ADAPTATION FUND

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 996,357**.

I.A. PROJECT BACKGROUND AND CONTEXT

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 units[1]

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.

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

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.

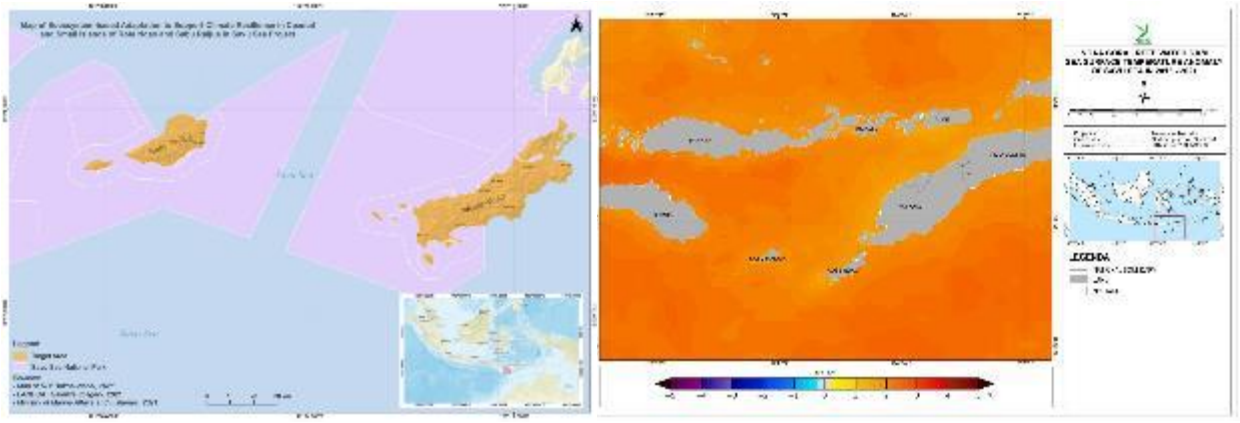

Figure 01 (left) Location in Rote and Sabu Island in Savu Seascape. Figure 02 (right). Distribution of temperature anomalies at Savu Sea, around Rote and Sabu, NTT (NOAA SSTA data 2015-2021, further analyzed and processed by YAPEKA).

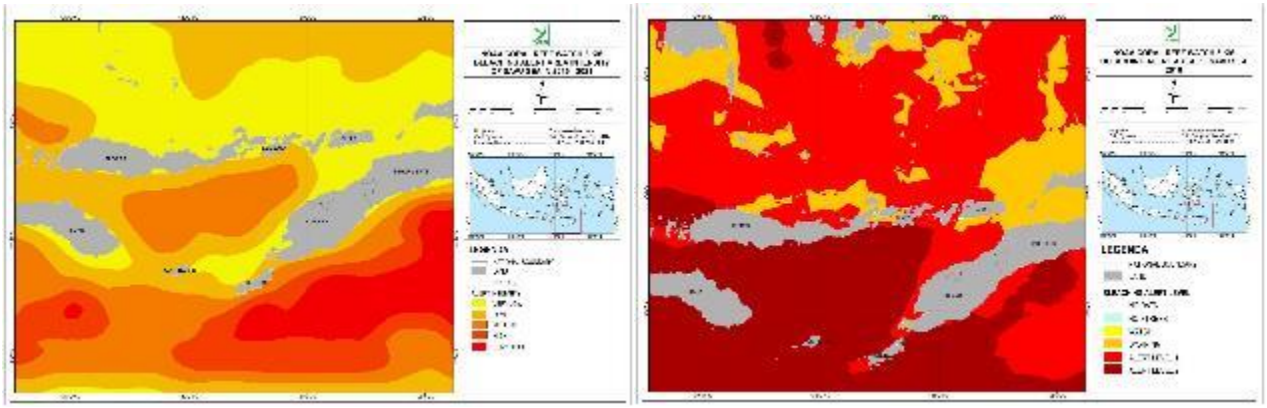

Figure 03 (left) Cumulative distribution and intensity of Coral Bleaching Alert (NOAA Bleaching Alert data 2015-2021, further analysed by YAPEKA); and Figure 04 (right) Coral Bleaching Alert 2106 during strong El Nino event (Data: NOAA, processed by YAPEKA)

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

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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.

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 hydro-meteorology and marine chemistry, and increase vulnerability of Seagrass ecosystems.

On the atmospheric side, higher sea surface temperature also means more evaporation. Increasing temperature will alter rainfall patterns and might supply more heat and water vapour to potentially form tropical cyclone cells. The southern region of Indonesia is one of the places where tropical cyclones grow in the southern hemisphere. During 1983-2017 there were 51 tropical cyclones occurring in the region. 9 tropical cyclones in 35 years back that grow or move closer to the Indonesian archipelago in latitude 0°-10°S (Mulyana *et.al.*, 2018)[3]. Tropical cyclones are dangerous because they can produce extreme winds, heavy rainfall with flooding and damaging storm surge that can cause inundation of low-lying coastal areas.

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 damages[4]. 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)[5]. 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 Seroja[6].

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 reduction[7] 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 status[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

[3] Erwin Mulyana , M. Bayu Rizky Prayoga , Ardila Yananto , Samba Wirahma , Edvin Aldrian , Budi Harsoyo , Tri Handoko Seto , and Yaya Sunarya. 2018. Tropical cyclones characteristic in southern Indonesia and the impact on extreme rainfall events. MATEC Web of Conferences **229**, 02007.

[4] "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.

[5] 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

[6] Data from the district government of Rote Ndao berikut-data-sementara-hasil-rekapan-akibat-badai-seroja.php.

[7] Charles W Schmidt. 2019. The Future of Stunting: Potential Scenario of Climate Change. EHP5049

[8] prevalensi-stunting-di-atas-30-persen-15-kabupaten-di-ntt-berkategori-merah.

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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

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 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)[9] in Savu Seascape. Furthermore, Bappenas in 2021 also identified the two islands as top priority for climate resilience actions[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.

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.

Climate vulnerability of the coastal areas of Rote and Sabu islands in Savu Sea depends on adaptive capacity and sensitivity of the socio-ecological system[11]. 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,

[9] Ditjen PPI KLHK, 2015. Sistem Informasi Data Indeks Kerentanan.

[10] Bappenas, 2021. Daftar Lokasi & Aksi Ketahanan Iklim.

[11] 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.

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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:

1. **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 detailed data as well as limited modelling analysis methods[12]. 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-to-date 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.

   Although Early Warning System has been initiated in NTT province by the agency of meteorology and geophysics (BMKG) and the local agency of disaster mitigation (BPBD), there is still limited ability to access, digest and use climate and weather technical information by vulnerable groups (small scale fishermen, coastal communities) in remote Rote and Sabu islands coastal areas. This is reflected by limited preparedness and responses by small-scale fishers/coastal communities in making decisions and acting accordingly to respond to climate/weather variabilities and threats. As a result, livelihood activities are severely disrupted and can be life-threatening.

2. **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 islands[13]. 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.

3. **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.

4. **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

[12] Ditjen PPI KLHK. 2021. Profil Kerentanan Perubahan Iklim Kawasan Segitiga Karang Indonesia.

[13] BKKPN Kupang. 2021. Coral Reef Condition Survey in TNP Laut Sawu.

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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.

5. **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. 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.

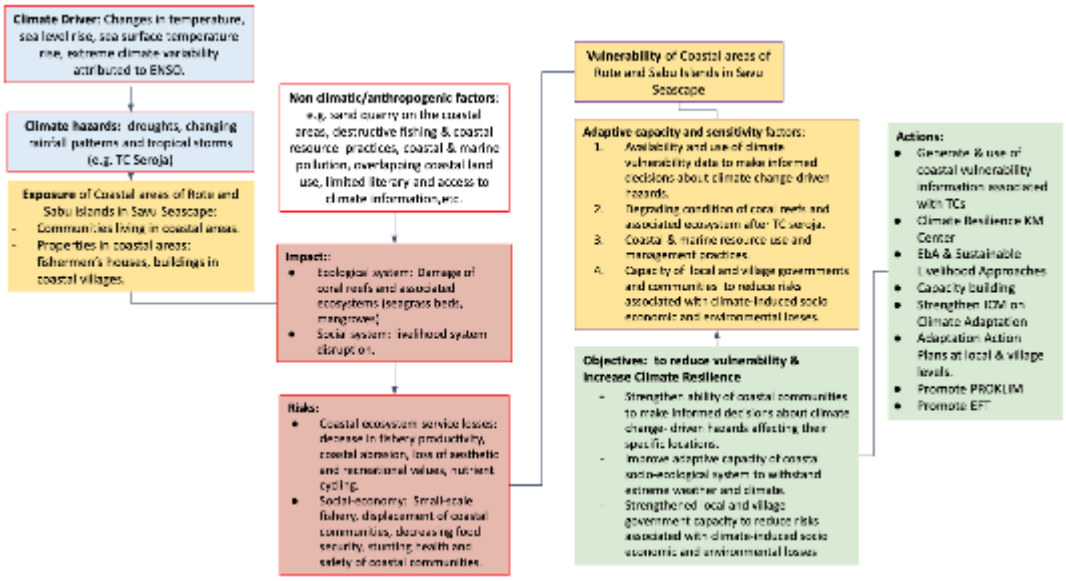

Figure 05. Climate-Impact Chain in Rote and Sabu islands in Savu Seascape.

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I.B. PROJECT OBJECTIVES

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.

Objectives of this project are:

1. **Strengthened ability of coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations**. 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 local and village government capacity to reduce risks associated with climate-induced socio-economic and environmental losses**. This objective is aligned with the AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses.

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 :

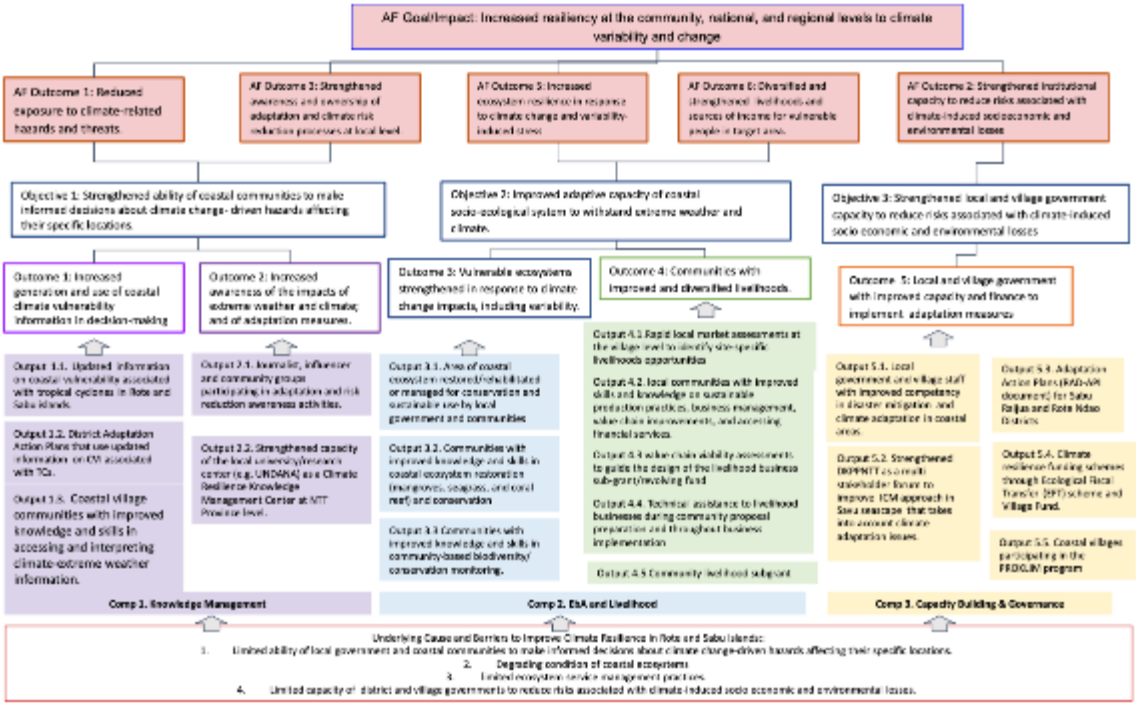

Figure 1. The Theory of Change (TOC)

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I.C. PROJECT COMPONENTS AND FINANCING

Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Knowledge Management .	• Output 1.1. Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands. • Output 1.2. District Adaptation Action Plans that use updated CVI data. • Output 1.3. Coastal village communities with improved knowledge and skills in accessing and interpreting climate-extreme weather information and in organizing disaster preparedness and response plans.	Outcome 1: Increased generation and use of coastal climate vulnerability in decision-making	USD 60,000
	• Output 2.1. Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities. • Output 2.2. Strengthened capacity of the local university/research centre (e.g. UNDANA) as a Climate Resilience Knowledge Management Centre at NTT Province level.	Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures	USD 104,500
2. Ecosystem-based Adaptation and Livelihood.	• Output 3.1. Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities. • Output 3.2. Communities with improved knowledge and skills in coastal ecosystem restoration (mangroves, seagrass, and coral reef) and conservation. • Output 3.3 Communities with improved knowledge and skills in community-based biodiversity/ conservation monitoring.	Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability.	USD 177,571
	• 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 118,929

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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 livelihood subgrant.		
3. Capacity Building and Governance	• Output 5.1. Assessment on capacity of local government in implementing the national Climate Resilience Policy. • Output 5.2. Local government staff with improved knowledge and skills to conduct climate budget tagging for climate resilience • Output 5.3. Local government and village staff with improved competency in disaster mitigation and climate adaptation in coastal areas. • Output 5.4. Strengthened DKPP NTT as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issues. • Output 5.5. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts. • Output 5.6. Climate resilience funding through Ecological Fiscal Transfer (EFT) scheme. • Output 5.7. Coastal villages participating in the PROKLIM. • Output 5.8. Guidelines for Village Facilitators to implement climate adaptation activities at village level	Outcome 5: Local and village government with improved capacity and finance to implement adaptation measures	USD 370,286
5. Project Execution cost			USD 87,143
6. Total Project/Programme Cost			USD 918,429
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			USD 77,929
Amount of Financing Requested			**USD 996,357**

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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.

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. 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.**

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 1.1: Risk and vulnerability assessments conducted and updated.

Combined effects of tropical cyclones (such as strong wind, intense rainfall and extreme waves and coastal inundation) as well as other variables to determine coastal vulnerability such as geomorphology, shoreline change rates, coastal slope, relative sea level rate, mean significant wave height, and mean tidal range will determine the coastal vulnerability index (CVI)[14]. The project will conduct an action research to update the coastal vulnerability in association with tropical cyclones and will use the updated coastal vulnerability data in preparing the district adaptation action plans (RAD-API) particularly in identifying climate vulnerability and risk.

The project will also improve the existing Early Warning System at the local level by improving the pipeline

[14] Bishnupriya Sahoo, Prasad K. Bhaskaran. 2018. Coastal Vulnerability associated with Tropical Cyclones – a Case study for the Odisha Coast. National Symposium on Tropical Meteorology: Climate Change and Coastal Vulnerability.

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of information, strengthening preparedness and response plans at community level, particularly the ability of vulnerable groups (small-scale fishermen, coastal communities). Capacity buildings and facilitation will be given to coastal communities, enabling them to access, digest and use climate and weather information, by providing training on climate-extreme weather information access and interpretation.

Project outputs of these activities are:

- Output 1.1. Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands.
- Output 1.2. District Adaptation Action Plans that use updated coastal vulnerability data.
- Output 1.3. Coastal village communities with improved knowledge and skills in accessing and interpreting climate-extreme weather information and organizing preparedness and response plans.

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 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities and Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning.

The project will develop awareness/communication materials on the impact of extreme weather and climate and EbA practices targeted for coastal communities including young generations. The project will also facilitate journalists and young influencers participating in project activities and media trips to highlight EbA and sustainable livelihood practices. Project output of this activity is Output 2.1: Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.

This component will also focus on strengthening local university capacity in climate resilience knowledge management to ensure the sustainability of the creation and use of climate resilience knowledge, especially in the NTT province. To do this, the project will conduct coordination with a local university (UNDANA) to discuss possibilities to develop a climate resilience knowledge management center. The project will also facilitate workshops to discuss strategies to develop the climate resilience knowledge management center. The workshop will also involve government agencies that can support and will use the knowledge, such as the agency for meteorology, climatology and geophysics (BMKG) and the local agency for disaster mitigation (BPBD). The CTSS-IPB will also be mentoring the development of the knowledge management center. The project will facilitate regular online seminars and scientific and popular publications of climate change research. Project output of this activity is : Output 2.2. Strengthened capacity of the local university/research center (e.g. UNDANA) as a Climate Resilience Knowledge Management Center at NTT Province level.

Component 2. Ecosystem-based Adaptation and Livelihood

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. Ecosystem-based adaptation (EbA) is a **n**ature-based method for climate change adaptation, that aims to increase the resilience of coastal populations by strengthening and maintaining natural systems and provision of ecosystem goods and services. EbA can also provide additional benefits for health, food security, biodiversity conservation and sustainable economic growth[15]; while the sustainable livelihoods approach facilitates the identification of practical priorities for actions that are based on the views and interests of those concerned and makes the connection between people and the overall enabling environment that influences the outcomes of livelihood strategies. It brings attention to bear on the inherent potential of people in terms of their skills, social networks, access to physical and financial

[15] USAID. 2018. Ecosystem-based Adaptation and Coastal Population.

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resources, and ability to influence core institutions[16].

Two project outcomes are expected to be achieved under this component:

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.

The project will conduct coastal ecosystem restoration/rehabilitation activities as an EbA approach, coral reefs, mangrove and seagrass beds as these ecosystems can provide protection of coastal communities from high and strong waves during storm surges. Socio-ecological approach will be adopted in implementing coastal ecosystem restoration activities, which take into account principles that biophysical conditions should be appropriate as well as socio-economic conditions that allow coastal ecosystem recovery.

Mangrove restoration/rehabilitation will be based on the baseline conditions of the mangrove area. Most of the mangrove rehabilitation will involve direct planting however the six global best practice techniques to be integrated into the project include (1) mangrove stress identification and removal, (2) natural revegetation, (3) direct planting without hydrological repair, (4) minor hydrological repair with planting or human-assisted natural revegetation, (5) major hydrological repair (use of heavy machinery) with planting or human-assisted natural revegetation, and (6) experimental erosion control.

Coral reef rehabilitation will be based on preliminary assessments of coral rehabilitation methods and locations. Either the rehabilitation requires coral transplantation or ensures natural regeneration of corals. Seagrass rehabilitation will use a semi-natural method (by vegetative transplantation). The project will introduce appropriate hybrid infrastructure concepts that combine conservation and/or restoration of ecosystems with the selective use of conventional engineering approaches to provide people with solutions that deliver climate change resilience and adaptation benefits. Among the features of the hybrid infrastructures are optimization of local materials and traditional knowledge.

Prior to restoration activities, the project will facilitate a workshop with the district government and BKKPN Kupang, and other stakeholders develop criteria and select locations/villages to implement restoration activities. Updated data on coastal vulnerability in association with TCs generated in this project will be used in selecting the locations/villages for restoration, in addition to other criteria (such as local government priorities, the existence of community/traditional institutions to support the ecosystem restoration). Field surveys will also be conducted to assess ecosystem restoration needs and develop design and methods for restoration activities. The survey will also identify existing traditional natural resource management practices such as *Hoholok/Papadak*.

The project will also train local communities including existing local community groups such as POKDARWIS, KOMPAK and POKMASWAS on ecosystem restoration techniques (such as mangrove nursery and planting, coral transplantation) and management of locally managed marine areas (LMMA). The project will also train, particularly the POKMASWAS (community groups for biodiversity monitoring and surveillance) on biodiversity monitoring and surveillance methods. In addition, the project will provide biodiversity monitoring and surveillance essential equipment (e.g. binoculars, snorkeling/diving equipment, drones, measuring tape meters, coastal ecosystem guidebooks, etc.). Monitoring methods will be focused on citizen science methods that are more user-friendly while still maintaining scientific qualities.

Outputs of these activities are as follows:

[16] ADB. 2008. Sustainable Livelihood.

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- Output 3.1. Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities.
- Output 3.2. Communities with improved knowledge and skills in coastal ecosystem restoration (mangroves, seagrass, and coral reef) and conservation management.
- Output 3.3 Communities with improved knowledge and skills in community-based biodiversity/ conservation monitoring.

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.

The project will support the development of livelihoods and sustainable enterprises in target 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.

To deliver the outcome, the project will conduct: 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) technical assistance to livelihood businesses during community proposal preparation and throughout business implementation, and 5) provision of livelihood business sub-grants to community groups (based on the size and maturity of the business). The business sub-grant facility is a market-driven, selective approach through which the project will allocate resources to sustainable business ideas with the most potential. The activities will take into account gender-transformative approaches[17] i.e. gender inclusive, gender awareness and gender strategy, and will involve relevant district government agencies to ensure local government support and sustainability.

Potential livelihood in Rote and Sabu islands to be strengthened or diversified include but not limited to: community-based ecotourism, marine biopharmacology products, aquaculture, capture fishery, seaweed farming, salt farming, the Asian Palmyra Palm (Lontar)-based products and traditional coastal resource use.

Project outputs of the above livelihood activities will include:

- 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.
- Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation.
- Output 4.4. Provision of livelihood business sub grants to community groups.

[17] Lawless, S., Doyle, K., Cohen, P.J., Eiksson, J., Schwarz, A.M., Teioli, H., Vavekaramui, A., Wickham, E., Masu, R., Panda, R., and C. McDougall. 2017. Considering gender: Practical guidance for rural development initiatives in Solomon Islands. Penang, Malaysia: WorldFish. Program Brief: 2017–22

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Component 3. Capacity Building and Governance.

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**.

Project Outcome in this component is:

Outcome 5: Local and village government with improved capacity and finance to implement adaptation measures, 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.

To achieve the outcome, the project will strengthen the capacity of local and village government human resources. This will be done through several activities as follows:

1. Assessment on capacity of local government in implementing the national Climate Resilience Policy, through workshop with local government stakeholders at district and provincial levels; and through a case study on climate budgeting to increase climate resilience in coastal and small islands of Rote and Sabu. Output of this activity: Output 5.1. Assessment Report on the Local Capacity to Increase |Climate Resilience in Rote and Sabu islands.

2. Conduct training for local government staff at provincial and district levels on climate budgeting system to increase local government's capacity in monitoring climate budget for climate resilience. Output of this activity: Output 5.2. government staff with improved knowledge and skills to conduct climate budget tagging for climate resilience.

3. Provide training and certification on disaster mitigation and climate adaptation in coastal areas[18]. The project will coordinate the certification process with the agency for certification (LSP) under the Ministry of Marine and Fishery. Output of this activity is: Output 5.3. Number of Local government and village staff with improved competency in disaster mitigation and climate adaptation in coastal areas.

4. 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). Integrated Coastal Management (ICM) is an acknowledged process to deal with current and long-term coastal challenges, including climate change. ICM promotes a strategic (long-term viewing), collaborative, integrated and adaptive approach to coastal zone planning and management in order to contribute to the sustainable development of coastal areas. 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. The output of this activity is: Output 5.4. Strengthened ICM approach in Savu seascape that takes into account climate resilience issues.

[18] The certification will be based on the Indonesian National Work Competency Standard (SKKNI) standard on disaster mitigation and climate adaptation in coastal areas (SK Kemenaker No. 454, 2015).

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5. Facilitate a series of workshops to prepare Adaptation Action Plans (RAD-API document)[19] for Sabu Raijua and Rote Ndao Districts. Currently, both Rote Ndao and Sabu Raijua do not have updated adaptation action plans and climate adaptation issues are not integrated in the strategic environmental assessment (SEA) and in the district development plans. Workshops will involve a multi stakeholder forum at district level, including relevant local government agencies, universities, private sectors, NGOs and journalists and will discuss scoping the area/sector, climate risk and vulnerability, adaptation action options, priorities and integration with the local development plan. The workshops will also take into account the result of project activity regarding the updated coastal vulnerability associated with tropical cyclones. The main output of this activity is: Output 5.5. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.

6. Develop Ecological Fiscal Transfer (EFT) scheme to increase climate resilience measures in Rote and Sabu islands. 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 No. 43, 2014 about implementation of Law No. 6 2014 on Village) and existing ecological regulation framework. The project will provide technical assistance in drafting the EFT schemes for Rote Ndao and Sabu Raijua Districts and will facilitate workshops to focus on defining the EFT scheme, particularly to identify and formulate ecological indicators that will be used in the EFT scheme, and simulating the EFT scheme. The workshops will be participated by the local development planning agency (BAPPELITBANGDA), the local agency for environment (DLH), the local agency for marine and fisher (DKP), the local agency for Financial Management (BPKKD), and other relevant local government agencies at district and provincial levels. These activities will produce the main output: Output 5.6. Climate resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.

7. The project will also strengthen village government on climate resilience, by integrating the participating villages with PROKILIM 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 as well as to provide recognition of climate change adaptation and mitigation efforts that have been carried out which can improve welfare at the local level according to regional conditions. The project will support the government's target in achieving 20,000 villages participating in the PROKLIM program in 2024. The project will follow the government guideline in implementing the PROKLIM program (Directorate General for Climate Change Regulation/Perdijen PP No.1,2017). The main output of this activity is: Output 5.7. Coastal Villages participating in the government's PROKLIM Program.

8. Develop Guidelines for Village Facilitators to implement climate adaptation activities at village level. The guidelines will be delivered to village facilitators through training activity on how to use the guidelines. It is expected that the guidelines will mainstream climate resilience measures including

[19] The Ministry of Environment and Forestry Regulation No. P33, 2016 on a Guideline to Prepare Climate Change Adaptation Actions

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the ecosystem-based adaptation activities to be funded by the Village Fund. Output of this activity: Output 5.8. Guidelines for Village Facilitators to implement climate adaptation activities at village level.

II.B. ECONOMIC, SOCIAL AND ENVIRONMENTAL BENEFITS

Impact Potential

The project will impact *ca*. 2000 beneficiaries. This will be achieved through a number of people with improved knowledge and skills through training activities, workshops and participating communities in implementing EbA and livelihood activities. Broader beneficiaries can be achieved through the knowledge sharing, awareness activities, and implementation of adaptation action plans.

Results of the project will contribute to the Indonesia Nationally Determined Contribution (NDC) particularly in achieving 1) resilience of ecosystems and landscape especially on protection of coastal areas; and 2) resilience of social and livelihood system especially in identification of highly vulnerable areas in spatial planning, improving adaptive capacity, and improving community participation in planning.

Paradigm Shift Potential

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

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.

Economic and social co-benefits

- The project will potentially create 300 new jobs (direct, indirect and induced employment) from sustainable livelihood activities as well as from coastal ecosystem restoration and conservation activities.
- Sustainable livelihood activities are expected to contribute to total household income between 10-40%.
- The project will 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.
- Improved knowledge and practices in climate adaptation towards extreme weather and climate.

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- Improved coordination among stakeholders in implementing climate adaptation measures including EbA and in creating climate funding schemes through Ecological Fiscal Transfer and village fund.

Environmental co-benefits

The project will implement Ecosystem-based adaptation (EbA), which is a nature-based method for climate change adaptation that can increase the resilience of coastal populations by strengthening and maintaining natural systems and the goods and services they provide. Below are some co-benefits of EbA approach in this project:

- Coastal ecosystems (mangrove, coral reef, seagrass) restoration and conservation can prevent storm surge and coastal flooding. Healthy ecosystems like mangroves and coral reefs can provide resilience to floods, storm surges, and increased sea levels by serving as physical buffers that retain excess water, dissipate wave energy, and stabilize shorelines (Baig et al. 2015).
- Ecosystem service-based livelihood such as sustainable small-scale fisheries, marine biopharmacology and ecotourism will ensure natural existence of nature, biodiversity and landscape.
- Community-based monitoring on natural resources will prevent anthropogenic threats to natural ecosystems. The project will strengthen the capacity of community groups such as POKMASWAS in monitoring natural resources.
- Ecological Fiscal Transfer scheme will support funding for 'green' activities including coastal and small island ecosystem management.

Gender and inclusion sensitive development impacts

- The project will increase the knowledge and capacity of vulnerable coastal communities including small-scale fishermen and women in climate adaptation by involving these vulnerable groups in training, development and implementation of ecosystem-based adaptation and ecosystem-service based livelihood.
- The project will improve recognition of vulnerable communities and women's role in climate adaptation practices. The project will document meaningful participation and lessons learned of vulnerable communities and women in climate adaptation practices including ecosystem restoration and sustainable livelihood practices.
- The project will improve participation of vulnerable communities and women in managing natural resources and in the decision making process. The project will address one of the gender issues that most structures in government and society are dominated by men leading to a lack of participation in capacity building activities and in the coastal planning management process.

Risks Management and Negative Impact Mitigation

Most of the project activities are about knowledge management, capacity building and implementation of ecosystem-based adaptation and livelihood that are unlikely to have adverse environmental and social impacts. However, to mitigate any risks and negative impact, the project will:

1. Conduct an environmental and social screening process. The screening will be conducted against the 15 Adaptation Fund Environmental and Social Principles.
2. Prepare environmental and social safeguard instruments, namely an Environmental and Social Management Plan (ESMP), Social-Gender Inclusion Plan (SGIP), Grievance Mechanism, Stakeholder Engagement Plan.
3. Conduct supervision monitoring and evaluation missions.

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II. C. COST EFFECTIVENESS

Cost effectiveness of the Project will be calculated using the Economic Rates of Return (ERRs) method[20] that will provide a single metric showing how the Project's economic benefits compare to its costs. ERR will provide a convenient metric, produced from a cost benefit analysis comparing the economic costs and benefits of a Project and/or policy measure. Cost benefit analyses, the costs of a Project include all necessary economic costs—financial expenses covered by Adaptation Fund and other parties, as well as opportunity costs of non-financial resources expended. Benefits include the increased income of a country's population or the increased value-added generated by producers (firms and households) that can be attributed to the proposed Project. Value-added is defined as the value of gross production (or sales) minus the cost of intermediate inputs produced (and purchased from) outside the firm.

Projects target ERR should pass a 10 percent hurdle rate with a 10-year scenario calculation after the Project ends to be accountable for support by the Adaptation Fund. The ERR will be calculated upon the preparation of the full proposal. ERR spreadsheets will calculate each of the Project's interventions and will include: the Project description, including its economic rationale; the expected impacts, including detailed cost and benefit estimates; the key assumptions and study the effects of those assumptions into the Project's returns and cost-benefit analysis. ERR calculation considers two scenarios: (a) the expected outcome with the Project; and (b) the expected outcome without the Project.

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

- **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.

- **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.

- **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.

- **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

[20] MCC Economic Rate of Return. err

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vulnerability index, NTT province has a relatively high vulnerable status, including Rote Ndao and Sabu Raijua districts.

- **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.

- **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).

- **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.

- **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.

- **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.

- **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:

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.

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- **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.

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.

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.

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).

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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).

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.

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

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 fill the gap of the previous conservation and climate change projects in NTT Province, especially in Savu Seascape.

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.

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.

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

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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

Knowledge management is one of the components in this project that will ensure knowledge management cycle (knowledge generation – organize/processing – share – use) is sustainable. Knowledge generation and processing will be conducted through research, assessment and collecting existing knowledge and lessons learned and will adopt Participatory Action Research (PAR) and Transdisciplinary (TD) approaches. These two approaches will also ensure participation of vulnerable communities, scientists, practitioners and decision-makers in the knowledge management process. The project will also share knowledge through communication materials using digital, social media and also infographics in printed materials such as posters and leaflets; and also from awareness campaigns.

The project will strengthen the local university as a Climate Resilience Knowledge Management Center in NTT province. The knowledge management center will have a strong team of scientists and strong links with practitioners to ensure transdisciplinary climate knowledge is created, shared, and used for decision making by the local government and other stakeholders. The knowledge management center will also facilitate regular research seminars and symposium on climate resilience issues.

YAPEKA and its consortium will also disseminate project activities and results through social media and by engaging journalists and influencers to increase awareness of communities on climate change issues, especially climate adaptation measures in Rote and Sabu islands in Savu Seascape of NTT province.

II.H. CONSULTATION PROCESS

Consultative process has been conducted with stakeholders especially government agencies at national and sub national levels, as described below:

The Directorate General of Climate Change Control, the Ministry of Environment and Forestry. On July 1, 2022 YAPEKA discussed the project proposal with the Sub-Director of Climate Vulnerability Identification and Analysis. Some constructive inputs for the project proposal have been documented including ensuring that the project proposal should take into account government's policies and strategic planning on climate change. The project is also expected to have contributions/recommendations at national level particularly on climate adaptation strategy for the coastal area, small islands and marine sector.

Agency for Marine National Conservation Area (BKKPN) Kupang. BKKPN Kupang is the management authority of the Savu Sea Marine National Park in NTT. The agency is concerned about the condition of degrading ecosystems in Rote and Sabu islands particularly due to the Seroja tropical cyclone that hit the area in 2021. In addition it is expected that the project can improve the adaptive capacity of the ecosystems as well as coastal communities. BKKPN Kupang also encourages sustainable utilization of coastal and marine resources by local communities.

Climate Adaptation Forum at NTT Province. On June 29, 2022 YAPEKA facilitated a meeting with the climate adaptation forum (Pokja Adaptasi Perubahan Iklim) at NTT province. The forum is led by the provincial government agency of environment (Dinas Lingkungan Hidup NTT) and participated by other provincial government agencies including the provincial agency of development planning, agency of marine and fishery. The forum is concerned about the implementation of the PROKLIM (climate village) program and the province of NTT is willing to contribute to the achievement of the national target: 20,000 PROKLIM villages. The proposed project will strengthen the capacity of district and village governments in implementing the PROKLIM program.

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Climate Adaptation Forum at Rote District. YAPEKA has discussed climate adaptation issues with a multi stakeholder forum at Rote District on May 31, 2022, including with the local agency of development planning, the local agency of disaster prevention, local journalists and NGOs. The forum concluded that Rote Ndao district is vulnerable to climate hazards, especially the vulnerable groups in coastal areas including women; and climate adaptation measures are needed. The forum also identified sites/villages that required climate adaptation activities. In addition the forum also identified the need to have financial support from the government through ecological fiscal transfer mechanism.

District agency for Environment, Rote Ndao. Consultative meetings with the local agency of environment revealed that the agency has a mandate to decrease greenhouse gas emission in addition to climate adaptation. Restoration of the mangrove ecosystem as an ecosystem-based adaptation practice will also have potential for carbon sequestration and decrease greenhouse gas emission.

District Government of Sabu Raijua. Consultative meetings have been conducted with the District Secretary regarding climate adaptation issues and the management of Savu Sea as a marine national park. Some concerns identified are the need to develop ecotourism to support the current district's mid-term development plan especially in improving sustainability and 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.

II.I. JUSTIFICATION FOR FUNDING REQUEST

The amount of funding requested **(USD 996,357)** is to support climate adaptation activities in the coastal area of Rote and Sabu islands of Savu Sea in NTT province. This funding will fill in gaps in the local government's climate finance support which the local government budget has been very limited for climate adaptation issues but more focused on the health sector due to the Pandemic COVID 19 in the last two years. For instance, the budget allocation from various sectors that can be assumed to contribute to climate mitigation and adaptation is only 1.29% of the total district budget (APBD) of Rote Ndao[21].

In general, calculations of the Regency/City Fiscal Decentralization Ratio, Financial Independence in both Rote Ndao and Sabu Raijua districts in NTT Province for 2019-2020 are very low[22]. There was a lack of special budget allocation (DAK) for the environment sector in these two districts in 2021[23]. Most of the DAK are for development of infrastructure. This project will also strengthen the budget for climate adaptation by developing an ecological fiscal transfer mechanism based on the existing budget regulation framework.

II.J. SUSTAINABILITY OF PROJECT OUTCOMES

The project will strengthen the knowledge management component to ensure improvement and sustainability of the knowledge management cycle (knowledge capture - synthesis - share - use), which will be done by strengthening local university/research center as a climate resilience knowledge management center and developing networks with the local government/decision makers and other key stakeholders. The Center for Transdisciplinary and Sustainable Science (CTSS)- IPB University will also mentor the development of the knowledge management center at local level.

The project will strengthen the capacity of existing coastal community groups such as POKDARWIS, POKMASWAS, KOMPAK and women's groups in continuously maintaining and managing coastal ecosystems that have been restored or traditionally conserved, as well as supporting livelihood assets. Those

[21] YAPEKA. 2021. Analisis Pagu Anggaran Kab. Rote Ndao.

[22] BPS. 2020. Statistik Keuangan Pemerintah Daerah NTT.

[23] Ditjen Perimbangan Keuangan, Kemenkeu. 2021. Daftar Alokasi Dana Transfer ke Daerah dan Dana Desa 2021

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community groups will be recognized and continuously coordinated by village or relevant local government agencies.

In supporting community livelihood, the project will conduct market chain analysis of any alternative livelihood products supported to ensure business development. 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.

The project will provide technical inputs in developing climate adaptation plan documents (RAD-API) for Sabu Raijua and Rote Ndao Districts. These documents are mandatory and will be based on The Ministry of Environment and Forestry Regulation No. P.33, 2016 about Guidelines on Climate Adaptation Action and will be integrated with the mid-term development plan (RPJMD Kabupaten).

The project will facilitate the development of the Ecological Fiscal Transfer (EFT) scheme that will be integrated with existing fiscal transfer from province to districts (TAPE) and from districts to villages (TAKE). The EFT scheme is expected to be issued based on the Governor and Bupati (Head of District) regulations for full operations.

Implementation of Ecosystem-based Adaptation at village level will be integrated with the government's national-wide PROKLIM program and registered in the climate national registration standard (SRN), and will contribute to Indonesia's NDC especially on adaptation.

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

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		

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Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
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		

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 Category C. Further assessment and management of potential impacts and risks are described in Section III.C: Measures for Environmental and Social Risk Management.

PART III: IMPLEMENTATION ARRANGEMENT

III.A. ARRANGEMENT FOR PROJECT IMPLEMENTATION

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).

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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.

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.

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.

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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.

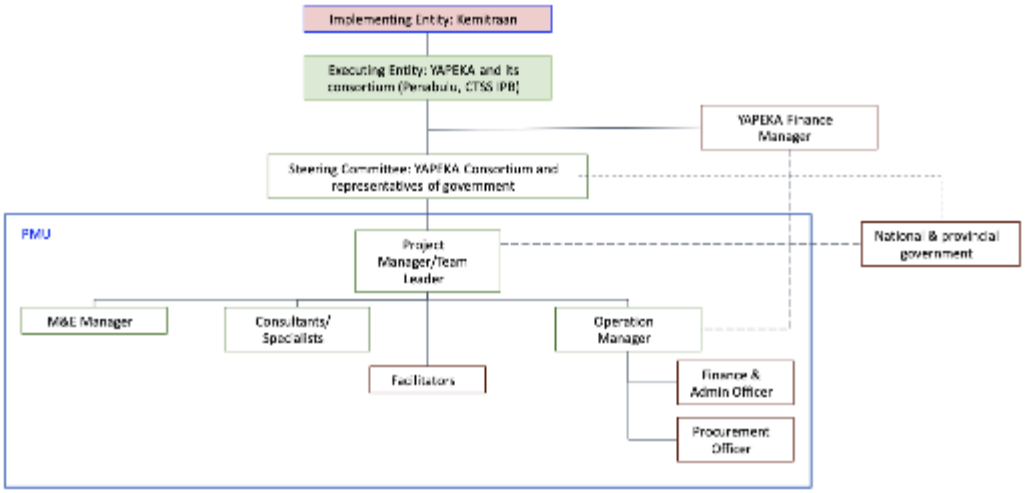

Figure: Project Organization Structure

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

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	- Implement YAPEKA's Guidelines for anti-corruptions and grievance

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Risks	Mitigation measures
funds/fraud	mechanisms. - Implement SOP on financial management and accounting systems. - Minimize cash transfers and cash advances. - Internal and external audit.
2. 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	
1. 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
3. 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
4. Complaints/feedback from beneficiaries, stakeholders, public	- Grievance and accountability mechanisms in place and shared with stakeholders include handling complaint unit.
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	Mitigation Measures
Compliance with the Law	
By regulation, some areas of Laut Sawu	Avoid species extraction from the core zone when

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Risk	Mitigation Measures
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	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.
Pollution Prevention and Resource Efficiency	
Polybag waste in mangrove nursery/planting activities	Use recyclable poly-bags (e.g made of palm leaves), and proper plastic waste disposal.
Ecotourism and other livelihood activities might produce waste that pollute the nearby ecosystems.	The project proponent will 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.
Coral reef grey infrastructure, particularly epoxy plastic might pollute the waters	Use locally sourced materials; avoid/minimize plastic structure for growth substrate; fixing the artificial substrate into the sea floor to avoid loose materials.
Protection of Natural Habitats	
Damage of coral reefs caused by boats and divers when collecting corals during coral transplantation.	Develop guidelines/SOP for collecting and transplanting corals; Train and brief divers prior to collecting corals to minimize damage of corals; throw boat anchors in areas without coral reef.
Construction works to develop hybrid infrastructure may use materials from illegal activities, such as sand from illegal sand query.	The project proponent will ensure subcontractors state that they will use legal materials in constructing hybrid infrastructure.
Marine ecotourism activity might influence natural habitats and marine wildlife.	Implement existing code of conduct in marine ecotourism and interaction with marine species which has been developed by BKKPN Kupang for Savu Sea.
Recruitment of coral reef fragments might cause even more damage to the source site	Apply strict recruitment protocol as approved by BKKPN/BRIN; only recruit from local coral sources to reduce risks
Access and Equity	
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.	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

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Risk	Mitigation Measures
Marginalized and Vulnerable Groups.	
Marginalized and vulnerable groups might have limited access to participate in the project implementation.	The project will 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.
Human Rights	
Human rights issues are not an explicit part of consultations with stakeholders during the identification and/or formulation of the project/programme.	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 might have limited access or neglected to participate in the project implementation	The project will prepare and implement a social-gender inclusion plan (SGIP), encourage women to participate in project activities and document meaningful participation of women in project activities.
Core Labor	
Forced or compulsory labor, child labor, descrimination and respect of employment and occupation.	Implement YAPEKA's Ethical Guidelines.
Public Health	
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.	The project will follow covid-19 protocol to prevent the spread of pandemic covid-19; and coordinate with local covid-19 task force

III.D. MONITORING AND EVALUATION ARRANGEMENT

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:

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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

		DESCRIPTION	TOTAL USD
Activity	5.1.1.	Workshop on Implementation of Climate Resilience Policy at local level	$ 10.714
	PE 4	Project Evaluation Report	$ 714
	PE 5	M&E Mission	$ 10.714
	IE.2	Project implementation and supervision	$ 51.429
	IE 3	Evaluation	$ 23.000
TOTAL			**$ 996.357**

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III.E. RESULTS FRAMEWORK

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Objective 1: Strengthened ability of coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations.				
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. District Adaptation Action Plans that use updated Coastal vulnerability associated with TC data and information.	• 2 District Adaptation Plans that use updated coastal risk and vulnerability associated with TCs data (Rote Ndao and Sabu Raijua)	• Documents of District Adaptation Plans.	• Lack of active participation of local government stakeholders in preparing the adaptation action plans.	• Work with BAPPELITBANGDA at district level to coordinate multi stakeholder workshops.
Output 1.3. Coastal village communities with improved knowledge and skills in accessing and interpreting	• Coastal communities in 6 villages with improved knowledge and skills in accessing and interpreting	• List of training participants on accessing and interpreting climate-extreme weather.	• Climate-extreme weather information service delivery and communication	• Coordinate with BMKG and BPBD to ensure reliable climate-weather

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
climate-extreme weather information.	climate-extreme weather.		networks are not working well.	information.
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 national and sub national stakeholders and entities to capture and disseminate knowledge and learning.	• Knowledge Attitude and Practice (KAP) Survey results on predicted adverse impacts of climate change, and of appropriate responses. • Strengthened local university in Climate resilience knowledge management.	• an unclear percentage of increase of awareness is based on project activities. • Obstacles in strengthening the capacity of a local university in climate resilience knowledge management.	• KAP survey design includes population with project intervention and population without project intervention (control population) • Provide technical assistance/mentoring the process of strengthening the local university.
Output 2.1. 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/influencers in project activities.
Output 2.2. Strengthened capacity of the local university/research center (e.g. UNDANA) as a Climate Resilience Knowledge Management Center	• 1 university/research center strengthened as Knowledge Management Center on Climate Resilience at provincial level. • 1 climate resilience knowledge management strategy developed. • At least 3 Research Seminars	• University/Research Center document that describes the establishment of the KM center. • List of researchers and fellow researchers who work in the KM center. • Document of KM strategy. • List of climate research	• Long administration and compliance process to establish a KM center by the university. • Weak coordination between the university and other stakeholders	• The project will provide technical assistance and facilitate coordination meetings with the university. • The project will facilitate

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	(online/offline) conducted by the KM center. ● 1 Climate resilience symposium facilitated by the KM center. ● At least 5 KM center staff trained on GIS. ● 2 units of Computer/laptop facility provided for MIS/GIS.	seminars. ● Proceedings of climate resilience symposium. ● List of staff participating in the GIS training and copy of certificates. ● Hand over document on computer/laptop with list of assets.	(knowledge users).	coordination meetings with stakeholders (knowledge holders and potential users)
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 impacts, including variability.	● 3 types of coastal ecosystems maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) ● Local communities with improved capacity in implementing ecosystem restoration/rehabilitation and implementing LMMA. ● Local communities with improved capacity in conducting monitoring and surveillance.	● Physical evidence of coastal ecosystem restoration. ● Reports and maps on coastal ecosystem restorations ● List of training participants and copies of certificates. ● List of assets provided to local communities for ecosystem restoration and monitoring and surveillance activities.	● Anthropogenic threats occur in target areas increasing the vulnerability of coastal ecosystems.	● The project will identify target areas with less anthropogenic threats or where anthropogenic threats can be eliminated.
Output 3.1. Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities	● 1 set of criteria to identify and select sites for coastal ecosystem restorations. ● 6 Ha coral rehabilitation, 12 Ha mangrove rehabilitation, and 6 Ha seagrass rehabilitation (involving replanting mangrove/ coral transplantation, or natural	● Documentation of criteria and selection of sites for coastal ecosystem restorations. ● Physical evidence of ecosystem restoration/ rehabilitation. ● Reports on coastal Ecosystem	● Overlapping land use plan on target locations that may inhibit sustainability of coastal ecosystem restoration/ conservation management. ● Ecosystem	● The project will consult with the local agency for development planning especially on spatial plans of the target locations. ● The project will prepare guidelines

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	rehabilitation/conservation).	restoration/rehabilitation.	Rehabilitation activities are not well maintained.	to monitor rehabilitated ecosystems.
Output 3.2. Communities with improved knowledge and skills in implementing EbA	● At least 100 coastal community members are trained on coastal ecosystem restoration and/or on locally managed marine areas (LMMA)	● Training modules/materials ● List of training participants. ● Training reports.	● Training participants cannot implement the knowledge from training materials ● Participants of the training do not include women and vulnerable/marginalized groups.	● Training participants will be involved in implementing ecosystem restoration/LMMA. ● Encourage inclusion of women and vulnerable/marginalized groups in participating in the training.
Output 3.3 Communities with improved capacity in conducting community-based biodiversity monitoring and surveillance.	● At least 5 community groups from target villages (e.g. POKMASWAS, KOMPAK, POKDARWIS) are trained in community-based biodiversity/ conservation monitoring. ● At least 5 sets of biodiversity monitoring and surveillance supporting equipment are available for community groups (POKMASWAS)	● Training module/materials ● List of participants and community groups participating in the training. ● Training reports. ● List of biodiversity monitoring and surveillance equipment. ● Handing over documents of biodiversity monitoring and surveillance equipment.	● Training participants cannot implement the knowledge from training materials ● Participants of the training do not include women and vulnerable/marginalized groups. ● biodiversity monitoring and surveillance equipment are not well maintained.	● Training participants will be involved in implementing ecosystem restoration/LMMA. ● Encourage inclusion of women and vulnerable/marginalized groups in participating in the training. ● Prepare operation and maintenance plan of the equipment.
Outcome 4: Communities with improved and diversified livelihoods.	● No. and type of adaptation assets (tangible and intangible) created or strengthened in	● List of adaptation assets (tangible and intangible) created or strengthened in	● Improper operation and maintenance of adaptation assets.	● Operation and maintenance plan agreed by

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	support of individual or community livelihood strategies ● Type of income sources for households/livelihood generated under climate change scenarios.	support of individual or community livelihood strategies. ● Reports on business development of livelihood opportunities	● Challenges in the Vulnerability context of livelihood (e.g. marketing, seasonality, etc.).	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/marginalized groups.	● Training participants will be involved in developing and implementing businesses. ● Encourage inclusion of women and vulnerable/marginalized 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.
Output 4.4. Technical assistance to livelihood businesses during community proposal	● 6 villages provided with technical assistance and facilitation during community proposal preparation and	● Guidelines for preparing proposals and implementing livelihood activities ● Community proposals on	● Lack of local/village policy and regulation support on livelihood activities from the	● Coordinate livelihood activities with the local/village

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
preparation and throughout business implementation.	throughout business implementation. ● 6 Community proposals on livelihood activities.	livelihood activities. ● Livelihood facilitation activity reports.	local/village governments.	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: Local and village governments with improved capacity and financial support to implement adaptation measures.				
Outcome 5: Strengthened local and village governments capacity to reduce risks associated with climate-induced socio economic and environmental losses.	● Number of local and village government staff with improved competency to mitigate climate impacts. ● 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 access modality.	● List of government staff and community certified in disaster mitigation and climate adaptation in coastal areas. ● List of district government institutions and villages participating in preparing Adaptation Action Plans and PROKLIM program ● List of district government institutions and villages participating in developing EFT schemes.	● Training module/material is not compatible with the certification process. ● Preparation of Adaptation Action Plans are not in district and village agenda. ● Stakeholders (including local parliament) do not have consensus in the EFT scheme.	● Coordinate the preparation of training modules/material with a professional certification body (BSNP). ● Preliminary coordination with district and village. ● Facilitate multi stakeholder forum workshops.

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Output 5.1. Local government and village staff with improved competency in climate change and disaster management.	• 30 local government and village staff with improved competency in climate change and disaster management. • 8 of targeted institutions with increased capacity to minimize exposure to climate variability risks.	• List of training participants. • Copy of certificates of participants issued by BSNP (national body for professional certification) • List of institutions with certified staff in climate change and disaster management.	• Participants of the training have problems understanding training content. • Participants of the training do not include women and vulnerable group	• The training design will include field practice and community organizers as well as project technical staff will provide guidance. • The project will encourage inclusion of women and vulnerable communities in participating in the training.
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	• 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.

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
		including list of participants and documentation.		
Output 5.2. 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.
Output 5.3. Climate resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.	• 2 EFT schemes developed by the district governments. • 1 set of EFT ecological indicators based on coastal adaptation.	• List of district government institutions and villages participating in developing EFT schemes. • EFT indicators based on coastal adaptation. • EFT document.	• Stakeholders (including local parliament) do not have consensus in the EFT schemes.	• Facilitate multi stakeholder forum workshops.
Output 5.4. Coastal villages participating in the PROKLIM program.	• 8 villages participating PROKLIM program	• Participating villages are registered in SRN. • Activity Reports.	• Different readiness of villages in participating PROKLIM program	• Facilitate training and socialization of PROKLIM program

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 make informed decisions about	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.	60,000

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climate change- driven hazards affecting their specific locations.	Percentage of target coastal communities that are aware of the impacts of extreme weather and climate; and of adaptation measures.	AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level.	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses.	104,500
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.	177,571
	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.	118,929
Objective 3: Strengthened local and village government capacity to reduce risks associated with climate-induced socio economic and environmental losses	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.	370,286

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	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.	USD 60,000

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decision-making.			1.1.2 No. of early warning systems (by scale) and no. of beneficiaries covered.	
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 42,857
	Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning.	Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning.	3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge. 3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders.	USD 61,643
Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability.	Number of coastal ecosystems maintained or improved to withstand conditions resulting from climate variability and change (by type and scale).	Output 5. Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability.	5.1. Number. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale).	USD 177,571
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	Output 6. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability.	6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	USD 118,929

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	Type of income sources for households/livelihood generated under climate change scenarios.		6.1.2. Type of income sources for households generated under climate change scenarios.	
Outcome 5: Strengthened local and village government capacity to reduce risks associated with climate-induced socio economic and environmental losses	Number of local and village government staff with improved competency to mitigate climate impacts. 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 access modality.	Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events.	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender). 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale. 2.2.1 No. of targeted institutions benefitting from the direct access and enhanced direct access modality.	USD 370,286

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III.G. PROJECT BUDGET

		DESCRIPTION	TOTAL USD	%	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
COMPONENT 1. KNOWLEDGE MANAGEMENT			**$ 164.500**	**18%**								
OUTCOME	**1**	**Increased generation and use of coastal vulnerability in decision-making to increase climate resilience**	**$ 60.000**									
OUTPUT	1.1	Updated data & information on Coastal Vulnerability Associated with Tropical Cyclones in Rote and Sabu islands	$ 35.714									
Activity	1.1.1	Conduct Action Research on coastal vulnerability associated with tropical cyclones in Rote and Sabu islands	$ 35.714		$ 17.857	$ 17.857						
OUTPUT	1.2	District Adaptation Action Plans that use updated data/information on coastal vulnerability asssociated with TCs.	$ 11.429									
Activity	1.2.1	Conduct Workshops to use the updated coastal vulnerability for preparing district adaptation action plans.	$ 11.429				11.429					
OUTPUT	1.3	Coastal village communities with improved knowledge and skills in accessing and interpreting climate-extreme weather information	$ 12.857									
Activity	1.3.1	Train coastal village communities on accessing & interpreting climate-extreme weather information	$ 12.857				12.857					
OUTCOME	**2**	**Increased awareness of the impacts of extreme weather and climate; and of adaptation measures**	**$ 104.500**									
OUTPUT	2.1	Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.	$ 42.857									
Activity	2.1.1	Develop communication materials (press releases, infographics, etc.) on climate resilience issues	$ 8.571		$ 2.143		$ 2.143		$ 2.143		$ 2.143	
	2.1.2	Facilitate media trips to cover climate issues and EbA implementation in Rote and Sabu islands	$ 34.286					$ 17.143			$ 17.143	
OUTPUT	2.2	Strengthened capacity of the local university/research center (e.g. UNDANA) as a Climate Resilience Knowledge Management Center at NTT Province level.	$ 61.643									
Activity	2.2.1	Provide technical assistance/consultant to develop climate resilience knowledge management center	$ 25.714		$ 4.286	$ 4.286	$ 4.286	$ 4.286	$ 4.286		$ 4.286	
	2.2.2	Conduct coordination meetings with local university/research center on the development of Climate Resilience Knowledge Management Center (CRKMC)	$ 3.571		$ 3.571							
	2.2.3	Facilitate workshop to strengthen university/research center as Climate Resilience KM Center	$ 5.714				$ 5.714					
	2.2.4	Facilitate online research seminars on Climate Resilience	$ 5.357				$ 1.786		$ 1.786		$ 1.786	
	2.2.5	Faciliate climate resilience symposium in NTT province	$ 14.286					$ 14.286				
	2.2.8	Train KM center staff on GIS	$ 3.429			$ 3.429						
	2.2.7	Provide computer/laptop facility for MIS and GIS	$ 3.571					$ 3.571				
COMPONENT 2. ECOSYSTEM-BASED ADAPTATION AND LIVELIHOOD			**$ 296.500**	**32%**								
OUTCOME	**3**	**Vulnerable ecosystems strengthened in response to climate change impacts, including variability**	**$ 177.571**									
OUTPUT	3.1	Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities	$ 134.714									
Activity	3.1.1	Workshop to Develop criteria and selection of ecosystem restoration locations (village-based) with the district government of Rote Ndao and Sabu Raijua	$ 14.286			$ 14.286						
	3.1.2	Field surveys and coordination with local communities at targeted villages for restoration preparation	$ 8.571			$ 8.571						
	3.1.3	Conduct restoration of coastal ecosystems (e.g. mangrove tree planting and nursery/coral transplantation/seagrass rehabilitation/water spring conservation/construction of hybrid infrastructure) in targeted villages	$ 64.286				$ 16.071	$ 16.071	$ 16.071	$ 16.071		
	3.1.4	Provide technical assistance/consultant to implement EbA (EbA Specialist)	$ 32.143			$ 5.357	$ 5.357	$ 5.357	$ 5.357	$ 5.357	$ 5.357	
	3.1.5	Provide community organizers/facilitators to facilitate restoration activities	$ 15.429			$ 2.571	$ 2.571	$ 2.571	$ 2.571	$ 2.571	$ 2.571	
OUTPUT	3.2	Communities with improved knowledge and skills in implementing EbA	$ 12.857									
Activity	3.2.1	Train local communities on ecosystem restoration techniques and LMMA	$ 12.857			$ 12.857						
OUTPUT	3.3	Communities with improved knowledge and skills in community-based biodiversity/ conservation monitoring.	$ 30.000									
Activity	3.3.1	Train local communities (POKMASWAS) on biodiversity monitoring and surveilance techniques	$ 12.857						$ 12.857			
	3.3.2	Provide biodiversity monitoring and surveilance supporting equipment for community groups (POKMASWAS)	$ 17.143							$ 17.143		
OUTCOME	**4**	**Communities with improved and diversified livelihoods**	**$ 118.929**									
OUTPUT	4.1	Rapid local market assessments at the village level to identify site-specific livelihoods opportunities	$ 21.429									
Activity	4.1.1	Conduct rapid local market assessment at village level to identify site-specific livelihood opportunities	$ 21.429			$ 21.429						
OUTPUT	4.2	Local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.	$ 25.714									
Activity	4.2.1	Train local communities on sustainable production practices, business management, value chain improvement, and accessing financial services	$ 25.714				$ 25.714					
OUTPUT	4.3	Value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund	$ 10.714									
Activity	4.3.1	Conduct value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund	$ 10.714				$ 10.714					
OUTPUT	4.4	Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation	$ 39.643									
Activity	4.4.1	Provide technical assitance/consultant: Livelihood specialist	$ 26.786				$ 5.357	$ 5.357	$ 5.357	$ 5.357	$ 5.357	
	4.4.2	Provide community organizers/facilitators to facilitate livelihood activities	$ 12.857				$ 2.571	$ 2.571	$ 2.571	$ 2.571	$ 2.571	
OUTPUT	4.5	Community livelihood subgrants	$ 21.429									
Activity	4.5.1	Provide community livelihood subgrants	$ 21.429				$ 21.429					

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COMPONENT 3. CAPACITY BUILDING AND GOVERNANCE			**$ 370.286**	**40%**									
OUTCOME	**5**	**Local and village government with improved capacity and finance to implement adaptation measures**	**$ 370.286**										
OUTPUT	5.1	Assessment on capacity of local government in implementing the national Climate Resilience Policy	$ 25.000										
Activity	5.1.1.	Workshop on Implementation of Climate Resilience Policy at local level	$ 10.714		$ 10.714								
Activity	5.1.2.	Conduct research on climate budgeting to support the implementtion climate resilience policy	$ 14.286			$ 14.286							
OUTPUT	5.2.	Local government staff with improved knowledge and skills to conduct climate budget tagging for climate resilience	$ 85.714										
Activity	5.2.1	Training on Climate Budget Tagging for local government staff	$ 57.143				$ 57.143						
	5.2.2	Facilitate workshop on gender-responsive climate budget	$ 28.571				$ 28.571						
OUTPUT	5.3	Local government and village staff with improved knowledge and competency in disaster mitigation and climate adaptation in coastal areas.	$ 27.143										
	5.3.1	Conduct training for local, village government and communities on disaster mitigation and climate adaptation in coastal areas.	$ 12.857				$ 12.857						
	5.3.2	Facilitate certification for local, village government and communities on disaster mitigation and climate adaptation in coastal areas.	$ 14.286					$ 14.286					
OUTPUT	5.4	Strengthened ICM approach in Savu seascape that takes into account climate resilience issues.	$ 48.571										
	5.4.1	Develop policy brief on ICM approach to increase climate resilience in Savu Seascape	$ 14.286					$ 3.571	$ 3.571	$ 3.571	$ 3.571		
	5.4.2	Facilitate Workshop to disseminate Policy Brief on ICM approach to increase climate resilience in Savu Seascape	$ 11.429					$ 5.714	$ 5.714				
	5.4.3	Facilitate Multi Stakeholder Forum (DKPPNTT) Workshop to roadmap for integrating the policy brief recommendation with coastal & marine spatial/development plans	$ 22.857							$ 11.429	$ 11.429		
OUTPUT	5.5	Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts	$ 58.571										
Activity	5.5.1	Provide technical assistance to prepare draft of RAD-API	$ 12.857					$ 4.286	$ 4.286	$ 4.286			
	5.5.2	Facilitate workshops to prepare Adaptation Action Plans for Rote Ndao and Sabu Raijua Districts	$ 14.286					$ 14.286					
	5.5.3	Facilitate stakeholder consultation workshops on Draft of Adaptation Action for Rote Ndao and Sabu Raijua Districts	$ 14.286						$ 14.286				
	5.5.4	Facilitate workshop on integration of Adaptation Action Plans with SEA/RPJMD of Rote Ndao and Sabu Raijua Districts	$ 17.143							$ 17.143			
OUTPUT	5.6	Climate resilience funding scheme for coastal and small islands of Rote and Sabu through Ecological Fiscal Transfer (EFT) scheme	$ 38.857										
Activity	5.6.1	Provide technical assistance to prepare EFT scheme document	$ 10.286						$ 5.143	$ 5.143			
	5.6.2	Facilitate workshop to define EFT scheme	$ 11.429						$ 11.429				
	5.6.3	Faciliate stakeholder consultation workshop on EFT scheme	$ 11.429							$ 11.429			
	5.6.4	Facilitate workshop to institutionalize and prepare M&E plan for EFT scheme	$ 5.714							$ 5.714			
OUTPUT	5.7	Coastal Villages participating in the government's PROKLIM Program	$ 61.429										
Activity	5.7.1	Facilitate Workshop on PROKLIM implementation in Rote and Sabu districts and selection of PROKLIM villages	$ 14.286			$ 14.286							
	5.7.2	Train participating PROKLIM Village Facilitators on PROKLIM implementation scheme	$ 21.429				$ 21.429						
	5.7.3	Facilitate Village FGDs to discuss funding schemes for adaptation and mitigation plans from village fund and EFT	$ 25.714							$ 12.857	$ 12.857		
OUTPUT	5.8	Guidelines for Village Facilitators to implement climate adaptation activities at village level	$ 25.000										
	5.8.1	Develop guidelines for Village Facilitators to implement climate adaptation activities at village level	$ 10.714								$ 10.714		
	5.8.2	Facilitate Training for Village Facilitators to impelemnt climate adaptation activities at village level	$ 14.286									$ 14.286	
B. PROJECT EXECUTION COST			**$ 87.143**	**9,5%**									
	PE 1	Project Manager	$ 25.714		$ 3.214	$ 3.214	$ 3.214	$ 3.214	$ 3.214	$ 3.214	$ 3.214	$ 3.214	
	PE 2	Finance & Admin Officer	$ 10.286		$ 1.286	$ 1.286	$ 1.286	$ 1.286	$ 1.286	$ 1.286	$ 1.286	$ 1.286	
	PE 3	Project Financial Reports	$ 857		$ 107	$ 107	$ 107	$ 107	$ 107	$ 107	$ 107	$ 107	
	PE 4	Project Evaluation Report	$ 714									$ 714	
	PE 5	M&E Mission	$ 10.714			$ 3.571		$ 3.571		$ 3.571			
	PE 6	Audit Report	$ 10.000					$ 5.000				$ 5.000	
	PE 7	Motorcycle rental for District Coordinator and Community Organizers	$ 1.429		$ 714				$ 714				
	PE 8	Office Rental and Operations (intenet, electricity) in Rote Ndao and Sabu Raijua	$ 27.429		$ 13.714				$ 13.714				
C. IMPLEMENTING ENTITIY FEE			**$ 77.929**	**8,5%**									
		Project identification and development	$ 3.500		$ 3.500								
		Project implementation and supervision	$ 51.429			$ 17.143		$ 17.143		$ 17.143			
		Evaluation	$ 23.000									$ 23.000	
TOTAL			**$ 996.357**		**$ 61.107**	**$ 144.536**	**$ 252.607**	**$ 143.679**	**$ 116.464**	**$ 145.964**	**$ 84.393**	**$ 47.607**	

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III.H. DISBURSEMENT SCHEDULE

Table Disbursement Schedule.

Payment	Milestones	Schedule	Amount
Termin 1	Upon sign of agreement	1st month	$ 205.643
Termin 2	Upon Progres & Financial Reports Q1-Q2 are accepted	7th month	$ 396.286
Termin 3	Upon Progres & Financial Reports Q3-Q4 are accepted	13th month	$ 262.429
Termin 4	Upon Progress & Financial Reports Q5Q6 are accepted	18th month	$ 132.000
		TOTAL	$ 996.357

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:

Table. Record of Endorsement on behalf of the Government.

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

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KEMENTERIAN KELAUTAN DAN PERIKANAN
DIREKTORAT JENDERAL PENGELOLAAN RUANG LAUT
BALAI KAWASAN KONSERVASI PERAIRAN NASIONAL
JL. YOS SUDARSO JURUSAN BOLOK, KELURAHAN ALAK, KECAMATAN ALAK, KOTA KUPANG, PROVINSI NUSA TENGGARA TIMUR 85231
TELEPON/FAX. (0380) 890421 LAMAN *kkp.go.id/djprl/bkkpnkupang*
SURAT ELEKTRONIK *bkkpn_kupang@kkp.go.id*

Nomor : B. 2014/BKKPN/TU.210/VII/2022 4 Juli 2022
Sifat : Biasa
Lampiran : -
Perihal : Surat Dukungan

Yth. Pimpinan Yayasan Kemitraan
Jl. Taman Margasatwa 26C, Ragunan, Pasar Minggu
Jakarta Selatan 12550

Menindaklanjuti surat Ketua-CEO YAPEKA Nomor 1077/PER/YAPEKA/VI/2022, tertanggal 30 Juni 2022, Perihal Permohonan Surat Dukungan, bersama ini kami sampaikan bahwa Kementerian Kelautan dan Perikanan (KKP) melalui Unit Pelaksana Teknis Balai Konservasi Kawasan Perairan Nasional (BKKPN) Kupang di Provinsi Nusa Tenggara Timur menyambut baik kegiatan yang akan dilaksanakan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districs in Savu Sea*** oleh YAPEKA dan Konsorsium (Yayasan Penabulu dan CTSS-IPB) untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity*.

Kegiatan tersebut selain memberikan kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Nusa Tenggara Timur, diharapkan juga mendukung pengelolaan kawasan konservasi Taman Nasional Perairan Laut Sawu serta pemberdayaan masyarakat di sekitarnya.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya kami ucapkan terima kasih

Kepala Balai Kawasan Konservasi Perairan Nasional (BKKPN) Kupang

ditandatangani secara elektronik

Imam Fauzi

Tembusan:
CEO YAPEKA

Dokumen ini telah ditandatangani menggunakan sertifikat elektronik yang dikeluarkan oleh BSrE

PEMERINTAH PROVINSI NUSA TENGGARA TIMUR
BADAN PERENCANAAN PEMBANGUNAN PENELITIAN DAN PENGEMBANGAN DAERAH
(BAPPELITBANGDA)
Jln Polisi Militer Nomor 2, Telp. 833462, 832975 Kupang

07 Juli 2022

Nomor : BP4D. 045.1.2/IK. 195/07/2022
Lampiran : -
Hal : Pemberian Dukungan Kegiatan

Yth. Pimpinan Yayasan Kemitraan
di –
JAKARTA

Menindaklanjuti surat saudara nomor: 1071/PER/YAPEKA/VI/2022 tanggal 27 Juni 2019, perihal: Permohonan Surat Dukungan Bappelitbangda Provinsi Nusa Tenggara Timur terkait Rencana Kegiatan YAPEKA di Provinsi Nusa Tenggara Timur, maka kami sampaikan hal-hal sebagai berikut:

1. Pemerintah Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districts in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang dilaksanakan oleh YAPEKA dan Konsorsium (Yayasan Penabulu dan CTSS-IPB);
2. Untuk itu disampaikan bahwa kami memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS-IPB untuk pelaksanaan kegiatan tersebut dilaksanakan sesuai rencana yang telah dibuat;
3. Diharapkan melalui kegiatan ini dapat memberikan masukan serta kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Provinsi Nusa Tenggara Timur secara umum dan Kabupaten Sabu Raijua serta Kabupaten Rote Ndao secara khusus.

Demikian disampaikan, atas perhatian dan kerjasamanya disampaikan terima kasih.

PLT. KEPALA BAPPELITBANGDA
PROVINSI NUSA TENGGARA TIMUR,

BAPPELITBANGDA

JOHANNA E. LISAPALY, SH.,M.Si
Pembina Utama Madya
NIP. 196401101989032015

Tembusan :
1. Gubernur Nusa Tenggara Timur sebagai laporan;
2. Wakil Gubernur Nusa Tenggara Timur sebagai laporan;
3. Plt. Sekretaris Daerah Provinsi NTT sebagai laporan;
4. CEO YAPEKA.

PEMERINTAH KABUPATEN SABU RAIJUA
BADAN PERENCANAAN PEMBANGUNAN DAERAH
Jalan El Tari
SEBA

Seba, 5 Juli 2022

No : 750/ /BAP-SR/VII/2022
Perihal : Surat Dukungan

Kepada
Yth. Pimpinan Yayasan Kemitraan
Jl. Taman Margasatwa 26C, Ragunan, Pasar Minggu
Jakarta Selatan 12550

Dengan hormat,

Menindaklanjuti surat Ketua-CEO YAPEKA Nomor : 1072/PER/YAPEKA/VI/2022, tertanggal 27 Juni 2022, Perihal Permohonan Surat Dukungan, Bersama ini kami sampaikan bahwa Pemerintah Kabupaten Sabu Raijua, Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districts in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang akan dilaksanakan oleh YAPEKA, Yayasan Penabulu dan CTSS IPB.

Atas nama Pemerintah Kabupaten Sabu Raijua, Provinsi Nusa Tenggara Timur, bersama ini kami sampaikan bahwa kami menyambut baik serta memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS IPB untuk pelaksanaan kegiatan tersebut. Diharapkan dari kegiatan ini dapat memberikan masukan serta kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Kabupaten Sabu Raijua.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Plt. Kepala Bappeda,

Drs. Haludin Abdullah, M.Si
Pembina Tk.I
NIP.19641231 198603 1 366

Tembusan : dengan hormat disampaikan kepada :
1. Bupati Sabu Raijua di Seba (Sebagai laporan);
2. Wakil Bupati Sabu Raijua di Seba
3. Sekretaris Daerah Kabupaten Sabu Raijua di Seba;
4. Asisten Perekonomian dan Pembangunan Sekda Kabupaten Sabu Raijua di Seba;
5. CEO YAPEKA di Tempat.

PEMERINTAH KABUPATEN ROTE NDAO
BADAN PERENCANAAN PENELITIAN
DAN PENGEMBANGAN
(BAPELITBANG)

Kompleks Perkantoran Bumi Ti'i Langga Permai Lekunik – Ba'a
Telp. (0380) 8571032 Fax. (0380) 8571031

Ba'a, 12 Juli 2022

Nomor : 050 / 72 / Bapelitbang 2.3
Sifat : Penting
Lampiran : -
Hal : **Surat Dukungan Upaya Pengurangan Dampak Perubahan Iklim**

Kepada
Yth. Pimpinan Yayasan Kemitraan
di -
Jakarta Selatan

Saat ini kondisi perubahan iklim sangat nyata dirasakan oleh masyarakat yang berada di Kabupaten Rote Ndao. Pasca siklon seroja, Pemerintah Kabupaten dan masyarakat melakukan upaya-upaya perbaikan dan pengurangan dampak. Pemerintah Kabupaten Rote Ndao memiliki komitmen untuk bersama-sama para pihak mengatasi permasalahan tersebut. Pemerintah Kabupaten Rote Ndao, Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districts in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang akan dilaksanakan oleh YAPEKA dan Konsorsium (Yayasan Penabulu & CTSS IPB).

Atas nama Pemerintah Kabupaten Rote Ndao, Provinsi Nusa Tenggara Timur, bersama ini kami sampaikan bahwa kami memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS IPB untuk pelaksanaan kegiatan tersebut. Diharapkan dari kegiatan ini dapat memberikan masukan kebijakan serta kontribusi penting di tingkat tapak bagi upaya mengurangi dampak perubahan iklim yang terjadi di Kabupaten Rote Ndao.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Plt. Kepala Bapelitbang Kab.Rote Ndao,

Jermi M. Haning, PhD
Pembina TK.I
NIP. 19730615 199302 1 002

Tembusan :
1. Bupati Rote Ndao di Ba'a sebagai laporan;
2. Wakil Bupati Rote Ndao di Ba'a sebagai laporan;
3. CEO YAPEKA di Bogor;
4. Inspektur Kabupaten Rote Ndao di Ba'a.

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, commit to implementing the project/programme in compliance with 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 Indonesia (Kemitraan)** Implementing Entity Coordinator

Date:	**Tel. and email:**
Project Contact Person:	
Tel. And Email:	

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ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in Savu Sea Project

YAPEKA

Introduction

YAPEKA is responsible for the preparation, implementation, and operation of the Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea Project that is proposed to the Adaptation Fund. All projects supported by the Adaptation Fund must comply with the **Adaptation Fund Environmental and Social Policy.** The objective of this safeguard system is to support the assessment of risks and potential impacts resulting from the Project by setting out the principles, guidelines, and procedures to assess, avoid, reduce, mitigate, and/or offset potential adverse environmental and social impacts and to enhance positive Project impacts and opportunities. This is to ensure that potential adverse environmental and social impacts that may be generated as a result of each project activity are identified, and appropriate safeguard instruments are prepared to avoid, minimize, mitigate and, in such cases where there are residual impacts, offset adverse environmental and social impacts.

The project's 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. Project components focus on knowledge management, implementation of EbA and sustainable livelihood, and capacity building that are unlikely to have adverse environmental and social impacts.

Screening of project activities against the Adaptation Fund Environmental and Social Policy identifies 9 principles as being applicable to this standard and requiring further attention. Below are the screening results of project activities on potential environmental and social impact and risks, based on the checklist of the Adaptation Fund 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**
1. *Compliance with the Law*		
2. *Access and Equity*		
3. *Marginalized and Vulnerable Groups*		

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
4. *Human Rights*		
5. *Gender Equality and Women's Empowerment*		
6. *Core Labour Rights*		
7. *Indigenous Peoples*		
8. *Involuntary Resettlement*		
9. *Protection of Natural Habitats*		
10. *Conservation of Biological Diversity*		
11. *Climate Change*		
12. *Pollution Prevention and Resource Efficiency*		
13. *Public Health*		
14. *Physical and Cultural Heritage*		
15. *Lands and Soil Conservation*		

Project risks are fewer in number, smaller in scale and less widespread; and mitigation actions are in place for the environmental and social principles that might be triggered by the project. Therefore the project should be categorized as Category C.

The table below describes the Environmental and Social Management Plan of the project.

Table 1 Environmental and Social Management Plan

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
Compliance with The Law			
By regulation, some areas of Savu Sea Marine National Park 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.	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.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages.	Quarter 3
Small-scale livelihood activities developed in this project might have an impact on environmental and social aspects.	● Conduct rapid environmental and social assessment of small-scale livelihood activities. ● Prepare environmental permit (SPPL) for small-scale livelihood activities.	Integrated in Activity 4.1.1. Conduct rapid local market assessment at village level to identify site-specific livelihood opportunities.	Quarter 2
Pollution Prevention and Resource Efficiency			
Polybag waste in mangrove nursery/planting activities	Use recyclable poly-bags (e.g made of palm leaves), and proper plastic waste disposal.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages.	Quarter 3

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
Ecotourism and other livelihood activities might produce waste that pollute the nearby ecosystems.	Prepare guidelines for waste management in ecotourism areas and livelihood activities and deliver the guidelines in a training activity	Integrated in Activity 4.2.1. Train local communities on sustainable production practices, business management, value chain improvement, and accessing financial services	Quarter 3
Use of epoxy plastic in coral reef grey infrastructure that might pollute the waters.	Use locally sourced materials; avoid/minimise plastic structure for growth substrate; fixing the artificial substrate into the sea floor to avoid loose materials.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages.	Quarter 3
Protection of Natural Habitats			
Damage of coral reefs caused by boats and divers when collecting corals during coral transplantation	● Develop guidelines/SOP for collecting and transplanting corals; ● Train and brief divers prior to collecting corals to minimise the damage of corals; ● Boat anchors in areas without coral reef.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages.	Quarter 3
Construction works to develop hybrid infrastructure may use materials from illegal activities, such as sand from illegal sand query.	● Ensure subcontractors state that they will use legal materials in constructing hybrid infrastructure; ● monitoring of development of hybrid infrastructure.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages.	Quarter 3

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
Marine ecotourism as a livelihood option might influence natural habitats and marine wildlife.	● Deliver training on Code of Conduct in marine ecotourism and interaction with marine species which has been developed by BKKPN Kupang for Savu Sea.	Integrated in Activity 4.2.1. Train local communities on sustainable production practices, business management, value chain improvement, and accessing financial services.	Quarter 3
Recruitment of coral reef fragments might cause even more damage to the source site.	● Train and apply strict coral recruitment protocol as approved by BKKPN; only recruit from local coral sources to reduce risks.	Integrated in Activity 3.1.3. Conduct restoration of coastal ecosystems in targeted villages	Quarter 3
Access and Equity			
Process to allocate access to the project might not be transparent and not well coordinated with stakeholders;	● Prepare and disclose a Stakeholder Engagement Plan. ● Prepare Grievance Mechanism ● Socialization of project activities.	● Integrate in Activity 6.1.1. Provide Technical Assistance to prepare and implement M&E Tools for the project (including Stakeholder Engagement Plan, Grievance Mechanism) ● Integrated in Activity 6.2.1.Conduct Kick-off/inception workshop at provincial level (NTT).	Quarter 1 Quarter 1
Selection of locations/villages for the implementation of EbA and livelihood activities might	● Coordinate selection of locations/villages for the implementation of EbA and livelihood activities with the local	● Integrated in Activity 3.1.1. Workshop to Develop criteria and selection of ecosystem restoration	Quarter 2

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
trigger jealousy among other villages	government and other relevant stakeholders ● Involve adjacent villages in the associated training. ● Trigger fundings from Dana Desa at adjacent villages when relevant.	locations (village-based) with the district government of Rote Ndao and Sabu Raijua.	
Provision of monitoring and surveillance equipment and community sub-grants to develop livelihood options for communities/beneficiaries might not be well managed and maintained.	● Prepare a signed document by community group/beneficiaries stating the agreement of proper management and maintenance of the equipment/community block grants.	● Integrated in Activity 3.3.2.Provide biodiversity monitoring and surveillance supporting equipment for community groups (POKMASWAS). ● Integrated in Activity 4.5.1. Provide community livelihood subgrants	
Marginalized and Vulnerable Groups			
Marginalized and vulnerable groups might have limited access to participate in the project implementation.	● Prepare Social-Gender Inclusion Plan ● Encourage marginalized/vulnerable groups to participate in project activities (included in TOR of activities).	● Integrate in Activity 6.1.1. Provide Technical Assistance to prepare and implement M&E Tools for the project (including SGIP).	Quarter 1, Throughout the project period
Human Rights			
Human rights issues are not an explicit part of consultations with stakeholders during the	● Implement *Free, Prior, and Informed Consent* (FPIC) during inception/consultations with	● Integrated in Activity 1.1.1. Conduct Action Research on coastal	Quarter 1

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
identification and/or formulation of the project/programme.	stakeholders and communities and in formulation of project activities.	vulnerability associated with tropical cyclones in Rote and Sabu islands ● Integrated in Activity 3.1.2.Field surveys and coordination with local communities at targeted villages for restoration preparation.	Quarter 3
Gender Equality & Women's Empowerment			
Women might have limited access or neglected to participate and in decision making in the project implementation.	● Prepare and implement a Social-Gender inclusion Plan (SGIP), ● Encourage women to participate in project activities and document meaningful participation of women in project activities. ● Implement YAPEKA's gender equality policy	● Integrate in Activity 6.1.1. Provide Technical Assistance to prepare and implement M&E Tools for the project (including SGIP).	Quarter 1, Throughout the project period
Core Labor Right			
Forced or compulsory labor, child labor, descrimination and respect of employment and occupation.	● Implement YAPEKA's Ethical Guidelines.	● Integrated into all project activities.	Throughout the project period
Public Health			

Potential Environmental and Social Impacts	Mitigation Measures	Cost Estimate of Mitigation Measures	Timeline (in quarter)
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.	● Follow the Government's covid-19 protocol to prevent the spread of pandemic covid-19; and coordinate with the local covid-19 task force.	● Integrated into all project activities.	Throughout the project period
Occupational health and safety risks (OHS) (mostly linked to accidents, illness, etc.) for both project employees and community members	● Risk assessment implementation during activity planning ● Travel and health insurance for staff ● emergency response procedures when carrying out fieldwork ● occupational safety and health standards and operational procedures ● Provision of safety equipment	● Integrated into all project activities.	Throughout the project period

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;

Our Ref. : S. 282/PPI/API/PPI.0/8/2022 Jakarta, 5 August 2022
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 Yours,

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)

PEMERINTAH KABUPATEN SABU RAIJUA
BADAN PERENCANAAN PEMBANGUNAN DAERAH
Jalan El Tari
S E B A

Seba, 5 Juli 2022

No : 750/112 /BAP-SR/VII/2022
Perihal : Surat Dukungan

Kepada
Yth. Pimpinan Yayasan Kemitraan
Jl. Taman Margasatwa 26C, Ragunan, Pasar Minggu
Jakarta Selatan 12550

Dengan hormat,

Menindaklanjuti surat Ketua-CEO YAPEKA Nomor : 1072/PER/YAPEKA/VI/2022, tertanggal 27 Juni 2022, Perihal Permohonan Surat Dukungan, Bersama ini kami sampaikan bahwa Pemerintah Kabupaten Sabu Raijua, Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districs in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang akan dilaksanakan oleh YAPEKA, Yayasan Penabulu dan CTSS IPB.

Atas nama Pemerintah Kabupaten Sabu Raijua, Provinsi Nusa Tenggara Timur, bersama ini kami sampaikan bahwa kami menyambut baik serta memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS IPB untuk pelaksanaan kegiatan tersebut. Diharapkan dari kegiatan ini dapat memberikan masukan serta kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Kabupaten Sabu Raijua.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Plt. Kepala Bappeda,

Drs. Haludin Abdullah, M.Si
Pembina Tk.I
NIP.19641231 198603 1 366

Tembusan : dengan hormat disampaikan kepada :
1. Bupati Sabu Raijua di Seba (Sebagai laporan);
2. Wakil Bupati Sabu Raijua di Seba
3. Sekretaris Daerah Kabupaten Sabu Raijua di Seba;
4. Asisten Perekonomian dan Pembangunan Sekda Kabupaten Sabu Raijua di Seba;
5. CEO YAPEKA di Tempat.

PEMERINTAH PROVINSI NUSA TENGGARA TIMUR
BADAN PERENCANAAN PEMBANGUNAN PENELITIAN DAN PENGEMBANGAN DAERAH
(BAPPELITBANGDA)
Jln Polisi Militer Nomor 2, Telp. 833462, 832975 Kupang

07 Juli 2022

Nomor : BP4D. 045.1.2/IK. 195/07/2022
Lampiran : -
Hal : Pemberian Dukungan Kegiatan

Yth. Pimpinan Yayasan Kemitraan
di –
JAKARTA

Menindaklanjuti surat saudara nomor: 1071/PER/YAPEKA/VI/2022 tanggal 27 Juni 2019, perihal: Permohonan Surat Dukungan Bappelitbangda Provinsi Nusa Tenggara Timur terkait Rencana Kegiatan YAPEKA di Provinsi Nusa Tenggara Timur, maka kami sampaikan hal-hal sebagai berikut:

1. Pemerintah Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districts in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang dilaksanakan oleh YAPEKA dan Konsorsium (Yayasan Penabulu dan CTSS-IPB);
2. Untuk itu disampaikan bahwa kami memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS-IPB untuk pelaksanaan kegiatan tersebut dilaksanakan sesuai rencana yang telah dibuat;
3. Diharapkan melalui kegiatan ini dapat memberikan masukan serta kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Provinsi Nusa Tenggara Timur secara umum dan Kabupaten Sabu Raijua serta Kabupaten Rote Ndao secara khusus.

Demikian disampaikan, atas perhatian dan kerjasamanya disampaikan terima kasih.

Plt. KEPALA BAPPELITBANGDA
PROVINSI NUSA TENGGARA TIMUR,

JOHANNA E. LISAPALY, SH.,M.Si
Pembina Utama Madya
NIP. 196401101989032015

Tembusan :
1. Gubernur Nusa Tenggara Timur sebagai laporan;
2. Wakil Gubernur Nusa Tenggara Timur sebagai laporan;
3. Plt. Sekretaris Daerah Provinsi NTT sebagai laporan;
4. CEO YAPEKA.

KEMENTERIAN KELAUTAN DAN PERIKANAN
DIREKTORAT JENDERAL PENGELOLAAN RUANG LAUT
BALAI KAWASAN KONSERVASI PERAIRAN NASIONAL
JL. YOS SUDARSO JURUSAN BOLOK, KELURAHAN ALAK, KECAMATAN ALAK, KOTA KUPANG, PROVINSI NUSA TENGGARA TIMUR 85231
TELEPON/FAX. (0380) 890421 LAMAN ***kkp.go.id/djprl/bkkpnkupang***
SURAT ELEKTRONIK ***bkkpn_kupang@kkp.go.id***

Nomor	:	B. 2014/BKKPN/TU.210/VII/2022	4 Juli 2022
Sifat	:	Biasa	
Lampiran	:	-	
Perihal	:	Surat Dukungan	

Yth. Pimpinan Yayasan Kemitraan
Jl. Taman Margasatwa 26C, Ragunan, Pasar Minggu
Jakarta Selatan 12550

Menindaklanjuti surat Ketua-CEO YAPEKA Nomor 1077/PER/YAPEKA/VI/2022, tertanggal 30 Juni 2022, Perihal Permohonan Surat Dukungan, bersama ini kami sampaikan bahwa Kementerian Kelautan dan Perikanan (KKP) melalui Unit Pelaksana Teknis Balai Konservasi Kawasan Perairan Nasional (BKKPN) Kupang di Provinsi Nusa Tenggara Timur menyambut baik kegiatan yang akan dilaksanakan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districs in Savu Sea*** oleh YAPEKA dan Konsorsium (Yayasan Penabulu dan CTSS-IPB) untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity.*

Kegiatan tersebut selain memberikan kontribusi penting bagi upaya mengurangi dampak perubahan iklim yang terjadi di Nusa Tenggara Timur, diharapkan juga mendukung pengelolaan kawasan konservasi Taman Nasional Perairan Laut Sawu serta pemberdayaan masyarakat di sekitarnya.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya kami ucapkan terima kasih

Kepala Balai Kawasan Konservasi Perairan Nasional (BKKPN) Kupang

ditandatangani secara elektronik

Imam Fauzi

Tembusan:
CEO YAPEKA

PEMERINTAH KABUPATEN ROTE NDAO
BADAN PERENCANAAN PENELITIAN
DAN PENGEMBANGAN
(BAPELITBANG)
Kompleks Perkantoran Bumi Ti'i Langga Permai Lekunik – Ba'a
Telp. (0380) 8571032 Fax. (0380) 8571031

Ba'a, 12 Juli 2022

Nomor : 050 / 72 / Bapelitbang 2.3
Sifat : Penting
Lampiran : -
Hal : **Surat Dukungan Upaya Pengurangan Dampak Perubahan Iklim**

Kepada
Yth. Pimpinan Yayasan Kemitraan
di -
Jakarta Selatan

Saat ini kondisi perubahan iklim sangat nyata dirasakan oleh masyarakat yang berada di Kabupaten Rote Ndao. Pasca siklon seroja, Pemerintah Kabupaten dan masyarakat melakukan upaya-upaya perbaikan dan pengurangan dampak. Pemerintah Kabupaten Rote Ndao memiliki komitmen untuk bersama-sama para pihak mengatasi permasalahan tersebut. Pemerintah Kabupaten Rote Ndao, Provinsi Nusa Tenggara Timur menyambut baik kegiatan dengan tema ***Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Rajua Districts in Savu Sea*** untuk diajukan ke ***Adaptation Fund*** melalui Yayasan Kemitraan sebagai *Implementing Entity* yang akan dilaksanakan oleh YAPEKA dan Konsorsium (Yayasan Penabulu & CTSS IPB).

Atas nama Pemerintah Kabupaten Rote Ndao, Provinsi Nusa Tenggara Timur, bersama ini kami sampaikan bahwa kami memberikan dukungan sepenuhnya kepada YAPEKA, Yayasan Penabulu dan CTSS IPB untuk pelaksanaan kegiatan tersebut. Diharapkan dari kegiatan ini dapat memberikan masukan kebijakan serta kontribusi penting di tingkat tapak bagi upaya mengurangi dampak perubahan iklim yang terjadi di Kabupaten Rote Ndao.

Demikian dukungan ini disampaikan, atas perhatian dan kerjasamanya diucapkan terima kasih.

Plt. Kepala Bapelitbang Kab.Rote Ndao,

Jermi M. Haning, PhD
Pembina TK.I
NIP. 19730615 199302 1 002

Tembusan :
1. Bupati Rote Ndao di Ba'a sebagai laporan;
2. Wakil Bupati Rote Ndao di Ba'a sebagai laporan;
3. CEO YAPEKA di Bogor;
4. Inspektur Kabupaten Rote Ndao di Ba'a.

SOCIAL-GENDER INCLUSION PLAN
(SGIP)

Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in Savu Sea Project

YAPEKA

Key Issues	Action	Target/Indicator	Budget	Timeline
Vulnerable/marginalized groups including small-scale fishermen and women are the most affected by climate change but are often neglected in enhancing their climate adaptive capacity and resilience.	Take into account inclusion of vulnerable/marginalized groups including small-scale fishermen and women in coastal vulnerability assessment and in Climate Adaptation Action Plans.	● 1 action research that takes into account the vulnerability of small-scale fishermen and women ● 2 Climate Adaptation Action Plan that takes into account inclusion of vulnerable/marginalized groups including women.	● Included in Budget Activity 1.1.1 . ● Included in Budget Activity 1.2.1	Q1 Q3
Most structures in the government and in the community are dominated by men which leads to lack of participation in capacity building activities and in coastal climate adaptation planning management processes.	● Encourage vulnerable groups and women participation in training and workshops. ● Create dedicated communication channel for women groups to convey concerns and ideas in Climate Change adaptation	● TORs of project training and workshop activities that encourage participation of vulnerable/marginalized groups and women. ● At least 30% of training/workshop participants are small-scale fishermen/women.	Included in training and workshop budget.	Throughout the project.

Key Issues	Action	Target/Indicator	Budget	Timeline
Limited recognition of women/vulnerable/marginalized group roles, participation and experiences in climate adaptation and sustainable livelihood activities.	Document and disseminate women/vulnerable/marginalized group roles, participation and experiences in climate adaptation and sustainable livelihood activities.	● 1 set of communication materials (press releases, infographics, etc.) on vulnerable/marginalized group/women's role, participation and experience in climate adaptation and sustainable livelihood practices. ● 1 Media coverage on vulnerable/marginalized groups/women's role, participation and experience in climate adaptation and sustainable livelihood practices. ● 1 section of documentation of women/vulnerable/marginalized group roles, participation and experiences in climate adaptation and sustainable livelihood activities in progress report (quarterly) ● 1 section of documentation of lessons learned on women/vulnerable/marginalized group roles,	Included in budget Activity 2.1.1; 2.1.2. Included in Budget Activity 6.4.1. Included in Budget Activity 6.6.2.	Q3 Q4, Q7 Every Quarterly Report Q 8.

Key Issues	Action	Target/Indicator	Budget	Timeline
		participation and experiences in climate adaptation and sustainable livelihood activities in Project Completion Report.		
Most of the climate change information/knowledge are very technical and not suitable for vulnerable/marginalized groups in coastal area, particularly women and traditional groups	● Diversify design and channels of information, education and communication materials/programs based on target audiences ● Provide facilitation and empowerment assistance for specific groups to ensure climate information can be conveyed correctly	● at least 3 different design and channels of IEC materials/programs are produced, dedicated for women and traditional groups ● 4 project facilitators trained and mobilized, enable them to convey climate change information to women and traditional groups	Included in budget Output 1.3; Output 2.1; Output 4.4; Output 5.1	Throughout the project
Climate change related hoaxes are often create more social insecurity	● Provide credible information sources for confirmation: BMKG, BPBD ● Provide counter hoaxes information to reduce social insecurity	● 1 set of communication materials (press releases, infographics, etc.) on climate - changes indicating credible source of information ● 1 set of capacity building materials to identify and counter climate changes related hoaxes	Included in budget Activity 2.1.1; 2.1.2.	Q3, Q6

Key Issues	Action	Target/Indicator	Budget	Timeline

ADAPTATION FUND

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