT Province. The knowledge management activities will include: 1) Action research to assess the coastal socio-ecological and vulnerability assessment in association with tropical cyclones, 2) develop climate field schools, 3) diverse communication materials and channels on EbA, 4) facilitate media visits for journalists and influencers and 5) develop digital platform on EbA tools and practices
- **22.** This component will support the achievement of Project Objective 1: Strengthened ability of coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations.
- 23. Two project outcomes are expected to be achieved under this component:
 - Project Outcome 1: increased generation and use of coastal vulnerability in decision-making to increase climate resilience that is aligned with the Adaptation Fund_Output: Risk and vulnerability assessments conducted and updated.
 - Project Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures that is aligned with the Adaptation Fund Output: Targeted population groups participating in adaptation and risk reduction awareness activities and the Adaptation Fund Output: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning

- 24. To increase generation and use of coastal climate vulnerability information and adaptation options in decision-making, the project will conduct an action research to assess the coastal socio-ecological and vulnerability assessment in association with tropical cyclones. Findings of the research will be used in identifying ecosystem-based adaptation options to be implemented under the Component 2 and will be used to update coastal vulnerability data in Rote and Sabu islands for preparing the district adaptation action plans (RAD-API) under the Component 3). The project will also establish field schools at village/sub-district level to share knowledge on climate vulnerability and Ecosystem-based Adaptation practices for the local communities. The establishment of field schools will be coordinated with the local government agencies and local universities to set up field school curriculum, training modules and materials, and to provide expertise and extension workers for conducting training activities.
- **25.** To increase awareness of the impacts of extreme weather and climate and of ecosystem-based adaptation as an option to increase climate resilience, the project will develop various awareness/communication materials on the impact of extreme weather and climate and EbA practices targeted for coastal communities including young generations. Communication materials will be shared in the form of but not limited to infographics for social media and posters. The project will also facilitate journalists and young influencers participating in project activities and media trips to highlight EbA and sustainable livelihood practices. The project will also develop a digital information platform to share EbA tools and practices especially for the coastal and small island context in Indonesia.
- 26. Project output of these activities:

Output 1.1. Updated information on coastal social-ecological system and vulnerability associated with tropical cyclones in Rote and Sabu islands.

Output 1.2. Climate Field Schools to implement EbA

Output 2.1. Diverse communication materials & channels on climate impacts and EbA practices. Output 2.2 Journalist, influencer and community groups participating in adaptation and riskreduction awareness activities.

Output 2.3. Digital information platform on EbA tools and practices

Component 2. Ecosystem Rehabilitation, Management and Sustainable Livelihood

- 27. This component will support the achievement of Project Objective 2: **Improved adaptive capacity of the coastal socio-ecological system to withstand extreme weather and climate**, by focusing its activities on EbA and sustainable livelihood approaches.
- 28. Two project outcomes are expected to be achieved under this component:
- 29. Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability, that is aligned with the Adaptation Fund Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability.
- 30. **Outcome 4: Communities with improved and diversified livelihoods**, that is aligned with the Adaptation Fund Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability
- To strengthen vulnerable coastal ecosystems in response to climate change impacts, the project will implement Ecosystem-based Adaptation through 1) Building With Nature (BWN) ecosystem restoration,
 Establish Locally Managed Marine Area (LMMA), 3) build ecosystem monitoring tower, and 4) Ecosystem service-based Livelihood activities. Building With Nature (BWN) approach is a comprehensive

engineering approach that seeks to enhance the use of natural ecological process to achieve efficient and sustainable hydraulic infrastructure design ¹³; the project will also facilitate locally managed marine areas (LMMA) to ensure conservation and protection of coastal ecosystems. Both BWN and LMMA will be focused on four coastal ecosystem landscape units in Rote and Sabu islands, which will involve participation of 9 villages of Loaholu and South-West Rote sub districts in Rote island and 5 villages of West Sabu and East Sabu sub districts in Sabu island. BWN ecosystem restoration and LMMA in these villages will be aligned with Indonesia's PROKLIM village program. PROKLIM is a national-wide program managed by the Ministry of Environment and Forestry in order to increase the involvement of the community and other stakeholders to strengthen adaptation capacity to the impacts of climate change and reduce GHG emissions. Establishment of PROKLIM villages will follow the government guideline on PROKLIM Program (Directorate General for Climate Change Regulation/Perdijen PP No.1,2017). In addition the project will build small infrastructure (monitoring towers) as facility to monitor the coastal ecosystem landscapes

- 32. Building with nature ecosystem restoration will include the following steps: 1) initiation phase, 2) planning and design phase, 3) construction phase and 4) post construction phase. Targeted degraded ecosystems to be restored include mangrove, coral reefs and seagrass ecosystems. Mangrove restoration activities will involve mangrove stress identification and removal, natural vegetation, direct planting, and erosion control; Coral reef rehabilitation will involve installing coral gardens and ensuring natural regeneration of corals; and seagrass restoration will involve direct planting, trapping sediment and managing sea tides. Among the features of the BWN hybrid infrastructures are optimization of local materials and traditional knowledge.
- 33. Establishment of LMMA will be facilitated by setting community-based monitoring and surveillance group (POKMASWAS) network or establishing agreement on suitability of activities in using marine zone (Persetujuan Kesesuaian Kegiatan Pemanfaatan Ruang Laut/PKKRL) at village or inter-village/sub-district level. At village level, LMMA activities will be integrated with the village annual/mid term development plan.
- 34. The project will construct small infrastructures for ecosystem monitoring and ecotourism facilities, such as monitoring tower, information centre, and mangrove track in selected sites. A feasibility study will be conducted prior to the construction works. These infrastructures are to support community-based monitoring and surveillance activities as well as for ecotourism facilities. Ecotourism is one of EbA options that can also provide benefits for both socio-ecological systems.
- 35. The project will also support the development of livelihoods and sustainable enterprises in target PROKLIM villages to reduce the degradation pressure on coastal ecosystems and improve sustainable ecosystem-based livelihood opportunities. This holistic approach to sustainable livelihoods focuses on village-level natural resource management planning, strengthening livelihood activities, and increasing enterprise opportunities. Project activities will include: 1) rapid local market assessments at the village level to identify site-specific livelihoods opportunities, 2) Training on sustainable production practices, business management, value chain improvements, and accessing financial services, 3) value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund, 4) livelihood business incubation. Potential livelihood in Rote and Sabu islands to be strengthened or diversified include but not limited to: community-based ecotourism, marine bio-pharmacology products, aquaculture, capture fishery, seaweed farming, salt farming, the Asian Palmyra Palm (Lontar)-based products and traditional

¹³ Wilms, T., Van der Goot, F., Tonneijck, F., Nurhabni, F., Sembiring, L. (2020). Building with Nature Approach. Building with Nature to restore eroding tropical muddy coasts. Ecoshape technical report, Dordrecht, The Netherland

coastal resource use.

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- 36. In addition, the project will provide community sub-grants to support community-based climate resilience and livelihood business initiatives. Selection of community-based climate resilience and livelihood business initiatives will be based on climate priority action plans developed at village level in targeted PROKLIM villages.
- 37. Community sub-grants to support community-based climate resilience and livelihood business initiatives. Selection of community-based climate resilience and livelihood business initiatives will be based on climate priority action plans developed at village level in targeted PROKLIM villages.
- 38. Project outputs under this component will include:
 - Output 3.1. Building With Nature ecosystem restoration implemented.
 - Output 3.2. Locally Managed Marine Area (LMMA) established
 - Output 3.3. Small infrastructure to support ecosystem monitoring and surveillance
 - Output 4.1. Rapid local market assessments at the village level to identify site-specific livelihoods opportunities.
 - Output 4.2. Local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.
 - Output 4.3. Value chain viability assessments to guide the design of the livelihood business subgrant/revolving fund
 - Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation
 - Output 4.5. Provision of community sub-grants to support community-based climate resilience and livelihood business initiatives

Component 3. Strengthening Governance and Institution

- 39. This component will support the achievement of Objective 3: Strengthened local and village government capacity to reduce risks associated with climate-induced socio economic and environmental losses.
- 40. Project Outcome in this component is: **Outcome 5:** Strengthened governance, coordination and finance to support climate resilience of coastal ecosystems, which is aligned with the Adaptation Fund Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events; and Output 2.2: Increased readiness and capacity of national and sub-national entities to directly access and program adaptation finance.
- 41. This component will ensure integration of EbA implementation in Rote and Sabu islands with the districts' Adaptation Action Plans (RAD-API). Currently, both Rote Ndao and Sabu Raijua do not have updated adaptation action plans and climate adaptation issues are not integrated in the district development plans. The project will facilitate multi stakeholder forums at district level and provide technical assistance to prepare the RAD-API documents. The socio-ecological and climate vulnerability assessment results from the Component 1 will also be used in preparing the RAD-API document.
- 42. At provincial level, the project will strengthen the Integrated Coastal Management of Savu Seascape, by revitalizing and strengthening coordination between stakeholders in the DKPP-NTT (Dewan Konservasi Perairan Provinsi Nusa Tenggara Timur, a multi-stakeholder forum on marine conservation of NTT province). It aims to provide a better context to benefit from synergies and to level out inconsistencies

across different policies and sectors. In this perspective stakeholders, involvement and vertical and horizontal integration among authorities and sectors are key factors of the ICM process. The activity will prepare a policy brief on climate resilience and implementation of EbA as adaptation measures in NTT and facilitate a workshop to address the policy brief's recommendations in the context of integrated coastal management of the Savu Sea.

- 43. To strengthen financial support for the climate resilience in Rote and Sabu districts, the project will provide technical assistance and facilitate the development of an ecological Fiscal Transfer (EFT) scheme. Ecological Fiscal Transfer is one of the government climate funding options that can support adaptation measures at district and village levels. An ecological fiscal transfer policy is needed to improve the ecological governance system and financial relations between the central government and local governments, including village governments in managing biodiversity and the environment. The EFT scheme to be developed will be performance-based to areas that perform well in implementing climate adaptation measures and ecosystem management in coastal areas. The EFT scheme will be developed based on the regulation framework on Regional Financial Management especially regarding the financial assistance (Government Regulation No. 12, 2019, articles 45 and 67; Allocation of Village Fund (Government Regulation No. 47, 2015 article 96 on changes of Government Regulation framework.
- 44. The project will also strengthen the management of rehabilitated and conserved/protected coastal ecosystems at village level by strengthening the capacity of community-based monitoring and surveillance through training on monitoring of ecosystems as well as socio-ecological impacts, and provision of monitoring and surveillance equipment. The project will also register the rehabilitated and conserved/protected sites to the national registry system (SRN) on climate change control.
- 45. Project outputs of component 3 will include:
 - Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.
 - Output 5.2. Strengthened ICM approach in Savu seascape that takes into account climate resilience issues.
 - Output 5.3. Climate resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.
- 46. Output 5.4. Rehabilitated/conserved coastal ecosystems that are monitored and registered in the SRN.

II.B. ECONOMIC, SOCIAL AND ENVIRONMENTAL BENEFITS

Impact Potential

- 47. The project will impact *ca*. 17,383 beneficiaries (individuals living in 5 villages of Rote Ndao and 5 villages in Sabu Raijua) as users (mainly coastal communities including women and Small-scale fishers) of the coastal ecosystem's goods and services distributed in the 30.3 km of coastline. This figure will include:
 - Direct beneficiaries from EbA implementation in 5 villages of Rote and 5 villages in Sabu are estimated at 15% of the total population: 2,607 individuals (1,180 male and 1,427 female) and around 60% of the figure are fishers (1,564 individuals).
 - Direct beneficiaries from capacity building activities: 900 individuals (estimate: 630 male and 270 female) and around 60% of the figure are fishers (360individuals).
- 48. Broader beneficiaries can be achieved through the knowledge sharing, awareness activities, and implementation of adaptation action plans.

49. Economic, social and environmental benefits of project activities are described in the following table:

Activity	Climate Change Benefit	Environmental Benefit	Social Benefit	Economic Benefit
EbA (BWN ecosystem restoration, LMMA)	Prevent climate hazards such as storm surge, floods.	Conserve environmental services.	Preserve traditional practices in managing coastal resources, environmental education, health and wellbeing, Improve cohesion among communities and stakeholders.	Sustainable fishery resources, and other environmental services that can be monetized.
Sustainable Livelihood activities (e.g. ecotourism, fishery)	Increase community resilience.	Sustainable use of coastal resources, reduce threats to coastal ecosystems.	Reduce poverty and inequality by generating employment among poor households, and improve food security.	Diverse income generating activities, more secure income for coastal communities.
Capacity building activities (Field school training, Participatory action research, FGDs)	Increase community adaptive capacity to respond to climate change.	Improve knowledge and skills in managing coastal resources.	Improve capacity of communities and cohesion among communities and stakeholders.	Improve knowledge and capacity in livelihood/devel oping businesses
Development of Adaptation Action Plans, ICM & EFT	Robust planning to address climate issues; support funding on climate resilience activities	Improve management of coastal and marine resources	Improve cohesion and coordination among stakeholders;	Provide information on resources to develop livelihood and economy.

50. The above project activities will mostly benefit coastal communities in the target villages and sub districts who are mostly poor and disadvantaged small-scale fishers. Small-scale fishers operate fisheries at the household level, fishing with or without a fishing boat of < 5 GT, and using fishing gear that is operated by manpower alone; and most women in coastal communities are vulnerable to climate change.

Paradigm Shift Potential

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51. The project will enable a paradigm shift towards implementing Ecosystem-based Adaptation (EbA) and Sustainable Livelihood (SL) approaches and Ecological Fiscal Transfer mechanism to enhance long-term resilience of coastal socio-ecological systems of Rote and Sabu in Savu seascape. The project will also

support the implementation of Ecosystem Approach on Fishery Management (EAFM) and Integrated Coastal Management (ICM) approach.

Innovation

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52. The project novelty will include:

- Generation and use of climate vulnerability data and information based on assessment of coastal vulnerability associated with tropical cyclones especially in the southern waters of Indonesia, where warming of the surface ocean including the Savu Sea caused by climate change is likely fueling more powerful tropical cyclones (TCs). The project will generate a Coastal Vulnerability Index associated with cyclones in small islands of Savu Seascape.
- Implementation of ecosystem-based adaptation (EbA) and ecosystem service-based livelihood in Rote and Sabu islands by conducting coastal ecosystem restoration particularly mangrove and coral reefs; and by promoting community-based ecotourism and biopharmacology.
- Development of ecological fiscal transfer (EFT) scheme to support climate adaptation measures at local level.

II. C. COST EFFECTIVENESS

53. Beneficiaries of the project are 17,383 (individuals living in 5 villages of Rote Ndao and 5 villages in Sabu Raijua) as users of coastal ecosystem's goods and services distributed in the 30.3 km of coastline. Direct beneficiaries are approximately 15% of the population (2,607 individuals; 1180 male and 1427 female), who are directly benefiting from EbA and sustainable livelihood activities implementation. 10 target villages are positioned in the east coast and west coast of both islands, where eastward and westward monsoon winds are blowing making these areas prone to extreme weather events. These areas were hithard by TC Seroja as well, where damages and losses to the ecosystem and infrastructures mostly occurred.

District	Male	Female	Total	Percentage M-F	Households
Rote	4,021	3,848	7,869	51%-49%	1,726
Sabu	4,863	4,651	9,514	51%-49%	2,353

54. To provide illustration of the project cost effectiveness, comparison between hard infrastructure and EbA scenario to protect 30 km coastline. Hard infrastructure technologies to be compared with EbA are: geo tube breakwater, a synthetic fabric tube filled with soil to defend shores. The table below indicates that despite the geo tube protection benefit is much faster than EbA, the cost is staggering and many of the infrastructure features will drastically disrupt the existing social-ecological system of small islands and trigger cascading impacts.

	Breakwater using geo tube	Proposed EbA Project
Total cost	\$9,900,000.00	\$999,714.00
Protection benefit	Relatively quick to achieve when the construction ends	Relatively slow, following natural growth pattern
Materials	Synthetic fabrics, brought from outside, require large amount of materials to fill geo tube	Mostly local, slowly accumulate sediments and biomass
Carbon efficiency	High emission from transportation of materials	Relatively low emission, able to absorb carbon
Support provision of ecosystem services	Almost none, breakwater will drastically change ecosystem characteristics	Suitable with ecosystem characteristics

Socio-cultural viability	Abrupt change to livelihood system, potential harm to local values and create cascading impacts	Based on local livelihood system shaped by ecosystem characteristics
Economic retention	High leakage as the materials coming from outside	Low leakage, materials are locals

55. All and all, EbA is very favourable in terms of social-ecological resilience with reasonable costs per length of shorelines. The project will be able to distribute benefits of USD 429.4 per person of direct beneficiaries or USD 99,971 per village. On the other hand, EbA can bring multiplier effects, for example income generation, strengthening food security and developing local people's capacity in the long run.

II.D. ALIGNMENT WITH NATIONAL/SUBNATIONAL SUSTAINABLE DEVELOPMENT STRATEGIES

- 56. Nationally Determined Contributions (NDC) of Indonesia: The document stated Indonesia's commitment on climate adaptation: Improvement of climate resilience including economic, social, livelihood, ecosystems and landscape. This proposed project will contribute to this commitment by enhancing climate resilience of coastal areas and small islands in Savu Seascape, particularly in Rote and Sabu islands.
- 57. Indonesia's National Climate Adaptation Plan (RAN API). The project will support Indonesia's National Adaptation Plan (RAN-API) prepared by BAPPENAS in 2021, especially in Marine and Coastal Priority Sector in terms of: i) Infrastructure: by combining Ecosystem-based Adaptation (EbA) and Community-based Adaptation (CbA) approaches; and Capacity building: by providing alternative livelihood for small-scale fishermen during extreme weather. Currently, the provincial (NTT province) and districts of Sabu Raijua and Rote Ndao are preparing Climate Adaptation Plans based on The Ministry of Environment and Forestry Regulation No. P.33, 2016 about Guidelines on Climate Adaptation Action. This project will provide inputs for the Climate Adaptation Plan.
- 58. Priority Locations for Climate Resilience prepared by Bappenas (2021). Bappenas has listed priority locations for climate resilience in marine and coastal sectors, including Rote Ndao and Sabu Raijua districts in NTT. These two districts are target locations for this project. These locations are identified as areas with CVI value 4 (high) and 5 (very high) and potential ocean waves (increase >1m) which can interfere with the safety of shipping for ships <10 GT. In NTT province, both Rote and Sabu islands are listed as top priority locations.
- 59. Vulnerability Index Data Information System (SIDIK; 2015) developed by Adaptation Directorate, Directorate General of Climate Change Control, Ministry of Environment and Forestry. Based on the vulnerability index, NTT province has a relatively high vulnerable status, including Rote Ndao and Sabu Raijua districts.
- 60. Strategic Plan 2020-2024 Directorate General of Climate Change Control. One of the targets in the strategic plan is improved regional resilience through climate adaptation, by ensuring availability of vulnerability and risk data and information at regional level and number of villages participating in the PROKLIM program. This project will generate coastal vulnerability associated with tropical cyclones data and information and will promote the implementation of PROKLIM.
- 61. Policy on Marine Spatial Management, Directorate General of Marine Spatial Management, the Ministry of Marine and Fishery (issued in 2019). The policy concerns marine conservation areas, rehabilitation of coastal and marine ecosystems, spatial marine zonation, coastal community

development, marine tourism, protection of marine species, and marine and beach cleaning. The project will contribute to providing coastal vulnerability and risks data and information and climate adaptation measures that will be useful in coastal and marine spatial management of marine conservation areas (Savu Sea Marine Park).

- 62. Savu Sea Marine National Park. The Savu Sea has also been established as a marine conservation area known as "Taman Nasional Laut Sawu" by the Government of Indonesia based on The Ministry of Marine and Fishery Decree (Kepmen) No. KEP.38/MEN/2009 on 8 May 2009 with a total area of 3.5 million ha. Currently the management plan of the Savu Sea Marine National Park is under revision. The project will support the marine national park through restoration of coastal ecosystems and ecosystem-service based livelihood in coastal areas. The project will also strengthen the Integrated Coastal and Marine Management of the Savu Sea by revitalizing the multi stakeholder forum: DKPPNTT.
- 63. **NTT Province Mid-term Development Plan 2018-2023.** One of the objectives of the mid-term development plan is to ensure sustainable development and one of the targets is Improved disaster mitigation and climate adaptation. The project will improve disaster mitigation and climate adaptation by generating coastal vulnerability data in association with tropical cyclones and by implementing ecosystem-based adaptation.
- 64. **Mid-term Development Plan of Rote Ndao District 2019-2024**. One of the missions is to improve the quality and sustainability of infrastructure, spatial planning and environment. This project will support this mission by ensuring the quality and sustainability of the ecosystem through implementation of ecosystem-based adaptation.
- 65. **Mid-term Development Plan of Sabu Raijua District 2021-2026**. The project will contribute to the district's mid-term development plan target in improving sustainability and quality of environment.

II.E. COMPLIANCE WITH NATIONAL TECHNICAL STANDARDS

Relevant national policies/regulations to this project are described in below:

66. Biodiversity Conservation and Sustainable Management of Living Natural Resources:

- Law No. 5/1990 on Conservation of Living Natural Resources and their Ecosystems. This law is a reference on conservation of living natural resources and their ecosystems. The project will deal with marine conservation areas as well as marine and coastal ecosystems.
- Law No. 1, 2014 on changes of Law No. 27, 2007 on Coastal and Small Island Management. The law is a reference for national and local governments in managing coastal areas and small islands. The project focuses to improve climate resilience of coastal areas and small islands in Savu Seascape, particularly in Rote Ndao and Sabu Raijua districts.
- Government Regulation No. 26 of 2020 on Forest Rehabilitation and Reclamation. The regulation is a reference on general pattern, criteria and standard for forest rehabilitation and reclamation. Project activities will include rehabilitation of mangroves in coastal areas and will follow this regulation
- Minister of Marine Affairs and Fisheries Regulation No. 24/PERMEN-KP/2016 on Procedures for acquiring permits to manage Coastal Areas and Small Islands. The regulation is a reference for national, local governments and the private sector in acquiring location permits and permits to manage coastal areas and small islands. The project activities in conducting ecosystem restorations and developing livelihood activities will follow this regulation.

67. Climate Change

- Presidential Regulation No. 98, 2021 on implementation of carbon economic value; section 3 on Implementation of Climate Change Adaptation. The regulation is a reference for the implementation of carbon economic value to reach the nationally determined contribution (NDC) by climate mitigation and adaptation. The project will follow the regulation particularly on implementation of climate adaptation.
- Ministry of Environment and Forestry Regulation No. 33/2016 on Guidance for Development of Climate Change Adaptation Action: The regulation is a reference for national and local governments to develop their climate change adaptation action plan and subsequently mainstreaming the plan into corresponding development plan. The regulation stated area/sector identification that will be the subject should be followed by climate vulnerability and risk assessment before developing climate change adaptation actions and its implementation priorities. The actions should be mainstreamed to the corresponding development plan, program and policy. The project will support the district governments of Rote Ndao and Sabu Raijua to develop the climate change adaptation action plans.
- Ministry of Environment and Forestry Regulation No. P.84/MenLHK-Setjen/Kum.1/11/2016 about PROKLIM (*Program Kampung Iklim*); Directorate General of Climate Change Regulation No. P.1/PPI/SET/KUM.1/2/2017 about Guidelines to implement PROKLIM. The regulations are a reference for the local governments to implement the climate village program (PROKLIM). The project will support the GOI in promoting the PROKLIM and will refer to these regulations.

68. Ecological Fiscal Transfer

These two regulations will be part of the regulation framework to develop ecological fiscal transfer mechanisms at district level:

- Government Regulation No. 12, 2019 on Regional Financial Management.
- Government Regulation No. 47, 2015 article 96 on changes of Government Regulation No. 43, 2014 about implementation of Law No. 6 2014 on Village.

69. Assessment and management of environmental and social risk impacts.

- Law No 32/2009 on Environmental management and protection.
- Law No. 11, 2020 on Job Creation. Article 35 states that businesses and/or activities that are not required to be equipped with UKL-UPL as referred to in Article 34 paragraph (4) are required to make a statement of ability to manage and monitor the environment (SPPL).
- Government regulation No. 22/2021 on Implementation of environmental protection and management.
- Minister of Environment and Forestry Regulation No. 4/2021 on a list of businesses that require Environmental Permits (AMDAL, UKL-UPL and SPPL).

Most project activities are knowledge management and capacity building activities which do not require AMDAL/UKL-UPL. Project activity particularly construction of small hybrid infrastructure for ecosystem restoration will have the environmental permit (SPPL).

70. Indigenous People

- Minister of Home Affairs Regulation No. 52/2014 on Guidelines for the Recognition and Protection of Customary Law Communities.
- Minister of Environment and Forestry Regulation No. 17/2020 on Adat/Customary Forest and

Private Forest. Guidelines for Recognition and Protection of *adat*/communal use of forest areas and resources within *adat* land and/or within the designated social forestry areas.

71. Stakeholder Engagement and Information Disclosure

• Law No. 14/2018. Public Information Transparency, which guarantees the rights of citizens on public policy decisions and fosters public participation in such decision-making.

• Law No. 7/1984 Enactment of the Convention on the Elimination of All Forms of Discrimination Against Women.

- Law No. 8 of 2016 Inclusion of people with disabilities.
- Presidential Instruction No. 9/2000. Gender Mainstreaming in National Development emphasizes women's participation in development processes.

II.F. DUPLICATION OF PROJECT WITH OTHER FUNDING SOURCE

- 72. Currently, **there is no duplication** of this Project with other funding sources. No other regional government, corporations and other development agencies/CSOs program/project is currently working on the same issue and at the same target location as proposed by the Project. However, the proposed project will <u>fill the gap</u> of the previous conservation and climate change projects in NTT Province, especially in Savu Seascape.
- 73. The Government of Indonesia through the Indonesia Climate Change Trust Fund (ICCTF) implemented Coral Reef Rehabilitation and Management (COREMAP) Project in Savu Sea during 2020-2021. The project focused on strengthening the effectiveness of management and sustainable use of the Savu Sea National Park. The proposed project will follow up some results and recommendations from the COREMAP project especially in strengthening community-based ecotourism initiatives as part of ways in increasing participation of communities in sustainable use and management of the Savu Sea marine national park. The proposed project will also provide constructive inputs to strengthen the management and sustainable use of the Savu Sea by addressing climate adaptation to strengthen integrated coastal management approach.
- 74. The Ministry of Environment and Forestry implemented Strategic Action and Planning to Strengthen Action to Strengthen Climate Resilience of Rural Communities (SPARC) Project in NTT Province, particularly in West Manggarai, East Manggarai, East Sumba and Sabu Raijua Districts. In Sabu District, the SPARC project was implemented during 2013-2018 in improving access to water, food security (agriculture) and livelihood (freshwater fishery) and did not focus on climate issues on coastal ecosystems and communities.
- 75. Voices for Just Climate Action (VCA) Project has been implemented since 2021 by NGO Adaptation Coalition led by Penabulu Foundation and YAPEKA and funded by HIVOS in East Nusa Tenggara (East Sumba, Rote Ndao and Lembata Districts). The project objective is civil society groups including climate actors are recognized and supported as innovators, facilitators and advisors that are empowered and become strategic government partners; and project activities are focused on advocacy and awareness. This project will be complementary to the proposed project by engaging social society groups in raising awareness of climate adaptation issues.

II.G. LEARNING AND KNOWLEDGE MANAGEMENT

- 76. Component 1 Knowledge Management of this project focuses on knowledge generation, reposition and dissemination aspects. Main outputs from this component will be for generating information and knowledge, repository of the knowledge and for using and sharing the knowledge for practices.
- 77. Project activities in this component will include Participatory Action Research (PAR) on socio-ecological system assessment and climate vulnerability in Rote and Sabu islands, which will update data and information to be used for developing climate adaptation action plans (RAD-API) at district level and for developing a policy brief on Integrated Coastal Management at provincial level in the Component 3. The PAR itself will include focus group discussions of multi stakeholder forums at district and provincial levels consisting of scientists and academia from various disciplines (from national and local universities), representatives of district and village government, women and vulnerable communities, and NGOs; and adopt a Transdisciplinary (TD) approach with the involvement of scientists from various disciplines, and government staff, conservation and community development practitioners and community.
 - 78. In Component 1, the project will also establish climate field schools at village/sub district level to share knowledge and provide training on climate vulnerability and Ecosystem-based Adaptation practices particularly on Building with Nature approach for ecosystem restoration and on Locally Managed Marine Area (LMMA) for local communities. Establishment of field schools will involve expertise from the local university and the local government agencies at district level. Local communities participating in the training program will be involved in ecosystem rehabilitation activities and will become conservation cadres in facilitating the LMMA. Community groups from a village can share their lessons learned in implementing ecosystem restoration and LMMA to other community groups in other villages.
 - 79. The project will also produce various communication materials on EbA and sustainable livelihood, and channel the communication materials through various media both digital (such as social media) and printed media mainstreams, as well as through information centers managed by BKKPN Kupang and local government. In addition, the project will facilitate media visits for journalists and influencers to project's sites to capture lessons learned from ecosystem restoration, LMMA and livelihood activities facilitated by the project.
 - 80. The project will develop a digital information platform (website base) as a knowledge repository platform and to share knowledge, lessons learned and tools particularly on EbA practices in small islands. The digital information platform will be maintained by BKKPN Kupang as the authority for the Savu Sea Marine National Park in collaboration with YAPEKA.

II.H. CONSULTATION PROCESS

- 81. Consultative process has been conducted with stakeholders including government agencies at national and sub national levels, as well as women's groups and vulnerable communities as described below:
- 82. Table stakeholder consultations.

Consulted Stakeholder: Sub-Director of Climate Vulnerability Identification and Analysis, The Directorate General of Climate Change Control, the Ministry of Environment and Forestry (July 1, 2022). **Consultation Technique**: Discussion

Concern, needs	Inputs and opinion	Incorporation of findings into	
		project design	
Need to ensure that the	The project is expected to have	The project is in line with the GOI	
project proposal should take	contributions/recommendations at	policy on climate resilience and at	

into account government's	national level particularly on climate	national level will contribute to	
on climate change	adaptation strategy for the coastal	the project's site in the SBN	
on chinate change.	sector.	the project's site in the skin.	
Consulted Stakeholder : Agency Consultation Technique: Discus	v for Marine National Conservation Are sion	a (BKKPN) Kupang	
Concern, needs	Inputs and opinion	Incorporation of findings into	
		project design	
The agency is concerned about	The project can improve the	The project activities will include	
the condition of degrading	adaptive capacity of the ecosystems	coastal ecosystem restorations and	
ecosystems in Rote and Sabu	as well as coastal communities.	encourage sustainable livelihood of	
Islands particularly due to the	BKKPN Kupang also encourages	coastal communities based on marine	
the area in 2021	marine resources by local	resources.	
	communities.		
Consulted Stakeholder: Climate Consultation Technique: EGD	Adaptation Forum at NTT Province (Ju	ine 29, 2022)	
Concern, needs	Inputs and opinion	Incorporation of findings into	
		project design	
The forum is concerned about	The province of NTT is willing to	The project activities at village level	
the implementation of the	contribute to the achievement of	will be in line with the PROKLIM	
PROKLIM (climate village)	the national target: 20,000	program, especially in integrating	
program	PROKLIM villages. The proposed	coastal ecosystem rehabilitation,	
	project will strengthen the capacity	LMMA and livelihood activities into	
	of district and village governments	village development planning.	
	in implementing the PROKLIM program.		
Consulted stakeholder: Climate	Adaptation Multi Stakeholder Forum a	at Rote District. (May 31, 2022)	
Consultation technique: FGD			
Concern, needs	Inputs and opinion	Incorporation of findings into project design	
The forum concluded that Rote	The forum also identified	The project will also facilitate the	
Ndao district is vulnerable to	sites/villages that required climate	development of an EFT scheme to	
climate hazards, especially the	adaptation activities. In addition the	ensure financial support for climate	
vulnerable groups in coastal	forum also identified the need to	adaptation activities.	
areas including women; and	have financial support from the		
climate adaptation measures	government through ecological		
Consulted Stakeholder: District	agency for Environment Rote Ndao (N	Aav 31 2022)	
Consultation technique: Discuss	sion	nay 51, 2022)	
Concern, needs	Inputs and opinion	Incorporation of findings into	
		project design	
The agency has a mandate to	Restoration of the mangrove	Project activities will include EbA	
decrease greenhouse gas	ecosystem as an ecosystem-based	practices including mangrove	
emission in addition to climate	adaptation practice will also have	restorations and management. This	
adaptation.	potential for carbon sequestration	will have environmental co-benefits	
	and decrease greenhouse gas	in reducing GHG emission.	
Consulted Stakeholder: District	Government BAPPFLITRANGDA DI HK	Sabu Baijua (May 24, 2022)	
Consultation Technique: FGD			
Concern, needs	Inputs and opinion	Incorporation of findings into	
		project design	

Some concerns identified are	It is expected that the project will	The project will focus on
the need to develop	focus on sustainable use of coastal	rehabilitating and managing coastal
ecotourism to support the	ecosystems.	ecosystems including in Sabu; The
current district's mid-term		project also take into account
development plan especially in		ecotourism activity as part of Eba and
improving sustainability and		to improve community livelihood.
quality of environment. In		
addition, coastal abrasion has		
also been also the major		
concern in Sabu island that		
might be caused by sea level		
rise and other anthropogenic		
threats.		
Commute of Challed and Allow Mileson	An annual the Distant Multi Challes I also Free	(11-21-2022)

Consulted Stakeholder: Women's group in Rote Multi Stakeholder Forum (May 21, 2022) **Consultation Technique**: FGD

Concern, needs	Inputs and opinion	Incorporation of findings into
		project design
Women's roles are limited	The project should be able to	The project will consider gender
and constrained by unjust	promote more women	balance and address gender issues in
gender proportion; male is	participation and access to decision	conducting socio-ecological
dominating the group	making; The project should discuss	assessment, ecosystem restoration
activities (i.e., Mebba, Lobo	with community leaders (i.e.,	and management and livelihood
Rai village)	manoholo – case in Rote Ndao)	activities. The project will also take
	about gender role discrepancy and	into account gender issues in
	seek for culturally appropriate	preparing climate adaptation action
	solutions	plans.
Women are sometime	More livelihood	Livelihood activities in the project
occupied with work (assist	options/diversification to reduce	will take into account more
husband as breadwinner) in	women burden; Future project	livelihood options to reduce
the field and lack of time to	should contribute to improve	women's burden.
manage household i.e.,	protein intake/food diversification	
children higher risk to stunting	especially for infant/children	
Areas for gleaning (foraging in	Future project should contribute to	Coastal ecosystem restoration will
the intertidal flats) become	revive the situation and help to	ensure sustainability of ecosystem
less available. TC Seroja	seek for solution	services including for areas for
changes the condition		gleaning.
(Holulai, Oelua and Lobo Rai)		
Getting water sometime are	Future project should contribute to	The project will provide community
cumbersome for women,	reduce the burden	grants for climate resilience and
especially dry season		sustainable livelihood initiatives from
		the community. The grants can be
		used to address climate resilience on
		water resources.
Consulted Stakeholder: Underp	privileged group in Holulai Village, Rote	Ndao (May 27, 2022)
Consultation Technique: FGD		
Concern, needs	Inputs and opinion	Incorporation of findings into
		project design
Disadvantaged people are	Create more consultation process,	Project activities will include
often excluded in the	involving underprivileged groups;	facilitation of village/community
decision-making process,	Project should prioritise	meetings and ensure inclusive
particularly during village	underprivileged group	participation of communities.
planning.		

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Food supplies are just enough,	The future project should	Livelihood activities in this project	
no opportunity to improve the	contribute to establish food	will strengthen food security.	
dietary composition. There	security		
are provisions of subsidies			
from the government but not			
enough.			
There are concern about	The program should contribute to	Ecosystem restoration and	
insufficient fishing gears and	improve fishing activities	management will ensure	
their boat cannot cope longer		sustainability of ecosystem services	
distance/time to fish		including for fishery.	
Consulted Stakeholder: Traditional groups in Sabu Raijua (May 24, 2022)			
Consultation Technique: FGD.			
During some projects in the	Future project should better	The project will take into account	
past, traditional	involve traditional groups; more	traditional practices in conserving	
practices/rituals are	consultation needs to be made	ecosystem resources.	
misplaced/much simplified;			
consultation processes are			
limited.			

II.I. JUSTIFICATION FOR FUNDING REQUEST

83. The table below describes the adaptation reasoning by highlighting the differences between the 'without project' scenario and the 'with project' scenario:

Without Project Scenario	With Project Scenario	
Savu Seascape management is limited, mainly relying	30,3 km of coastal zones are better managed;	
on BKKPN Kupang role only, in which resources are	10 villages participate in better coastal	
dispersed thinly in the vast Savu Sea and cannot	management through EbA activities, locally	
reach the desired effectiveness.	managed marine areas (LMMA), improving	
	ecosystem resilience. Coastal management will	
	also involve village and district governments.	
Seaward mangrove formations are degraded and	Mangrove rehabilitation activities assist the	
fragmented caused by extreme weather; landward	mangrove recovery process by implementation	
mangrove formations under pressure from land	of Building with Nature framework (seaward	
conversion and unsustainable use	and landward).	
Gleaning areas in intertidal seagrass zones which are	Seagrass rehabilitation activities assist seagrass	
an important source of food and income by local	ecosystem recovery and gradually improve	
communities are damaged by extreme weather.	food systems for gleaning; more protein source	
	choices from animals associated in seagrass	
Coral reef ecosystems are damaged by extreme	Coral rehabilitation sites using grey	
weather and coral bleaching events; Rehabilitation	infrastructures are implemented; rehabilitation	
process is absent, relying only on natural fecundity	sites will be done at 5-10 m depths to minimise	
capacity; declining fishes for small scale fishermen.	temperature and mechanical stresses; more	
	fishes available gradually.	
Coastal communities, mainly small-scale fishers (most	More options of EbA-based sustainable	
of them underprivileged) are relying on fishing	livelihood activities; coastal social-ecological	
activities as livelihood; fish resources declining due to	systems are more resilient.	
habitat degradation and overfishing.		

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PROKLIM (climate resilient village, government	10 villages will be stimulated and participated
program) is not gaining traction progressively due to	into PROKLIM and will get support from the
massive relocation of funds to pandemic control	2024-2028 government budget.
efforts.	
Women participation in EbA activities are limited	At least 30% women participants are involved
	in the planning, implementation, monitoring
	and learning process of EbA activities; more
	gender balanced community groups; more
	women-based groups emerge
Traditional communities and traditional practices are	More traditional practices are integrated into
rarely connected with EbA activities	EbA schemes (e.g., dea batu, papadak,
	hoholok); traditional communities are more
	involved in the EbA activities

II.J. SUSTAINABILITY OF PROJECT OUTCOMES

84. Sustainability of economic impact

Diverse community livelihood business models developed by this project which will contribute to the improved economy of the local community, take into account local market and value chain viability that will be assessed prior to livelihood business incubation to ensure economic sustainability of livelihood and economic activities. Community livelihood businesses will be based on sustainable use of coastal ecosystem goods and services such as ecotourism, marine bio-pharmacology products, aquaculture, capture fishery, seaweed farming, salt farming, the Asian Palmyra Palm (Lontar)-based products. The project will also strengthen the link of livelihood activities generated by the project with existing village business units (BUMDES) or cooperation as well as relevant local government agencies to continuously support the livelihood generated by the project.

85. Sustainability of Social Impact

Restored and well managed coastal ecosystems as well as sustainable livelihood promoted by this project will provide sustainability of social impact as environmental services provided by the ecosystems will continuously meet the needs of future coastal communities in terms of food security such as secured fishery production and food supplies; livelihood such as increase in diversification of income and improved marketing of products; health and wellbeing; and improved gender equality. The project will also preserve traditional knowledge in conserving and managing coastal resources such as Hoholok/Papadak, Dea Batu in Rote and Sabu islands, thus preserving cultural values of local communities. Communities participating the project will have

86. Sustainability of Environmental Impact

Building with nature ecosystem restoration and LMMA activities will reduce vulnerability of communities to the impacts of climate change such as storm surge and floods, and improve ecosystem services. To ensure sustainability of these environmental impacts, the project will integrate EbA and sustainable livelihood activities in the village and district development plans and develop knowledge management platforms such as field schools and digital information platform to share EbA tools and practices.

87. Sustainability of Institutional and financial Impact

The project will strengthen governance, coordination and finance to support climate resilience of coastal ecosystems in Rote and Sabu islands. To ensure sustainability of this institutional and financial impact, the project will work with the local government of Rote Ndao and Sabu Raijua districts as well as other stakeholders (academia, communities, NGOs, media and private sector) in developing climate adaptation action plans and an EFT scheme. At village level the project will integrate EbA practices with village development plans and strengthen the capacity of existing community groups for ecosystem monitoring and surveillance (such as POKMASWAS, KOMPAK).

II.K. OVERVIEW OF ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS IDENTIFIED AS BEING RELEVANT TO THE PROJECT.

88.

Below are the screening results of project activities on potential environmental and social impact and risks, based on the checklist of environmental and social principles.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		
Access and Equity		
Marginalized and Vulnerable Groups		
Human Rights		
Gender Equality and Women's Empowerment		
Core Labour Rights		
Indigenous Peoples		
Involuntary Resettlement		
Protection of Natural Habitats		
Conservation of Biological Diversity		
Climate Change		
Pollution Prevention and Resource Efficiency		
Public Health		
Physical and Cultural Heritage		
Lands and Soil Conservation		

89. Most of the project activities are about knowledge management, capacity building and implementation of ecosystem-based adaptation and ecosystem service-based livelihood that are unlikely to have adverse environmental and social impacts. Project risks are fewer in number, smaller in scale and less widespread; and mitigation actions are in place at the environmental and social principles that might be triggered by the project (see Environmental & Social Management Plan/ESMP of this project in separate file). Therefore the project should be categorized as <u>Category C</u>. Further assessment and management of potential impacts and risks are described in Section III.C: Measures for Environmental and Social Risk Management.

90. With regards to the gender policy of the Adaptation Fund, a preliminary assessment of gender and vulnerable group context in the project sites has been conducted, and the findings are as follows:

Gender Context

- 91. In the project sites (10 targeted villages), the population ratio between men and women is 51% Male and 49% Female, thus there are about 4,021 male and 3,848 female in villages in Rote and 4,863 male and 4,651 female in villages in Sabu.
- 92. Women and men have different capacities in adapting to the adverse effects of Climate Change. The difference in needs, capacities, and societal roles lead to differing impacts of Climate Change on both sexes and exacerbate ongoing gender inequality. There is gender segregation in productive, reproductive and public roles, resulting in inequality in power relations between women and men, especially in terms of access to marine and fishery resources in both Rote and Sabu islands; in the seaweed farming community, men and women share the same jobs but do not have the same financial independence; The pattern of traditional structure in the two districts is patrilineal-patrilocal, familial relations are calculated according to the male lineage, considering men to have a higher degree than women. With this structure of society, women and men tend to engage in different jobs in the fishery sector, with different results. In addition women tend to be less involved among the authorities and generally underrepresented in local decision-making structures in village and district levels. Compared to their male counterparts, women also struggle to gain access to natural resources, contributing to power imbalances that make them more vulnerable to the impacts of climate change and environmental degradation.
- 93. In this project women will have better access in decision making of planning and managing coastal resources. EbA and livelihood activities will focus to improve knowledge, skills and access of women to develop livelihood and income generating activities. The project will also encourage women to participate in training and focu group discussions/workshops to express and contribute their ideas. The project will also amplify voices and participation of women by documenting and sharing meaningful participation of women in project activities.

Vulnerable community context

- 94. Communities living in the target coastal villages are mostly poor families and are small scale fishers who operate and manage fishery activities on a household basis, fishing with or without a fishing boat of < 5 GT, and using fishing gear that is operated by manpower alone. Small-scale fishers have limited access in managing coastal resources. However traditional practices in managing coastal resources still exist such as Hoholok and Papadak and Dea Batu. These traditional practices are opportunities in strengthening conservation and sustainable use of coastal ecosystems such as mangrove, coral reef and seagrass bed.
- 95. The project will strengthen the resilience of coastal ecosystems by restoring degraded ecosystems and establishing LMMA, where small-scale fishers and their traditional practices can be involved and strengthened. In addition, livelihood activities will provide opportunities for the vulnerable and marginalized communities in generating more sustainable income.

PART III: IMPLEMENTATION ARRANGEMENT

III.A. ARRANGEMENT FOR PROJECT IMPLEMENTATION

- 96. The Implementing Entity of the project will be the Partnership for Governance Reform in Indonesia (Kemitraan) and the executing entity will be YAPEKA consortium (YAPEKA, Yayasan Penabulu, CTSS-IPB). YAPEKA and the consortium will establish a Steering Committee and a Project Management Unit (PMU).
- **97.** The executing entity will be responsible for managing the execution of project activities, responsible for achieving target indicators and financial disbursement. The main roles of the executing entity are as follows:

1. Project preparation: including preparation of work plan and annual budget, preparation of M&E tools and guidelines, preparation of ESMP, SGIP and other Stakeholder Engagement Plan; development of communication protocol, recruitment of Project Management Unit (PMU) staff and coordination arrangement with the Steering Committee.

2.Project implementation: overseeing the PMU in executing project activities, managing sub-projects, monitoring and evaluation, and financial disbursement monitoring.

- 98.The Steering Committee (SC) consists of representatives of consortium members and representatives of the national and local government, and will oversee the entire Project implementation to ensure that project results are achieved and contribute to the Adaptation Fund Strategic Result Framework. The SC will provide technical guidance for the PMU for the Project implementation. The SC will hold regular meetings to evaluate the performance of the PMU.
- 99. The Project Management Unit (PMU) will be led by a Project Manager/Project Team Leader and supported by Operation Manager, M&E Manager, Consultants/Specialists, and other project staff.

Position	Roles and Responsibilities
Project Manager/ Team Leader	 Prepare an annual work plan and provide guidelines for consultants/experts and project staff to execute the work plan. Prepare TORs for project consultants/experts. Provide inputs on project budgeting. Ensure achievement and quality of project results. Oversee the implementation of project activities and ensure compliance with project guidelines. Responsible for preparing project progress and final report; and ensuring good quality of project activity reports. Ensure and maintain project team work Develop coordination with the local government and other stakeholders. Provide regular updates to the steering committee and donors when required.
Operation Manager	 Responsible for the overall operations of the project, including developing guidelines and SOPs for project staff. Work with the Project Manager to prepare the annual budget. Monitor budget disbursement and prepare financial reports. Ensure operational and administration support to consultants/experts. Supervise procurement of goods and services. Manage project administration documents.
M&E Manager	• Develop M&E strategy and plan.

	 Lead M&E supervision missions. Document project progress vs target indicators Ensure compliance of ESMP and SGIP. Assist the Project Manager in preparing progress reports. Provide guidelines for project evaluation.
Consultants/ Specialists	 Responsible for carrying out specific tasks (e.g. implementation of EbA, Livelihood, capacity building, etc.) that will be written in the TORs. Prepare activity and progress reports. Provide technical assistance in implementing project activities.
Field Facilitators	 Ensure coordination and implementation of project activities at local and village levels. Develop coordination and communication with the local and village government and other stakeholders for smooth implementation of project activities. Facilitate workshops, training, FGDs with local stakeholders and communities/villages. Coordinate and facilitate the implementation of EbA and livelihood activities.



Figure: Project Organization Structure

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100. YAPEKA and its consortium will optimize the project operations at field level in Rote and Sabu islands by maintaining and developing existing networks with local NGOs/CBOs and conservation cadres in the islands to be part of the implementation of the project at field level.

III.B. MEASURES FOR FINANCIAL AND PROJECT RISK MANAGEMENT

101. Key Financial and project operational risks and mitigation measures identified at this stage are as follows:

Risks	Mitigation measures	
Financial Risks		
1. Miss-use of funds/fraud	 Implement YAPEKA's Guidelines for anti-corruptions and grievance mechanisms. Implement SOP on financial management and accounting systems. Minimize cash transfers and cash advances. Internal and external audit. 	
 Lack of financial management capacity of NGOs partners/ sub- grantee. 	 Training on financial management for NGO partners/sub grantees. Conduct financial and administration monitoring/audit. 	
Project Operational Risks		
 Disagreement among consortium members 	 MoU and implementing arrangement agreed and signed by consortium members. Facilitate coordination meetings among consortium members. 	
2. Irregular means of transportation to access project locations (Rote and Sabu islands) due to bad weather in Savu Sea.	 Regularly update local weather reports prior to travelling to Rote and Sabu islands. Optimize coordination via telephone/internet. Optimize and delegate the local Rote and Sabu team 	
 Varied and inconsistent level of participation of stakeholders. 	 Prepare a stakeholder engagement plan. Layering approaches and tailored approaches to specific needs of stakeholders when necessary 	
 Complaints/feedbac k from beneficiaries, stakeholders, public 	- Grievance and accountability mechanisms in place and shared with stakeholders include handling complaint unit.	

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	Risks	Mitigation measures
5.	Project staff and stakeholders may be affected by the Pandemic Covid-19.	 Follow the Pandemic Covid-19 protocol. Coordination of training/workshops and field activities with the local Pandemic Covid-19 task force.

III.C. MEASURES FOR ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

Risk and risk rating	Mitigation Measures
Compliance with the Law	
By regulation, some areas of Laut Sawu NP are forbidden for extraction (i.e. core zone - zona inti) including extraction required for coral/seagrass/mangrove rehabilitation. Some exceptions can be made under specific circumstances (High)	Avoid species extraction from the core zone when possible; If the project has to do that (i.e. some species are urgently required) then the project will consult with BKKPN Kupang and follow legal requirements.
Access and Equity	
EbA - general: elite capture (low- medium)	implement consistent participatory and social equity framework; create specific consultation to the women and underprivileged groups; involve village representative board in planning and implementation
Process to allocate access to the project might not be transparent and not well coordinated with stakeholders; Selection of locations/villages for the implementation of EbA and livelihood activities might trigger jealousy among other villages (Low).	The project will prepare and disclose a Stakeholder Engagement Plan; and coordinate selection of locations/villages for the implementation of EbA and livelihood activities with the local government and other relevant stakeholders
Marginalized and Vulnerable Groups.	
Marginalized and vulnerable groups might have limited access to participate in the project implementation. Most coastal communities are poor and marginalized small-scale fishers who are operating and managing fishery on a household basis and with limited fishing gear. Small scale fishery depends on ecosystem services provided by mangroves, coral reefs and seagrass. Degradation of these ecosystems will lead to decrease of fishery productions (Low-medium).	The project will ensure participation of marginalized and vulnerable groups in sustainable livelihood activities as well as in EbA activities. The project will also provide training for the marginalized and vulnerable groups on alternative livelihood activities, and participate in planning and managing coastal resources. identify marginalized and vulnerable groups in project locations, prepare and implement a social-gender inclusion plan (SGIP), encourage marginalized/vulnerable groups to participate in project activities, document meaningful participation of marginalized/vulnerable groups in project activities.

102. Table of Environmental and Social Risk Management

Risk and risk rating	Mitigation Measures
Human Rights	
Human rights issues are not an explicit part of consultations with stakeholders during the identification and/or formulation of the project/programme (Low).	Implement Free, Prior, Informed, and Consultation (FPIC) during consultations with stakeholders and communities and in formulation of project activities.
Gender Equality & Women's Empowerment	
Women and men have different capacities in adapting to the adverse effects of Climate Change. The difference in needs, capacities, and societal roles lead to differing impacts of Climate Change on both sexes and exacerbate ongoing gender inequality; Women tend to be less involved among the authorities and generally underrepresented in local decision- making structures in village and district levels. Compared to their male counterparts, women also struggle to gain access to natural resources, contributing to power imbalances that make them more vulnerable to the impacts of climate change and environmental degradation.Women might have limited access or neglected to participate in the project implementation (Medium).	In this project women will have better access in decision making of planning and managing coastal resources. EbA and livelihood activities will focus to improve knowledge, skills and access of women to develop livelihood and income generating activities. The project will also encourage women to participate in training and focu group discussions/workshops to express and contribute their ideas. The project will also amplify voices and participation of women by documenting and sharing meaningful participation of women in project activities. The project will prepare and implement a social-gender inclusion plan (SGIP), encourage women to participation of women in project activities.
Core Labor Right	
Forced or compulsory labor, child labor, descrimination and respect of employment and occupation (low)	Implement YAPEKA's Ethical Guidelines; update the guideline when necessary.
Protection of Natural Habitats	
 EbA -BWN Mangrove restoration: EbA - BWN Mangrove: Construction works to develop hybrid infrastructure may use materials from illegal activities, such as sand from illegal sand quarry (Medium) Low survival rate of mangrove seedlings. EbA - Spider Frame coral transplantation: 	 EbA -BWN Mangrove restoration: The project proponent will ensure subcontractors state that they will use legal materials in constructing hybrid infrastructure Select local species; prepare transit nursery; mangrove rehabilitation training; select suitable locations based on ecology and hydrology assessment. EbA - Spider Frame coral transplantation: Develop guidelines/SOP for collecting and transplanting corals; Train and brief divers prior to collecting corals to

Risk and risk rating	Mitigation Measures	
 Damage of coral reefs caused by boats and divers when collecting corals during coral transplantation. (Low) Recruitment of coral reef fragments might cause even more damage to the source site (Medium) EbA - LMMA: Management of coastal resources might limit access to coastal resources and cause discontent among small-scale fishers (medium- high) EbA - Livelihood: Ecotourism and other livelihood activities that might deprive natural habitats (Medium) 	 minimize damage of corals; throw boat anchors in areas without coral reef. Apply strict recruitment protocol as approved by BKKPN/BRIN; only recruit from local coral sources to reduce risks. EbA - LMMA: Social-ecological assessment to understand the livelihood system; diversification of livelihood; intensive consultation with fishermen; diversification of fishing gears to optimize catch and compensate losses; cross-sectoral coordination to mobilise support for impacted fishers. EbA - Livelihood: Social-ecological assessment to understand the livelihood system; provide code of conduct and guidelines for livelihood activities. 	
Conservation of Biological Diversity		
 EbA -Livelihood: Ecosystem-based livelihood might disturb the biological diversity of coastal ecosystems (Medium) 	 EbA -Livelihood: Conduct viability assessment of ecosystem resources; establish no-take zone and/or local regulation in utilizing the resources. 	
Climate Change		
 Use of fossil fuels for production of livelihood products that might increase GHG emission (Low) Open burning of waste practices that might increase of GHG emission (Low) 	 Limit the use of fossil fuel and use renewable energy when possible (e.g.solar panel for electricity) Develop and socialize guidelines for proper waste disposal. 	
Pollution Prevention and Resource Efficiency	y	
 EbA - BWN mangrove restoration: Polybag waste in mangrove nursery/planting activities (Low) EbA - Spider Frame coral transplantation: Use of epoxy plastic might pollute the waters (Low) EbA - Livelihood: EbA - Livelihood: ecotourism and production of other livelihood products might produce waste and pollute the nearby ecosystems (Medium) 	 EbA - BWN mangrove restoration Use recyclable mangrove poly-bags (e.g made of palm leaves), and proper plastic waste disposal. EbA - Spider Frame coral transplantation: Use locally sourced materials; avoid/minimize plastic structure for growth substrate; fixing the artificial substrate into the sea floor to avoid loose materials EbA - Livelihood: Prepare guidelines for waste management in ecotourism areas and livelihood activities, brief community groups implementing ecotourism and other livelihood activities on guidelines to manage the waste, proper waste disposal. 	
Public Health		

Risk and risk rating	Mitigation Measures
 <u>EbA - Rainwater harvesting</u>: Water harvested might pose health hazard (Low-Medium) <u>Project activities - General</u>: Project activities might transport people to one place to other places and gather people during indoor training and workshop events, which might be at risk to the pandemic covid-19 (Low). 	 EbA - Rainwater harvesting: Water-borne diseases (i.e. dengue, dyarrhea) prevention measures; water treatment, water sanitation and filtration training. Project activities - General: The project will follow the current Covid-19 protocol to prevent the spread of pandemic Covid-19; and will coordinate with the local Covid-19 task force.

III.D. MONITORING AND EVALUATION ARRANGEMENT

- 103. The project Monitoring and Evaluation will focus on monitoring and evaluation of project progress and achievement of project results, compliance to the Adaptation Fund Environmental and Social Policy, and the Gender Policy of the Adaptation Fund. Below is the description of M&E arrangement and a table showing M&E component budget of the project:
- 104. Under this component, the project will conduct several activities as follows:
 - Prepare M&E Tools for the project: a detailed M&E plan, Environmental and Social Management Plan (ESMP), Social Gender Inclusion Plan (SGIP), Grievance Mechanism, and Stakeholder Engagement Plan (SEP). The project will recruit consultants to prepare, ensure implementation and evaluate M&E plan, ESMP and SGIP, Grievance Mechanism, and SEP.
 - **Conduct Kick-off/Inception workshop** that will integrated with the Workshop on Implementation of Climate Resilience Policy at local level will be held at the beginning of project implementation. The workshop will involve key stakeholders including government agencies at national and sub-national level, local university, NGOs and CBOs; and will identify and update key strategic issues in climate resilience of the target landscape/seascape. The workshop result will be a base-line for any refocusing project interventions.
 - **Conduct joint monitoring and evaluation missions**. Regular joint monitoring and evaluation (M&E) missions will be conducted at least every six months of project implementation, to review project progress, compliance, quality, and identify any systemic issues as well as to write down recommendations for corrective actions.
 - Prepare progress reports (quarterly and annually). The Project Management Unit (PMU) will prepare progress reports on a quarterly and annual basis. The progress report will include progress of project implementation based on agreed key performance/target indicators, SGIP, and ESMP; and budget disbursement.
 - **Conduct Project Evaluation** that will be conducted by independent consultants at the end of the project, to evaluate achievement of target indicators as well as to analyse lessons learned from project implementation.

Table: M&E component budget of the project

PE 4	Project Evaluation Report	\$ 714
PE 5	M&E Mission	\$ 10.714

III.E. RESULTS FRAMEWORK

105. Table Result Framework

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation	
Objective 1: Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options					
Outcome 1: Increased generation and use of coastal climate vulnerability information in decision- making.	 No. of climate adaptation action plans that use the updated coastal vulnerability associated with tropical cyclones. No. of beneficiaries of improved early warning systems. 	 Climate adaptation action documents. List of training participants on accessing and interpreting climate-extreme weather. 	 Lack of knowledge management to ensure sustainability of generation and use of coastal vulnerability information in decision making. 	 Strengthen knowledge management of local universities to support generation and use of coastal vulnerability information in decision making. 	
Output 1.1. Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands.	 1 Report on coastal vulnerability associated with tropical cyclones in Rote and Sabu islands 	 Report and spatial data on coastal vulnerability associated with tropical cyclones in Rote and Sabu islands. 	 Barriers in acquiring supporting data from key data holders. 	 Identification of and preliminary coordination with key data holders. 	
Output 1.2. Climate Field Schools to implement EbA	 4 climate field schools to implement EbA at sub-district level. 	 Fleld School Training modules and materials Trainers at field schools List of training participants Field school equipment 	 Limited trainers for field schools. 	 Coordinate and develop collaboration with local universities for training resources. 	
Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures.	 50 % of targeted population groups participating in adaptation and risk reduction awareness activities Strengthened capacity of 	 Knowledge Attitude and Practice (KAP) Survey results on predicted adverse impacts of climate change, and of appropriate 	 an unclear percentage of increase of awareness is based on project activities. 	 KAP survey design includes population with project intervention and population 	

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation	
	national and sub national stakeholders and entities to capture and disseminate knowledge and learning.	 responses. Strengthened local university in Climate resilience knowledge management. 	 Obstacles in strengthening the capacity of a local university in climate resilience knowledge management. 	 without project intervention (control population) Provide technical assistance/mentori ng the process of strengthening the local university. 	
Output 2.1. Diverse communication materials & channels on EbA practices	 5 communication channels (digital and non digital media) 5 types of communication materials. 	 Communication channel links and printed media copy/documentation of communication materials 	 Limited access of media channels 	 Use social media and IOT. 	
Output 2.2 . Journalists, influencers and community groups participating in adaptation and risk reduction awareness activities.	 At least 10 news stories in the local press and media cover the topic on adaptation and climate risk reduction in Savu Seascape. 	 Copy of local media and press (digital/printed) that cover the topic on adaptation and climate risk reduction. 	 Limited knowledge of local journalists/ influencers on adaptation and climate risk reduction issues. 	 Provide press releases on project activities and results for journalists/ influencers ; Involve journalists/influenc ers in project activities. 	
Output 2.3 . Digital information platform on EbA practices	 1 digital information platform on EbA practices university ed . 	 Link of digital information platform on EbA practices. 	 Limited data/information resources. 	 Identify EbA practices from other projects.) 	
Objective 2: Improved adaptive capacity of coastal socio-ecological systems to withstand extreme weather and climate					
Outcome 3: Vulnerable ecosystems strengthened in response to climate change	 4 coastal ecosystem landscapes with improved resilience and management. 	 Restored degrading ecosystems in the four landscape 	 High a nthropogenic threats occur in the 	 The project will identify target landscapes with 	

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
impacts, including variability.		 Coastal ecosystem management practices within the four landscape 	landscapes.	less anthropogenic threats or where anthropogenic threats can be eliminated.
Output 3.1. Restored coastal ecosystems by implementing the Building with Nature (BWN) approach.	 14 units BWN coastal ecosystem restoration implemented. 	 Documentation of BWN coastal ecosystem restoration processes. Physical evidence of ecosystem restoration/ rehabilitation. Reports on BWN coastal Ecosystem restoration. 	 Overlapping land use plan on target locations that may inhibit sustainability of BWN coastal ecosystem restoration . Ecosystem Rehabilitation activities are not well maintained. 	 The project will consult with the local agency for development planning especially on spatial plans of the target locations. The project will prepare guidelines to monitor rehabilitated ecosystems.
Output 3.2. Locally Managed Marine Area (LMMA) established	 14 LMMAs established at sub district level. 	 Physical evidence of LMMA at village level Supporting village regulations on LMMA 	 Conflicting use of LMMA. 	 Develop coordination with BKKN Kupang and local government.
Output 3.3. Small infrastructure to support ecosystem monitoring and surveillance.	 4 monitoring towers 1 mangrove track 1 information center 	 Feasibility study and DED of infrastructures Constructions of infrastructures Construction reports and documentations. 	 Infrastructures are not well maintained 	 Coordination with relevant local government for maintenance, and village government. Prepare and socialize O&M guideline

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Outcome 4: Communities with improved and diversified livelihoods.	 No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies Type of income sources for households/livelihood generated under climate change scenarios. 	 List of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies. Reports on business development of livelihood opportunities 	 Improper operation and maintenance of adaptation assets. Challenges in the Vulnerability context of livelihood (e.g. marketing, seasonality, etc.). 	 Operation and maintenance plan agreed by beneficiaries. Feasibility study of livelihood activities.
Output 4.1.Rapid local market assessments at the village level to identify site- specific livelihoods opportunities	 1 Local Rapid Livelihood market assessment at village level to identify site-specific livelihood opportunities. 	 Report on Local Rapid Livelihood market assessment at village level to identify site-specific livelihood opportunities. 	 The assessment is not comprehensive due to limited information from the site. 	 Participatory action research approach in conducting the assessment.
Output 4.2. local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.	 90 people trained on sustainable livelihood production practices (e.g. fishery, aquaculture, ecotourism, etc.) 60 people trained on livelihood business management. 	 Training modules/materials. List of training participants on sustainable livelihood production practices and on livelihood business management. Copy of training certificates. Training report document 	 Training participants cannot implement the knowledge from training materials Participants of the training do not include women and vulnerable/marginali zed groups. 	 Training participants will be involved in developing and implementing businesses. Encourage inclusion of women and vulnerable/marginal ized groups in livelihood activities.
Output 4.3 value chain viability assessments to guide the design of the livelihood sub-grant for the local communities	 1 Value Chain Viability Assessment to guide the design of livelihood sub-grants for the local community. 	 Document on Value Chain Viability Assessment to guide the design of livelihood sub-grants for the local community. 	• The assessment is not comprehensive due to limited information from the site.	 Participatory action research approach in conducting the assessment.

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation.	 6 villages provided with technical assistance and facilitation during community proposal preparation and throughout business implementation. 6 Community proposals on livelihood activities. 	 Guidelines for preparing proposals and implementing livelihood activities Community proposals on livelihood activities. Livelihood facilitation activity reports. 	 Lack of local/village policy and regulation support on livelihood activities from the local/village governments. 	 Coordinate livelihood activities with the local/village governments.
Output 4.5. Community livelihood subgrants.	 6 community groups agreed to the Terms and conditions to use the community subgrants. 6 community groups received subgrants to implement livelihood activities. 	 Signed document of terms and conditions to use the subgrants by the representative of community groups. Document of receipt of the subgrants signed by the community groups. Community subgrants financial reports Livelihood business progress reports. 	• Miss-use of funds/fraud.	 Prepare financial guidelines for the community groups/ beneficiaries Financial monitoring.
Objective 3: Strengthened the	enabling policies and institutions to in	mprove the management and clima	ate budgeting for coastal e	cosystems.
Outcome 5: Strengthened local and village governments capacity to reduce risks associated with climate-induced socio economic and environmental losses.	 Two Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale). No. of targeted institutions benefitting from the direct access and enhanced direct 	 Adaptation action plans document. List of district government institutions and villages participating in preparing Adaptation Action Plans List of district government institutions and villages participating in developing EFT schemes. 	 Preparation of Adaptation Action Plans are not in district and village agenda. Stakeholders (including local parliament) do not have consensus in the EFT scheme. 	 Preliminary coordination with district and village. Facilitate multi stakeholder forum workshops.

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	access modality.			
Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.	 2 Adaptation Action Plans developed by the districts (Sabu Raijua and Rote NDao)and at least 4 adaptation action plans developed by the village government. 	 List of district government institutions and villages participating in preparing Adaptation plans. Adaptation Plan Documents. 	 Preparation of Adaptation Action Plans are not in district and village agenda 	 Coordination with district and village government agencies. n
Output 5.2. Strengthened DKPPNTT as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issues.	 1 Policy brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea 2 Multi Stakeholder Forum (DKPPNTT) Workshops to prepare and disseminate Policy brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea. 1 Multi Stakeholder Forum (DKPPNTT) Workshops to roadmap for integrating the policy brief recommendation with coastal & marine spatial/development plans. 	 Document of Policy Brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea. Activity Reports on Workshops to prepare and disseminate Policy brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea, including list of participants and documentation. Activity Report on Workshops to roadmap for integrating the policy brief recommendation with coastal & marine spatial/development plans including list of participants and documentation. 	 Recommendations of the policy brief are difficult to be integrated in various sectors. Participants of the MSF workshops are dominated by men. 	 Recommendations of the policy brief should clearly be addressed to specific sector/ stakeholders. Encourage participation of men in the workshop. Document meaningful participation of women in the workshops.
	•	•	•	•
Output 5.3. Climate	• 2 EFT schemes developed by	List of district government	Stakeholders	Facilitate multi

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.	 the district governments. 1 set of EFT ecological indicators based on coastal adaptation. 	 institutions and villages participating in developing EFT schemes. EFT indicators based on coastal adaptation. EFT document. 	(including local parliament) do not have consensus in the EFT schemes.	stakeholder forum workshops.
Output 5.4. Restored/managed Coastal ecosystems that are monitored and registered in the SRN.	 14 Restored/managed Coastal ecosystems that are monitored and registered in the SRN. 	 Monitoring and surveillance community groups Monitoring activities SRN Registry 	 Different readiness of villages in monitoring and surveillance as well as SRN registration. 	 Facilitate training and socialization of monitoring and surveillance as well as SRN registration.

III.F. ALIGNMENT WITH ADAPTATION FUND RESULTS FRAMEWORK.

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Objective 1: Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options	Updated coastal and small island vulnerability information available for decision-making.	AF Outcome 1: Reduced exposure to climate-related hazards and threats	1.1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis.	62,143
	Percentage of target coastal communities that are aware of the impacts of extreme weather and climate; and of adaptation	AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate	55,714

Objective 2: Improved adaptive capacity of the coastal socio-ecological system to withstand extreme weather and climate.	Area of restored/conserved ecosystems or with improved management.	AF Outcome 5: Increased ecosystem resilience in response to climate change and variability- induced stress.	5.1. Ecosystem services and natural resource assets maintained or improved under climate change and variability- induced stress.	397,000
	Number of communities with improved/diverse livelihood.	AF Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in target areas.	6.1. Percentage of households and communities having more secure access to livelihood assets.	143,214
Objective 3: Strengthened the enabling policies and institutions to improve the management and climate budgeting for coastal ecosystems.	Number of local and village government staff with improved capacity to respond to and mitigate climate impacts.	AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased.	179,571

Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
Outcome 1: Increased generation and use of coastal climate vulnerability information in decision-making.	Updated Risk and vulnerability information in Rote and Sabu islands after TC Seroja.	Output 1.1. Risk and vulnerability assessments conducted and updated.	 1.1.1. No. of projects that conduct and update risk and vulnerability assessments. 1.1.2 No. of early warning systems (by scale) and no. of beneficiaries covered. 	USD 62,143
Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures.	Targeted population groups participating in adaptation and risk reduction awareness activities.	Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities.	3.1.1 No. of news outlets in the local press and media that have covered the topic.	USD 55,714

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Outcome 3: Vulnerable ecosystems strengthened in response to climate	Number of coastal ecosystems maintained or improved to withstand conditions resulting	Output 5. Vulnerable ecosystem services and	5.1. Number. of natural resource assets created,	USD 397,000
change impacts, including	from climate variability and change (by type and scale)	strengthened in response to	withstand conditions	
		including variability.	variability and change (by type and scale).	
Outcome 4: Communities with improved and	No. and type of adaptation assets (tangible and intangible) created or	Output 6. Targeted individual and community livelihood	6.1.1.No. and type of adaptation assets (tangible	USD 143,214
diversified livelihoods.	strengthened in support of individual or community livelihood strategies	strategies strengthened in relation to climate change impacts, including variability.	and intangible) created or strengthened in support of individual or community	
	Type of income sources for		livelihood strategies	
	households/livelihood generated under climate change scenarios.		6.1.2. Type of income sources for households generated under climate change	
Outcome 5: Strengthened	Number of local and village	Output 2.1: Strengthened	2.1.1. No. of staff trained to	USD 179,571
governance, coordination	government staff with improved	capacity of national and sub- national centers and networks	respond to, and mitigate	
climate resilience of coastal ecosystem.	impacts.	to respond rapidly to extreme weather events.	events (by gender).	
	No. of targeted institutions with		2.1.2 No. of targeted	
	exposure to climate variability risks		capacity to minimize	
	(by type, sector and scale).		exposure to climate	
	No. of targeted institutions		sector and scale.	
	benefitting from the direct access			
	and enhanced direct access		2.2.1 No. of targeted	
			the direct access and	
			enhanced direct access modality.	

III.G. PROJECT BUDGET

	DESCRIPTION	TOTAL US) %	%	Q1	Q2	Q3	Q	4	Q5	Q6	Q7	Q8
COMPONENT	1. KNOWLEDGE MANAGEMENT	\$ 117.857	,14	13%									
OUTCOME	1 Increased generation and use of coastal vulnerability in decision-making to increase climate resilience	\$ 62.142	,86										
OUTPUT	1.1 Updated data & information on Coastal SES and Vulnerability Associated with Tropical Cyclones in Rote and Sabu islands	\$ 28.571	,43										
Activity	1.1.1 Conduct Action Research on coastal social-economic study and vulnerability associated with tropical cyclones in Rote and Sabu islands	\$ 28.571	,43		\$ 14.286	\$ 14.286							
OUTPUT	1.2 Climate Field Schools to share knowledge for implementing EbA	\$ 33.571	,43										
Activity	1.2.1 Develop Field School curriculum, modules and materials on EbA	\$ 2.142	,86			\$ 2.143							
	1.2.2 Establish Field Schools: coordination with local government, procurement of supporting equipment and facilities	\$ 14.285	,71			\$ 14.286							
	1.2.3 Conduct Tranining on EbA for local communities	\$ 17.142	,86			•	17.143	;					
OUTCOME	2 Increased awareness of the impacts of extreme weather and climate; and of adaptation measures	\$ 55.714	.29										
OUTPUT	2.1 Communication materials on EbA practices	\$ 15.714	,29										
Activity	2.1.1 Consultant (Graphic designer) to develop communication materials (infographics, poster, etc.)	\$ 8.571	,43		\$ 2.143		\$ 2.143			\$ 2.143		\$ 2.143	
	2.1.2 Communication material production (poster, leaflets, calender, etc.)	\$ 7.142	,86			\$ 1.786		\$ 1	.786		\$ 1.786		\$ 1.786
OUTPUT	2.2 Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.	\$ 22.857	,14										
Activity	2.2.1 Facilitate media trips to cover climate issues and EbA implementation in Rote and Sabu islands	\$ 22.857	,14					\$ 11	.429				\$ 11.429
OUTPUT	2.3 Output 2.2. Digital information platform on EbA practices	\$ 17.142	,86										
Activity	2.3.1 Develop concept and conduct assessment on users of EbA digital platform	\$ 3.571	,43			\$ 3.571							
	2.3.2 Develop EbA digital platform design	\$ 3.571	,43				\$ 3.571						
	2.3.3 Procure IT infrastructure for EbA digital platform	\$ 3.571	,43					\$ 3	3.571				
	2.3.4 Collect data and information for EbA digital platform	\$ 2.142	,86					\$ 2	2.143				
	2.3.5 Develop Digital Platfrom user guide	\$ 714	,29							\$ 714			
	2.3.6 Train users to use EbA digital platform	\$ 3.571	,43							\$ 3.571			
COMPONENT	2. Ecosystem Rehabilitation, Management and Sustainable Livelihood	\$ 540.214	,29	58%									
OUTCOME	3 Vulnerable ecosystems strengthened in response to climate change impacts, including variability	\$ 397.000	,00										
OUTPUT	3.1 Building With Nature ecosystem restoration sites	\$ 239.857	,14										
Activity	3.1.1 Technical Assistance EbA Specialist	\$ 42.857	,14		\$ 5.357	\$ 5.357	\$ 5.357	\$ 5	5.357	\$ 5.357	\$ 5.357	\$ 5.357	\$ 5.357
	3.1.2 Technical Assistance: Technical Facilitators	\$ 46.285	,71			\$ 7.714	\$ 7.714	\$ 7	7.714	\$ 7.714	\$ 7.714	\$ 7.714	
	3.1.3 Technical Assistance: GIS Specialist	\$ 19.285	,71			\$ 3.214	\$ 3.214	\$ 3	3.214	\$ 3.214	\$ 3.214	\$ 3.214	
	3.1.4 Facilitate Socialization/FPIC at village/sub-district level	\$ 14.285	,71			\$ 14.286							
	3.1.5 Develop technical design on BWN ecosystem restoration	\$ 2.857	,14				\$ 2.857	•					
	3.1.6 BWN ecosystem restoration unit	\$ 114.285	,71					\$ 57	7.143	\$ 57.143			
OUTPUT	3.2 Locally Managed Marine Area (LMMA) established	\$ 85.714	,29										
	3.2.1 Facilitate LMMA establishment	\$ 28.571	,43				\$ 14.286	5 \$ 14	1.286				
	3.2.2 Integrating LMMA with village planning	\$ 57.142	,86							\$ 28.571	\$ 28.571		
OUTPUT	3.3. Small infrastructure to support ecosystem monitoring and ecotourism	\$ 71.428	,57										
	3.3.1 Build Monitoring and Surveilance Tower	\$ 71.428	,57				35.714	L .			\$ 35.714		
OUTCOME	4 Communities with improved and diversified livelihoods	\$ 143.214	,29										
OUTPUT	4.1 Rapid local market assessments at the village level to identify site-specific livelihoods opportunities	\$ 17.857	,14										
Activity	4.1.1 Conduct rapid local market assessment at village level to identify site-specific livelhood opportunities	\$ 17.857	,14			\$ 17.857							
OUTPUT	4.2 Local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.	\$ 21.428	,57										
Activity	4.2.1 Train local communities on sustainable production practices, business management, value chain improvement, and accessing financial services	\$ 21.428	,57				\$ 21.429	,					
OUTPUT	4.3 Value chain viability assessments to quide the design of the livelihood business sub-grant/revolving fund	\$ 10.714	,29										
Activity	4.3.1 Conduct value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund	\$ 10.714	,29				\$ 10,714	ł					
OUTPUT	4.4 Diverse livelihood business model incubated.	\$ 39.642	.86										
Activity	4.4.1 Provide technical assitance/consultant: Livelihood specialist	\$ 26.785	.71			T	\$ 5357	\$ 5	357	\$ 5,357	\$ 5,357	\$ 5,357	
	4.4.2 Provide community organizers/facilitators to facilitate livelihood activities	\$ 12.857	14				\$ 2.57	\$ 2	2 571	\$ 2.571	\$ 2.571	\$ 2,571	
OUTPUT	4.5 Community sub-grants to support community-based climate resilience and livelihood business initiatives	\$ 53.571	.43				2.01			- 2.071		2.571	
Activity	4.5.1 Develop and implement community sub crafts mechanism	\$ 17.857	.14					\$ 17	857				
	4.5.2 Provide community subgrants	\$ 35.714	29					ψ 17	.001	\$ 35.714			1
L	noizer forde commany cabyrante	φ 00.71*	,			1	1		_	ψ 00.714			1

		DESCRIPTION	Т	OTAL USD	%	Q1	Q2	(23	Q4	4	Q5	Q6		Q7	Q8
COMPONENT	3. STRE	NGTHENING GOVERNANCE	\$	179.571,43	19%											
OUTCOME	5	Local and village government with improved capacity and finance to implement adaptation measures	\$	179.571,43												
OUTPUT	5.1	Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts	\$	67.142,86												<u> </u>
Activity	5.1.1	Provide technical assistance to prepare draft of RAD-API	\$	12.857,14				\$	4.286	\$ 4	.286	\$ 4.286				(
Activity	5.1.2	Facilitate workshops to prepare Adaptation Action Plans for Rote Ndao and Sabu Raijua Districts	\$	22.857,14				\$ 2	22.857							Í
	5.1.3	Facilitate stakeholder consultation workshops on Draft of Adaptation Action for Rote Ndao and Sabu Raijua Districts	\$	14.285,71						\$ 14	.286					(
	5.1.4	Facilitate workshop on integration of Adaptation Action Plans with SEA/RPJMD of Rote Ndao and Sabu Raijua Districts	\$	17.142,86								\$ 17.143				Í
OUTPUT	5.2	Strengthened DKPPNTT as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issue	\$	34.285,71												
Activity	5.2.1	Develop policy brief on ICM approach to increase climate resilience in Savu Seascape	\$	8.571,43								\$ 8.571				(
	5.2.2	Facilitate Workshop to disseminate Policy Brief on ICM approach to increase climate resilience in Savu Seascape	\$	8.571,43									\$ 8.57	71		(
	5.2.3	Facilitate Multi Stakeholder Forum (DKPPNTT) Workshop to roadmap for integrating the policy brief recommendation	\$	17.142,86											0.574	0 0.574
		with coastal & marine spatial/development plans												\$	8.571	\$ 8.571
	5.3	Climate resilience funding scheme for coastal and small islands of Rote and Sabu through Ecological Fiscal Transfer														
OUTPUT		(EFT) scheme	\$	31.714,29												1
Activity	5.3.1	Provide technical assistance to prepare EFT scheme document	\$	10.285,71								\$ 5.143	\$ 5.14	13		
	5.3.2	Facilitate workshop to define EFT scheme	\$	7.142,86									\$ 7.14	43		(
	5.3.3	Faciliate stakeholder consultation workshop on EFT scheme	\$	8.571,43										\$	8.571	
	5.3.4	Facilitate workshop to institutionalize and prepare M&E plan for EFT scheme	\$	5.714,29												\$ 5.714
OUTPUT	5.4	Coastal ecosystem restored/ managed that are monitored and registered in the SRN.	\$	46.428,57												
Activity	5.4.1	Provide equipment for POKMASWAS	\$	21.428,57				\$ 2	21.429							í
	5.4.2	Train POKMASWAS	\$	14.285,71						\$ 14	.286					1
	5.4.3	Facilitate village registration in SRN	\$	10.714,29										\$	10.714	
B. PROJECT E	XECUTI	ON COST	\$	87.142,86	9,4%											
	PE 1	Project Manager	\$	25.714,29		\$ 3.214	\$ 3.214	\$	3.214	\$ 3	.214	\$ 3.214	\$ 3.2	4 \$	3.214	\$ 3.214
	PE 2	Finance & Admin Officer	\$	10.285,71		\$ 1.286	\$ 1.286	\$	1.286	\$ 1	.286	\$ 1.286	\$ 1.28	36 \$	1.286	\$ 1.286
	PE 3	Project Financial Reports	\$	857,14		\$ 107	\$ 107	\$	107	\$	107	\$ 107	\$ 10)7 \$	107	\$ 107
	PE 4	Project Evaluation Report	\$	714,29												\$ 714
	PE 5	M&E Mission	\$	10.714,29			\$ 3.571			\$ 3	.571		\$ 3.57	71		i
	PE 6	Audit Report	\$	10.000,00						\$ 5	.000					\$ 5.000
	PE 7	Motorcycle rental for District Coordinator and Community Organizers	\$	1.428,57		\$ 714						\$ 714				1
	PE 8	Office Rental and Operations (intenet, electricity) in Rote Ndao and Sabu Raijua	\$	27.428,57		\$ 13.714						\$ 13.714				1
C. IMPLEMENTING ENTITIY FEE		\$	74.928,57	8,1%												
	IE 1	Project identification and development	\$	3.500,00		\$ 3.500										
	IE.2	Project implementation and supervision	\$	50.000,00			\$ 16.667			\$ 16	.667		\$ 16.66	67		L
	IE 3	Evaluation	\$	21.428,57												\$ 21.429
TOTAL			\$	999.714,29		\$ 44.321	\$ 109.345	\$ 18	85.250	\$ 195	.131	\$ 206.250	\$ 135.9	38 \$	58.821	\$ 64.607

III.H. DISBURSEMENT SCHEDULE

Table Disbursement Schedule.

Payment	Payment Milestones		Amount
Termin 1	Upon sign of agreement	1st month	\$ 153.666,67
Termin 2	Upon Progres & Financial Reports Q1-Q2 are accepted	7th month	\$ 380.380,95
Termin 3	Upon Progres & Financial Reports Q3-Q4 are accepted	13th month	\$ 342.238,10
Termin 4	Upon Progress & Financial Reports Q5Q6 are accepted	18th month	\$ 123.428,57
		TOTAL	\$ 999.714,29

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

IV. A. Record of endorsement on behalf of the government

Below is the record of endorsement on behalf of the government obtained during the preparation of this concept of the Project:

Name and Position	Date of Endorsement
Imam Fauzi, S.S. M.Eng. Head of The Agency of the National Marine Conservation (Balai Konservasi Kawasan Perairan Nasional/BKKPN) Kupang, The Ministry of Marine and Fishery.	July 4, 2022.
Johanna E. Lisapaly, S.H., M.Si. Head of Provincial Development Research and Planning (BAPPELITBANDA) NTT Province.	July 7, 2022.
Drs. Haludin Abdullah, M.Si. Head of District Development Planning (BAPPEDA), Sabu Raijua District	July 5, 2022
Jermi. M. Hanging, PhD. Head of Provincial Development Research and Planning Rote Ndao District .	July 12, 2022

Table. Record of Endorsement on behalf of the Government.

Copies of endorsement letter on behalf of the government are provided in Annex 6

IV.B. Implementing Entity certification

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (President Decree No. 16/2015; P.13/MENLHK/Setjen/OTL.0/1/2016; P.33/MENLHK/Setjen/Kum.1/3/2016; Indonesia Intended Nationally Determined Contribution/INDC; COP 21; Paris Agreement signed by Government of Indonesia; Book and Map of Information System of Vulnerability Index Data (SIDIK); Permen-KP No. 2 year 2013; Climate Change Adaptation National Action Plan) and subject to the approval by the Adaptation Fund Board, <u>commit to implementing the project/programme in compliance with</u> the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.								
Laode Muhamad Syarif Executive Director of Partnership for Governance Reform in Ir Implementing Entity Coordinator	ndonesia (Kemitraan)							
Date:	Tel. and email:							
Project Contact Person:								
Tel. And Email:								

LIST OF ANNEXES

.

https://drive.google.com/drive/folders/1gJ8Oq7xIE0InfdgOLoD8PmUMgnMeyybv)

- 1. Map of Project Location.
- 2. Environmental and Social Management Plan (ESMP).
- 3. Social Gender Inclusion Plan.
- 4. Audit Report YAPEKA 2020.
- 5. Cover Note on Audit Report YAPEKA 2021.
- 6. Endorsement letter on behalf of the Government.
- 7. YAPEKA Notarial Deed Registered in the Ministry of Law and Human Rights



MINISTRY OF ENVIRONMENT AND FORESTRY DIRECTORATE GENERAL OF CLIMATE CHANGE

Manggala Wanabakti Building Block VII 12th Floor, Jalan Gatot Subroto – Senayan, Jakarta 10270 Phone +62 21 5730144 Fax. : +62 21 5720194

Website : http://ditjenppi.menlhk.go.id

email:tusetditppi@gmail.com;

Jakarta, S August 2022

 Our Ref.
 : J. 282 / PP1 / AP1 / PP1, 0/8/2082

 Attachments
 :

 Subject
 : Letter of endorsement

To: The Adaptation Fund Board c/o Global Environment Facility Mail stop: N 7-700 1818 H Street NW Washington DC 20433, USA

Dear Board Member,

Directorate General of Climate Change Ministry of Environment and Forestry as the National Designated Authority of Adaptation Fund in Indonesia through *Kemitraan* – Partnership for Governance Reform as the National Implementing Entity, have received and appraised 37 incoming concept notes.

After a thorough assessment process of the incoming concept notes, we come to the decision that the following 10 (ten) concept notes from 10 (ten) different organizations have met and are in accordance with the national priorities in the implementation of adaptation programs and activities to increase adaptive capacity and to reduce the impact and risks of climate change in vulnerable regions in Indonesia:

- 1. Yapeka; Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea
- 2. TLKM; Sustainable Landscape Governance; Towards Climate Resilience of Community in Tempe Lake Ecosystem
- 3. KAPASITAS; Adaptation to climate change through integrated forest management and sericulture business to achieve ecosystem resilience to food security for the Lake Tempe Catchment Area Community
- 4. Garis Biru; Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province
- 5. Sajogyo Institute; Collaboration for the Conservation of Cimandiri WatershedLandscapes through the Potential of Silvopasture and Community Agroforestry
- 6. KOAKSI; Building Climate Resilient District in Indonesia: Case of Sigi District
- 7. KEMITRAAN; Village Based Coastal Adaptation and Resillience in Lombok Province of West Nusa Tenggara
- 8. HUMA; Change Climate and Adaptation in the Buffer Area of the New National Capital
- 9. Mitra Aksi; Increasing the resilience of smallholders from climate impacts through Smart Agriculture based on Livelihood Diversification in Indonesia
- 10. KUAT (KARSA); Strengthening Community Adaptation toward Climate Change trough ProKlim in Ecoregion Neck of Sulawesi Island





With this consideration, and in my capacity as the National Designated Authority of Adaptation Fund in Indonesia, I recommend the above proposals be granted support from the Adaptation Fund Board. All those programs will be executed by each of the submitting entities under the supervision of *Kemitraan* – Partnership for Governance Reform.

Sincerely ours,

Laksmi Dhewanthi Director General of Climate Change Ministry of Environment and Forestry as Indonesia Designated Authority of Adaptation Fund

Copy to: Kemitraan (Partnership Governance Reform in Indonesia)





Certificate No. QSC 01469



Project Formulation Grant (PFG)

Submission Date: August 8, 2022

Adaptation Fund Project ID:							
Country/ies:	Indonesia						
Title of Project/Programme:	Ecosystem-based Adaptation to Support Climate Resilience in Coastal						
and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea.							
Type of IE (NIE/MIE):	NIE						
Implementing Entity:	Kemitraan – The Partnership for Governance Reform						
Executing Entity/ies:	YAPEKA Consortium						

A. Project Preparation Timeframe

Start date of PFG	1 September 2022
Completion date of PFG	30 November 2022

B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

List of Proposed Project Preparation Activities	Output of the PFG Activities	USD Amount
Data collection for baseline and analysis for each component	Collected data required to set up the basis for argument formulation and programme justification in the proposal	\$ 13.793
Travel meetings required for data collection and consultation	Confirmation of assumptions and situation on the ground before programme document finalized	\$ 12.931
Expert hiring for proposal writing	Assist Kemitraan in writing and use of collected baseline data to justify programme and enhance the proposal	\$ 19.655
Focus Group Discussion with Multistakeholders	To receive feedback and input on the Goal, Objective, Outcome and Output of the proposal which to be submitted to AF, so as to ensure it is in line with the national programmes and strategies of climate change adaptation	\$ 3.621
Total Project Formulation Grant		\$ 50.000

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing					
Entity	Signature	Date	Project	Telephone	Email Address
Coordinator,	_	(Month,	Contact		
IE Name		day, year)	Person		
Laode M.		08 August	Dewi	+6221-	dewi.rizki@kemitraan.or.id
Syarif,	1 2	2022	Rizki	22780580	
KEMITRAAN					