



ADAPTATION FUND

## ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY:

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**Country/Region:** Indonesia

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

**Thematic Focal Area:** Ecosystem-based Adaptation

**Implementing Entity:** Kemitraan (Partnership for Governance Reform)

**Executing Entities:** YAPEKA Consortium (YAPEKA, Penabulu Foundation and CTSS-IPB)

**AF Project ID:** AF00000301

**IE Project ID:**

**Reviewer and contact person:** Andrew Chilombo

**IE Contact Person:** Laode M. Syarif

**Requested Financing from Adaptation Fund (US Dollars):** 996,357

**Co-reviewer(s):** Aloke Barnwal

### Technical Summary

The project "Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea" seeks 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. It is designed around the following components:

Component 1: Knowledge Management (USD 164,500);

Component 2: Ecosystem- based Adaptation and Livelihood (USD 296,500);

Component 3: Capacity Building and Governance (USD 370,286).

Requested financing overview:

Project/Programme Execution Cost: USD 87,143

Total Project/Programme Cost: USD 918,429

Implementing Fee: USD 77,929

Financing Requested: USD 996,358

	<p>The proposal includes a request for a project formulation grant and/or project formulation assistance grant of USD 50, 000.</p> <p>The initial technical review raises several issues, such as the need to focus more on concrete adaptation activities, the lack of knowledge management activities, cost-effectiveness, local communities' participation, and gender assessment, among others, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.</p>
Date:	August 18, 2022

Review Criteria	Questions	Comments	Response
Country Eligibility	1. Is the country party to the Kyoto Protocol?	<b>Yes.</b>	
	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	<b>Yes.</b> Indonesia's surface water temperature has been rising; fuelling powerful tropical cyclones. With the increasing intensity of global warming, the intensity of extreme climate variability events such as El Niño and La Niña will increase as well. The country records loss in millions of dollars, including destruction to coastal ecosystems affecting socio-economic conditions of coastal communities.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	<b>Yes.</b> As per the Endorsement letter dated August 05, 2022.	
	2. Does the length of the proposal amount to no more than Fifty pages for the	<b>No.</b> The proposal and its annexes amount to 70 pages.	<b>Response CAR1 Response:</b> 49 pages.

	project/programme concept, including its annexes?	<b>CAR1:</b> Please reduce the number of pages to be within the 50-page limit, including annexes.	
	3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	<p><b>Not clear.</b></p> <p>The project includes quite a broad range of activities with a relatively small funding amount. Due to this, concrete results on ground may be limited.</p> <p><b>CR1:</b> Please consider reducing the number of activities to focus more on concrete interventions with potential to contribute to addressing the adaptation challenges in the proposed project areas.</p> <p>The project's main objective and title is ecosystem-based adaptation (EbA), but there are very limited resources allocated for this particular component. Nearly 40% of the budget is proposed to be used for capacity building (CB). While many CB activities will contribute to EbA, activities such as climate budget tagging, disaster preparedness, etc. deviates from the core focus of EbA. These are important interventions but deserve a more focused effort.</p> <p>There are a certain set of interventions which could have a</p>	<p><b>Response CR1:</b> See page 10-14 Project Components and Description.</p>

		<p>concrete impact if focused more on the project. For example, 3.1, 3.2, 3.3, 4.4 and 4.5 can be allocated more resources to implement sustainable and ecosystem-based livelihoods. Similarly, 5.6 and 5.7 look innovative and impactful. Activity 5.5. on Adaptation Action Plans also looks very strategic. However, the project should ensure that these plans are developed using an EbA approach. In this context, there seems to be an overlap between 5.5 and 1.2.</p> <p><b>CR2:</b> Please consider revising the project structure, components and activities with a more focused approach which builds around the EbA approach and with specific actions on nature-based solutions and building institutional capacity and knowledge around EbA. This will require resource re-allocation between soft and hard interventions. Currently, the component on capacity development (component 3 - \$370,286) has more resources than component 2 (EbA - \$296,500) that is expected to have more if it can focus on more concrete, hard interventions.</p>	<p><b>Response CR2:</b> See page 7, paragraph 20 Project ToC. See page 46-47: Project Budget.</p> <ul style="list-style-type: none"> <li>- Budget for Component 1 Knowledge Management 13%</li> <li>- Budget for Component 2 – ecosystem rehabilitation, management and livelihood: 58%</li> <li>- Budget for Component 3 Strengthening governance: 19%</li> </ul>
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	<p>4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p><b>Not clear.</b></p> <p>The project should distinguish beneficiaries in terms of people whose capacity is built and people who will benefit from the EbA interventions on ground. With a district level scale of the project and with more focus on implementing on-ground activities, the project has the potential to support more beneficiaries.</p> <p>Please refer to <b>CR1</b> above, having many activities spreads resources quite thinly. Consider strengthening the EbA concrete interventions to enhance the socioecological system that is affected in the proposed project area.</p> <p><b>CR3:</b> Please clarify the eligibility criteria for selecting beneficiaries. Further elaborate on the expected beneficiaries of each area, if possible, disaggregated by gender and youth. In addition, please revise this section to clearly describe the economic, social, and environmental benefits expected from each of the proposed activities. Also, please consider describing the main characteristics of the communities located in the selected area.</p> <p><b>CR4:</b> Please clarify if the beneficiaries are individuals or</p>	<p><b>CR3 Response:</b> See page 15-16 paragraph 45).</p> <p><b>CR4 Response:</b> See page 15 paragraph 45.</p>
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		households. The project can also estimate how much area of land can be covered under climate resilient planning.	
	5. Is the project / programme cost effective?	<p><b>Not clear.</b></p> <p>The proposal doesn't provide the required details to evaluate the cost effectiveness, it rather only states the methodology.</p> <p><b>CR5:</b> Please revise this section by providing a logical explanation of the selected approach and scope, as well as cost-effectiveness analysis compared to alternative adaptation measures.</p> <p>Please refer to <b>CR1</b> and <b>CR2</b> above. The overall approach of capacity building/governance, on ground EbA interventions and knowledge management is fine. However, the project can be a better value for money by focusing on interventions with tangible impacts instead of spreading the activities across a number of entry points.</p>	<b>CR5 Response:</b> See page 16-17, paragraph 48-50)
	6. Is the project / programme consistent with national or sub-national sustainable development strategies,	<p><b>Yes.</b></p> <p>The project mentions a number of strategies that it is consistent with.</p>	

	national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?		
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund??	<b>Yes.</b> All relevant laws have been listed and compliance is stated.	
	8. Is there duplication of project / programme with other funding sources?	<b>No.</b> The project will seek to build on lessons from past interventions.	
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	<b>Not clear.</b>  The Knowledge Management (KM) component has a number of interventions related to adaptation planning and capacity building which overlaps with the other two components. However, the KM component lacks specific knowledge management activities such as knowledge dissemination, knowledge repository platforms and learning.  <b>CR6:</b> Please further refine the Knowledge Management component in the project design (component 1) to focus on	<b>CR 6 Response:</b> See page 10, paragraph 21-27

		<p>knowledge generation, reposition and dissemination aspects.</p> <p><b>CR 7:</b> Please clarify the mechanisms of engaging with different stakeholders through Participatory Action Research (PAR) and Transdisciplinary (TD) – acknowledging the power differentials among different stakeholders.</p>	<p><b>CR 7 Response:</b> See Page 21, paragraph 73)</p>
	<p>10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p>	<p><b>No.</b> A consultative process took place; however, only limited to government agencies.</p> <p><b>CR 8:</b> Please provide additional details regarding the consultations undertaken with local communities and vulnerable groups, including women, with a summary of the outcomes. Please also clarify how their inputs, opinions, concerns and or needs have been captured and reflected in the project design.</p>	<p><b>CR 8 Response:</b> See table in page 22-24.</p>
	<p>11. Is the requested financing justified on the basis of full cost of adaptation reasoning?</p>	<p><b>Not clear.</b></p> <p><b>CR 9:</b> In light of the adaptation challenges to climate change in the proposed project areas, please demonstrate the adaptation reasoning by highlighting the differences between the 'without project' scenario and the 'with</p>	<p><b>CR9 Response:</b> See page 24, paragraph 78)</p>



		<p>project' scenario – this is better presented in table format.</p> <p><b>Please refer to CR 2 and CR 5 above.</b> With a limited funding the project is attempting to do too many things which deviates from the EbA approach and may not deliver tangible impact.</p>	
	12. Is the project / program aligned with AF's results framework?	<p><b>Yes.</b> The project is aligned with outcomes 1, 2, 3, 5, and 6.</p>	
	13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	<p><b>Not clear.</b></p> <p><b>CR 10:</b> Please consider restructuring the information in terms of economic, social, environmental, institutional, and financial sustainability.</p>	<b>CR 10 Response:</b> See page 25, paragraph 79-82.
	14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	<p><b>Partially.</b></p> <p>The project does not have substantive details regarding the gender context and that of other vulnerable groups. There is a social and gender inclusion plan that highlights some gender concerns.</p> <p><b>CR 11:</b> Please revise and provide a preliminary assessment of the gender context and that of other vulnerable groups in the project sites. A preliminary assessment providing some qualitative and quantitative data for gender roles, activities, needs, and available</p>	<b>CR11 Response:</b> See page 27-28, paragraph 86-90

		<p>opportunities and challenges or risks for men and women will be useful.</p> <p><b>CR 12:</b> Please include a table with potential risks, their risk levels and mitigation measures. Please ensure that activities from project implementation are screened against potential direct, indirect, transboundary, and cumulative impacts.</p> <p>Regarding conservation of biological diversity, climate change, pollution prevention and resource efficiency lands and soil conservation, additional information is required on the concrete activities for EbA – the additional information might inform the need for further assessment.</p> <p><b>CR 13:</b> Please provide additional information on the concrete EbA activities.</p>	<p><b>CR12 Response:</b> See table in Section III.C in page 31-34.</p> <p><b>CR13 Response:</b> See page 11-12, paragraph 30.</p>
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	<p><b>Yes.</b></p> <p><b>CAR 2:</b> Please revise figures throughout the document, currently the total of the components doesn't match the value stated on the cover page, nor the budget tables. There is a 1 USD discrepancy.</p>	<p><b>CAR2 Response:</b> See page 1, 8-9, 43-45, and 46-47.</p>
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total	<p><b>Yes.</b></p>	

	project/programme budget before the fee?		
	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	<b>Yes.</b>	
Eligibility of IE	4. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	<b>Yes.</b> Kemitraan is a National Implementing Entity.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	N/A AT CONCEPT STAGE	
	2. Are there measures for financial and project/programme risk management?	N/A AT CONCEPT STAGE	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	N/A AT CONCEPT STAGE	
	4. Is a budget on the Implementing Entity Management Fee use included?	N/A AT CONCEPT STAGE	
	5. Is an explanation and a breakdown of the execution costs included?	N/A AT CONCEPT STAGE	

	6. Is a detailed budget including budget notes included?	N/A AT CONCEPT STAGE	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	N/A AT CONCEPT STAGE	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	N/A AT CONCEPT STAGE	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	N/A AT CONCEPT STAGE	
	10. Is a disbursement schedule with time-bound milestones included?	N/A AT CONCEPT STAGE	



## PROJECT PROPOSAL TO THE ADAPTATION FUND

### PART I: PROJECT/PROGRAMME INFORMATION

Project Category	Small-Sized Project
Country	INDONESIA
Title of Project	<b>Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea.</b>
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 <u>99,714,357</u> .

#### I.A. PROJECT BACKGROUND AND CONTEXT

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

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<sup>1</sup> 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, Zulficar Yasin. 2015. A climate-informed, ecosystem approach to fisheries management. Marine Policy 57 (2015) 182–192.

<sup>2</sup> Indonesia Climate Change Sectoral Roadmap, 2010.

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

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

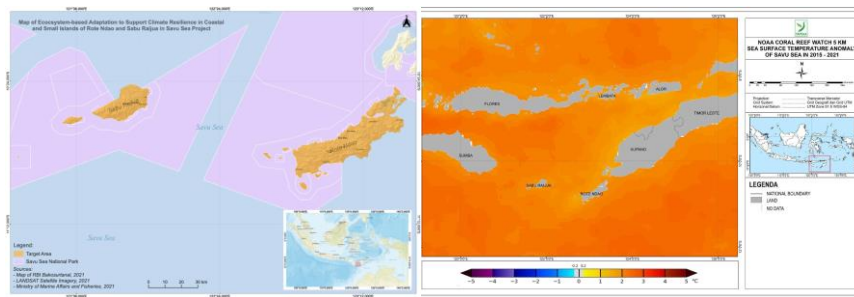


Figure 01 (left) Location in Rote and Sabu Island in Savu Seascape. Figure 02 (right). Distribution of temperature anomalies at Savu Sea, around Rote and Sabu, NTT (NOAA SSTA data 2015-2021, further analyzed and processed by YAPEKA).

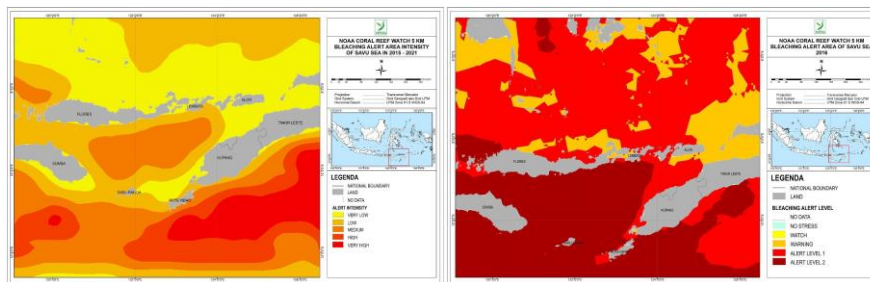


Figure 03 (left) Cumulative distribution and intensity of Coral Bleaching Alert (NOAA Bleaching Alert data 2015-2021, further analysed by YAPEKA); and Figure 04 (right) Coral Bleaching Alert 2106 during strong El Niño event (Data: NOAA, processed by YAPEKA)

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

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stress in the Sabu and Rote islands are becoming even more valuable as sources of coral larvae and fish spawning sources.

5. An increase in sea surface temperature will also cause the growth and development of mangroves to be disturbed. A decrease in rainfall by more than 15%; and an increase in SST above 0.1°C increases the risk of damage to mangrove ecosystem areas; while in NTT Province (including the Savu Sea) the decrease of rainfall is 8.7% and SST is 0.49°C. Higher sea surface temperature not only affects coral reefs and mangroves but will also cause cascading effects to the connected ecosystem through a chain of 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)<sup>3</sup>. 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.~~

6. In April 2021, Tropical Storm (TC) Seroja formed over the Savu Sea and hit the Rote and Sabu Islands. The storm is estimated to have caused over \$490.7 million in damages<sup>4</sup>. 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)<sup>5</sup>. 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<sup>6</sup>.

- ~~7. Coastal and marine ecosystem damage cause consequences of ecosystem service losses and trigger negative cascading impacts on the socio-economic condition of coastal communities including livelihood system disruption which may also impair progress of stunting reduction<sup>7</sup> 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<sup>8</sup>~~

~~8.7.~~

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<sup>3</sup> Erwin Mulyana, M. Bayu Rizky Prayoga, Ardila Yananto, Samba Wirahma, Edwin Aldrian, Budi Harseyo, 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.

<sup>4</sup> "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.

<sup>5</sup> 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

<sup>6</sup> Data from the district government of Rote Ndao <berikut-data-sementara-hasil-rekapan-akibat-badai-seroja.php>.

<sup>7</sup> Charles W Schmidt. 2019. The Future of Stunting: Potential Scenario of Climate Change. <EHP5049>

<sup>8</sup> <prevalensi-stunting-di-atas-30-persen-15-kabupaten-di-ntt-berkategori-merah>.

8. In addition to climate impact as described above, anthropogenic factors such as sand quarry, destructive fishing and coastal resource use, as well as overlapping land use on coastal areas have triggered more risks for coastal ecosystems and communities. Limited literacy and access to climate information of coastal communities are also other factors that increase the impact. Therefore, any damage and other anthropogenic stresses are in dire need to be compensated and there is an urgency to implement strategies that can improve socio-ecological resilience of coastal areas of Rote and Sabu Islands in Savu sea.

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### Project Target Location

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9. The project will focus its work on coastal and small islands of Rote Ndao and Sabu Raijua districts in the Savu Sea. Rote islands (total area of 1.280,10 km<sup>2</sup>; under the administration of Rote Ndao district) and Sabu-Raijua islands (area: 459.6km<sup>2</sup>; 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)<sup>9</sup> in Savu Seascape. Furthermore, Bappenas in 2021 also identified the two islands as top priority for climate resilience actions<sup>10</sup>.

10. Livelihood of coastal and small island communities in Rote and Sabu islands in Savu Seascape depends on both coastal and marine ecosystem resources as well as agriculture activities. With a population of 143,764 in Rote (2021) and 43,984 in Sabu (2015), about 28% and 29.48% are poor families respectively. Coastal communities in Rote and Sabu islands depend on small-scale fishery activities including seaweed cultivation and traditional wisdom to utilize coastal resources such as Hoholok/Papadak (traditional wisdom in utilizing natural resources), *makan meting* (gleaning on the coral reef flat area collecting small fishes and mollusks during low tide), and *Dea Batu* (traditional method of collecting fishes trapped by stones on the coastal areas); while communities of Sabu islands are more depend on agriculture practices.

11. Project interventions will be at Rote Ndao and Sabu Raijua districts and some will be at provincial level (NTT Province), as coastal and small islands as well as marine sectors are within coordination of the provincial government. The project will also select several target coastal villages in the two districts to focus its activities at community level. Control villages will be selected as well. Selection of target and control villages will be based on updated coastal vulnerability and risk data and information, as well as based on coordination with the district government.

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

12. Climate vulnerability of the coastal areas of Rote and Sabu islands in Savu Sea depends on adaptive capacity and sensitivity of the socio-ecological system<sup>11</sup>. YAPEKA and the consortium have worked in

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<sup>9</sup> Ditjen PPI KLHK, 2015. Sistem Informasi Data Indeks Kerentanan.

<sup>10</sup> Bappenas, 2021. Daftar Lokasi & Aksi Ketahanan Iklim.

<sup>11</sup> 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.



NTT since 2015, particularly at Rote Ndao and Sabu Raijua since 2020, where interventions have been focused on climate change-related topics on coastal and small island scenarios, where coastal and terrestrial landscape-seascapes are inseparable. Below are factors influencing adaptive capacity and sensitivity of socio-economic systems in Rote and Sabu islands that have been identified that will be addressed in this project proposal:

13. **Limited capacity of local governments and coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations.** Although some data and information on climate risks and vulnerability are available, these data are not detailed and specific to the islands. The government of Indonesia has a baseline data in 2018 on Coastal Vulnerability Index (CVI) at the national scale along the coastline of islands in the Coral Triangle. However, the CVI data did not have significant changes in the projection period during 2020-2034 and 2030-2045 due to limited and more detailed data as well as limited modelling analysis methods<sup>12</sup>. 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. Poor knowledge management on climate vulnerability and risks as well as adaptation measures also becomes a challenge for the local government and coastal communities in improving climate adaptive capacity of the socio-ecological systems.
14. **Degrading conditions of coastal ecosystems after the TC Seroja.** The TC Seroja has significant physical impact on the coral reefs in the coastal areas of Rote and Sabu islands<sup>13</sup>. 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 and protection is urgently required to improve climate resilience of the ecosystems. Ecosystem-based Adaptation (EbA) is one of the options that can improve adaptive capacity and can also help to reduce future climate hazards.
15. **Limited knowledge and practices of sustainable livelihood options.** Most coastal communities depend on small-scale fishery for their livelihood with limited knowledge to sustainably manage and develop their businesses as well as develop other sustainable livelihood options, which can decrease their social system's long-term resilience. The project will support the development of livelihoods and community enterprises to improve sustainable livelihood opportunities and reduce the degradation pressure on coastal ecosystems.
16. **Limited coastal and marine ecosystem service management practices.** Although large parts of the coastal and marine systems of Rote and Sabu Islands are managed as a Marine National Park of Savu Sea, the extensive area of the marine national park (around 3.5 million Ha) and limited resources of the marine park authority have caused limited coastal and marine ecosystem service management efforts. At the local level, the marine and fishery as well as forestry sectors are also currently managed and coordinated under the provincial government, and with very limited management authority at district level. These sectors and governance layers are often disconnected. At village/community level, some local community groups have traditional wisdom to manage their coastal and marine resources. Therefore, the project will also be in a position to improve coordination and information pipeline between layers of governance to improve the climate adaptation decision-making process. These complexities of coastal and marine management systems require an integrated coastal and marine management (ICM) approach to improve adaptive capacity and climate resilience. At provincial level a

<sup>12</sup> Ditjen PPI KLHK. 2021. Profil Kerentanan Perubahan Iklim Kawasan Segitiga Karang Indonesia.

<sup>13</sup> BKKPN Kupang. 2021. Coral Reef Condition Survey in TNP Laut Sawu.

multi stakeholder forum: Council on Marine Conservation of NTT Province (DKPP NTT) has been formed to strengthen stakeholders involvement and vertical and horizontal integration among (national, regional and local) authorities and sectors are key factors of the ICM process.

**17. Limited capacity of the local and village governments to reduce risks associated with climate-induced socio-economic and environmental losses.** This is reflected in the lack of adaptation action plans and climate adaptation measures implemented by the local and village governments. Climate adaptation is also not sufficiently addressed by the local government's policies and development plans. Another challenge in implementing climate adaptation activities is the lack of local government and village capacity to allocate budgets for climate adaptation measures. The pandemic Covid-19 also has shifted the allocation of the provincial, district and village budgets for the health sector in the last two years. 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.

#### **Project Target Locations**

##### **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 km<sup>2</sup>; under the administration of Rote Ndao district) and Sabu Raijua islands (area: 459.6km<sup>2</sup>; 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)<sup>14</sup> in Savu Seascape. Furthermore, Bappenas in 2021 also identified the two islands as top priority for climate resilience actions<sup>15</sup>.

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 43,084 in Sabu (2015), about 28% and 20.48% 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 *Hoholek/Papadek* (traditional wisdom in utilizing natural resources), *makan meting* (gleaning on the coral reef flat area collecting small fishes and mollusks during low tide), and *Deo Dotu* (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.**

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<sup>14</sup> Ditjen PPI KLHK, 2015. Sistem Informasi Data Indeks Kerentanan.

<sup>15</sup> Bappenas, 2021. Daftar Lokasi & Aksi Ketahanan Iklim.

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<sup>16</sup>. VAPEKA 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 on coastal and small island scenarios, where coastal and terrestrial landscape seascapes are inseparable. Below are factors influencing adaptive capacity and sensitivity of socio-economic systems in Rote and Sabu islands that have been identified that will be addressed in this project proposal:

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<sup>17</sup>. 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.

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<sup>18</sup>. 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 2.5 million Ha) and limited resources of the marine park authority have caused limited coastal and marine ecosystem service management efforts. At the local level, the marine and fishery as well as forestry sectors are also currently managed and coordinated under the provincial government, and with very limited management authority at district level. These sectors and governance layers are often disconnected. At village/community level, some local community groups have traditional wisdom to manage their coastal and marine resources. Therefore, the project will also be in a position to improve coordination and information pipeline between layers of governance to improve the climate adaptation decision-making process. These complexities of coastal and marine management systems require an integrated coastal and marine management (ICM) approach to improve adaptive capacity and climate resilience. At provincial level a multi-stakeholder forum: Council on Marine Conservation of NTT Province (DKPP-NTT) has been formed to strengthen stakeholders involvement and vertical and horizontal integration among (national, regional and local) authorities and sectors are key factors of the ICM process.

#### **9.1 Limited capacity of the local and village governments to reduce risks associated with climate-induced**

<sup>16</sup> 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.

<sup>17</sup> Ditjen PPI KLHK. 2021. Profil Kerentanan Perubahan Iklim Kawasan Segitiga Karang Indonesia.

<sup>18</sup> BKKPN Kupang. 2021. Coral Reef Condition Survey in TNP Laut Sawu.

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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.

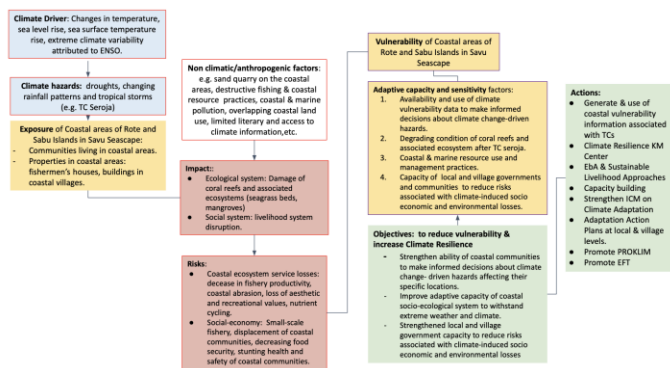


Figure 05. Climate-Impact Chain in Rote and Sabu islands in Savu Seascape.

## I.B. PROJECT OBJECTIVES

18. This project goal is to improve the resilience of coastal areas and small islands of Savu Sea against extreme weather and climate variability events by strengthening the knowledge management and capacity of local government and communities in implementing an Ecosystem-based Adaptation (EbA) and sustainable livelihood.

19. Objectives of this project are:

1. **Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options** ~~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

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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.

- **Strengthened the enabling policies and institutions to improve the management and climate budgeting of coastal ecosystems—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.

26. 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 :

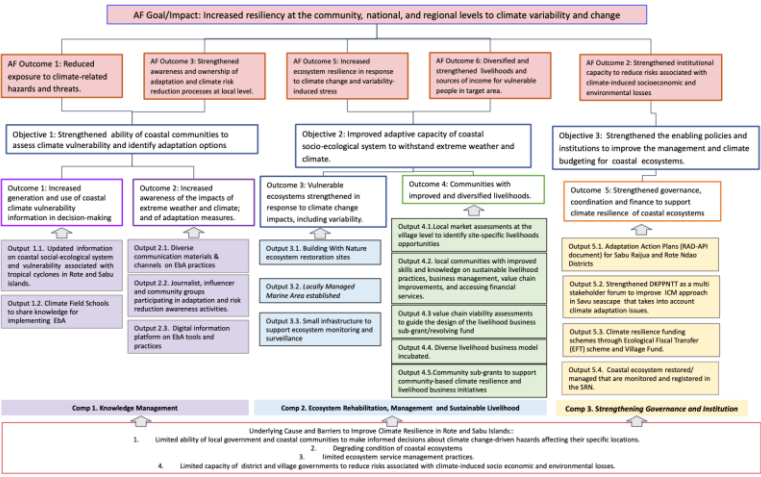


Figure 1. The Theory of Change (TOC)

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## I.C. PROJECT COMPONENTS AND FINANCING

Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
1. Knowledge Management	<ul style="list-style-type: none"> <li>Output 1.1. <u>Updated information on coastal social-ecological system and vulnerability associated with tropical cyclones in Rote and Sabu islands.</u> <del>Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands.</del></li> <li>Output 1.2. <u>Climate Field Schools to share knowledge for implementing EbA</u></li> <li>Output 1.2. <del>District Adaptation Action Plans that use updated CVI data.</del></li> <li>Output 1.3. <del>Coastal village communities with improved knowledge and skills in accessing and interpreting climate extreme weather information and in organizing disaster preparedness and response plans.</del></li> </ul>	Outcome 1: Increased generation and use of coastal climate vulnerability in decision-making	USD <del>62,143</del> 60,000
	<ul style="list-style-type: none"> <li>Output 2.1. <u>Diverse communication materials and channels on EbA practices</u></li> <li>Output 2. <del>2.1.</del> Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.</li> <li>Output 2.3. <u>Digital information platform on EbA tools and practices.</u> <del>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.</del></li> </ul>	Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures	USD <del>55,714</del> 104,500
2. Ecosystem-based Adaptation and Livelihood.	<ul style="list-style-type: none"> <li>Output 3.1. <u>Building With Nature ecosystem restoration sites</u> <del>Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities.</del></li> <li>Output 3.2. <u>Locally Managed Marine Area (LMMA)</u></li> <li>Output 3.3. <u>Small infrastructures to support ecosystem monitoring and surveillance</u></li> <li><del>Communities with improved knowledge and skills in coastal</del></li> </ul>	Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability.	USD <del>397,000</del> 177,571

Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
	<p><del>ecosystem restoration (mangroves, seagrass, and coral reef) and conservation.</del></p> <ul style="list-style-type: none"> <li><del>Output 3.3 Rainwater harvesting device installed. Communities with improved knowledge and skills in community-based biodiversity/conservation monitoring.</del></li> </ul>		
	<ul style="list-style-type: none"> <li>Output 4.1. Rapid local market assessments at the village level to identify site-specific livelihoods opportunities</li> <li>Output 4.2. local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services</li> <li>Output 4.3 value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund</li> <li>Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation</li> <li>Output 4.5. <u>Community sub-grants to support community-based climate resilience and livelihood business initiatives</u></li> </ul> <p><del>Community livelihood subgrants.</del></p>	Outcome 4: Communities with improved and diversified livelihoods.	USD <del>143,214</del> <u>118,929</u>
3. <u>Strengthening Governance and Institution Capacity Building and Governance</u>	<ul style="list-style-type: none"> <li><u>Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.</u></li> <li><del>Output 5.1. Assessment on capacity of local government in implementing the national Climate Resilience Policy.</del></li> <li><del>Output 5.2. Local government staff with improved knowledge and skills to conduct climate budget tagging for climate resilience</del></li> <li><del>Output 5.3. Local government and village staff with improved competency in disaster mitigation and climate adaptation in coastal areas.</del></li> <li>Output 5. <u>24</u>. Strengthened DKPP NTT <u>Province</u> as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issues.</li> <li><del>Output 5.15. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.</del></li> </ul>	Outcome 5: <u>Strengthened governance, coordination and finance to support climate resilience of coastal ecosystems.</u>  <del>Local and village government with improved capacity and finance to implement adaptation measures</del>	USD <del>179,571</del> <u>1370,286</u>

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Project/ Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US\$)
	<ul style="list-style-type: none"> <li>● <del>Output 5.36.</del> Climate resilience funding through Ecological Fiscal Transfer (EFT) scheme.</li> <li>● <del>Output 5.4. Rehabilitated/conserved coastal ecosystems that are monitored and registered in the SRN.</del></li> <li>● <del>Output 5.7. Coastal villages participating in the PROKLIM.</del></li> <li>● <del>Output 5.8. Guidelines for Village Facilitators to implement climate adaptation activities at village level</del></li> </ul>		
5. Project Execution cost			USD 87,143
6. Total Project/Programme Cost			USD <del>924,786</del> 18,429
7. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			USD <del>74,929</del> 747,929
<b>Amount of Financing Requested</b>			<b>USD 996,357</b>



## 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

### II.A. PROJECT COMPONENTS AND DESCRIPTION.

#### Component 1. Knowledge Management.

27. 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.

28. This component will support the achievement of Project Objective 1: Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options ~~Strengthened ability of coastal communities to make informed decisions about climate change-driven hazards affecting their specific locations.~~

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

- **Project Outcome 1: increased generation and use of coastal vulnerability and adaptation options in decision-making to increase climate resilience** that is aligned with the Adaptation Fund Output 1.1: Risk and vulnerability assessments conducted and updated.
- **Project Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures** that is aligned with the Adaptation Fund Output 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.

— 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

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determine the coastal vulnerability index (CVI)<sup>19</sup>. To increase generation and use of coastal climate vulnerability information and adaptation options in decision-making, the project will conduct an action research to assess the coastal socio-ecological and vulnerability assessment in association with tropical cyclones. Findings of the research will be used in identifying ecosystem-based adaptation options to be implemented under the Component 2 and will be used to update coastal vulnerability data in Rote and Sabu islands for preparing the district adaptation action plans (RAD-API) under the Component 3). The project will also establish field schools at village/sub-district level to share knowledge on climate vulnerability and Ecosystem-based Adaptation practices for the local communities. The establishment of field schools will be coordinated with the local government agencies and local universities to set up field school curriculum, training modules and materials, and to provide expertise and extension workers for conducting training activities. 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.

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

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#### 25. Project outputs of these activities are:

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- Output 1.1. Updated information on coastal social-ecological system and vulnerability associated with tropical cyclones in Rote and Sabu islands.
- Output 1.2. Climate Field Schools to implement EbA.

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- 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.

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**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.

To increase awareness of the impacts of extreme weather and climate; and of ecosystem based adaptation, 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.**

<sup>19</sup> 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.

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.

26. To increase awareness of the impacts of extreme weather and climate and of ecosystem-based adaptation as an option to increase climate resilience, the project will develop various awareness/communication materials on the impact of extreme weather and climate and EbA practices targeted for coastal communities including young generations. Communication materials will be shared in the form of but not limited to infographics for social media and posters. The project will also facilitate journalists and young influencers participating in project activities and media trips to highlight EbA and sustainable livelihood practices. The project will also develop a digital information platform to share EbA tools and practices especially for the coastal and small island context in Indonesia.

27. Project output of these activities;

- Output 2.1. Diverse communication materials & channels on climate impacts and EbA practices
- Output 2.2: Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.
- Output 2.3. Digital information platform on EbA tools and practices

## Component 2. Ecosystem Rehabilitation, Management and Sustainable Livelihood

### Ecosystem-based Adaptation and Livelihood

28. 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 nature-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 and sustainable livelihood; 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 resources, and ability to influence core institutions<sup>21</sup>

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

- **Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including**

<sup>20</sup> USAID. 2018. Ecosystem-based Adaptation and Coastal Population.

<sup>21</sup> ADB. 2008. Sustainable Livelihood.

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**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.

- **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.**

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30. To strengthen vulnerable coastal ecosystems in response to climate change impacts, the project will implement Ecosystem-based Adaptation, by restoring degraded coastal ecosystems using a Building with Nature (BWN) approach<sup>22</sup>; the project will also facilitate locally managed marine areas (LMMA) to ensure conservation and protection of coastal ecosystems. Both BWN and LMMA will be focused on four coastal ecosystem landscape units in Rote and Sabu islands, which will involve participation of 9 villages of Loaholu and South-West Rote sub districts in Rote island and 5 villages of West Sabu and East Sabu sub districts in Sabu island. BWN ecosystem restoration and LMMA in these villages will be aligned with Indonesia's PROKLIM village program. PROKLIM is a national-wide program managed by the Ministry of Environment and Forestry in order to increase the involvement of the community and other stakeholders to strengthen adaptation capacity to the impacts of climate change and reduce GHG emissions. Establishment of PROKLIM villages will follow the government guideline on PROKLIM Program (Directorate General for Climate Change Regulation/Perdijen PP No.1,2017).

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31. Building with nature ecosystem restoration will include the following steps: 1) initiation phase, 2) planning and design phase, 3) construction phase and 4) post construction phase. Targeted degraded ecosystems to be restored include mangrove, coral reefs and seagrass ecosystems. Mangrove restoration activities will involve mangrove stress identification and removal, natural vegetation, direct planting, and erosion control; Coral reef rehabilitation will involve installing coral gardens and ensuring natural regeneration of corals; and seagrass restoration will involve direct planting, trapping sediment and managing sea tides. Among the features of the BWN hybrid infrastructures are optimization of local materials and traditional knowledge.

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32. Establishment of LMMA will be facilitated by setting community-based monitoring and surveillance group (POKMASWAS) network or establishing agreement on suitability of activities in using marine zone (Persetujuan Kesesuaian Kegiatan Pemanfaatan Ruang Laut/PKKRL) at village or inter-village/sub-district level. At village level, LMMA activities will be integrated with the village annual/mid term development plan.

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33. The project will construct small infrastructures for ecosystem monitoring and ecotourism facilities, such as monitoring tower, information center, and mangrove track in selected sites. A feasibility study will be conducted prior to the construction works. These infrastructures are to support community-based monitoring and surveillance activities as well as for ecotourism facilities. Ecotourism is one of EbA options that can also provide benefits for both socio-ecological systems.

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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.

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<sup>22</sup> Wilms, T., Van der Goot, F., Tonneijck, F., Nurhabni, F., Sembiring, L. (2020). Building with Nature Approach. Building with Nature to restore eroding tropical muddy coasts. Ecoshape technical report, Dordrecht, The Netherlands

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, and (4) minor hydrological repair with planting or human assisted natural revegetation, and (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 Building with Nature hybrid infrastructures are optimization of local materials and traditional knowledge.

Both Building with Nature infrastructures and LMMA will be integrated in PROKLIM villages. LMMA will also strengthen the existing. 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:

- Output 3.1. Building With Nature ecosystem restoration implemented Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities.
- Output 3.2. Locally Managed Marine Area (LMMA) established 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.

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

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PROKLIM villages to reduce the degradation pressure on coastal ecosystems and improve sustainable ecosystem-based livelihood opportunities. This holistic approach to sustainable livelihoods focuses on village-level natural resource management planning, strengthening livelihood activities, and increasing enterprise opportunities. Project activities will include: 1) rapid local market assessments at the village level to identify site-specific livelihoods opportunities, 2) Training on sustainable production practices, business management, value chain improvements, and accessing financial services, 3) value chain viability assessments to guide the design of the livelihood business sub-grant/revolving fund, 4) livelihood business incubation, technical assistance to livelihood businesses during community proposal preparation and throughout business implementation, 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.

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35. In addition, the project will provide and 5) provision of community sub-grants to support community-based climate resilience and livelihood business initiatives. Selection of community-based climate resilience and livelihood business initiatives will be based on climate priority action plans developed at village level in targeted PROKLIM villages. 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<sup>23</sup> 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.

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36. All activities in this component will take into account gender-transformative approaches<sup>24</sup> i.e. gender inclusive, gender awareness and gender strategy, and will involve relevant district government agencies to ensure local government support and sustainability.

37. Project outputs under this component will include: of the above livelihood activities will include:

- Output 3.1. Building With Nature ecosystem restoration implemented, Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities.
- Output 3.2. Locally Managed Marine Area (LMMA) established
- Output 3.3. Small infrastructure to support ecosystem monitoring and surveillance
- Output 4.1. Rapid local market assessments at the village level to identify site-specific livelihoods opportunities.
- Output 4.2. Local communities with improved skills and knowledge on sustainable production practices,

<sup>23</sup> Lawless, S., Doyle, K., Cohen, P.J., Eiksson, J., Schwarz, A.M., Teieli, 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

<sup>24</sup> Lawless, S., Doyle, K., Cohen, P.J., Eiksson, J., Schwarz, A.M., Teieli, 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



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 community sub-grants to support community-based climate resilience and livelihood business initiatives ~~livelihood business sub-grants to community groups.~~

### Component 3. **Strengthening Governance and Institution** ~~Capacity Building and Governance.~~

38. 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.**

39. Project Outcome in this component is:

**Outcome 5: Strengthened governance, coordination and finance to support climate resilience of coastal ecosystems.** ~~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.

40. This component will ensure integration of EbA implementation in Rote and Sabu islands with the districts' Adaptation Action Plans (RAD-API). Currently, both Rote Ndao and Sabu Raijua do not have updated adaptation action plans and climate adaptation issues are not integrated in the district development plans. The project will facilitate multi stakeholder forums at district level and provide technical assistance to prepare the RAD-API documents. The socio-ecological and climate vulnerability assessment results from the Component 1 will also be used in preparing the RAD-API document.

41. At provincial level, the project will strengthen the Integrated Coastal Management of Savu Seascape, by revitalizing and strengthening coordination between stakeholders in the DKPP-NTT (Dewan Konservasi Perairan Provinsi Nusa Tenggara Timur, a multi-stakeholder forum on marine conservation of NTT province). It aims to provide a better context to benefit from synergies and to level out inconsistencies across different policies and sectors. In this perspective stakeholders, involvement and vertical and horizontal integration among authorities and sectors are key factors of the ICM process. The activity will prepare a policy brief on climate resilience and implementation of EbA as adaptation measures in NTT and facilitate a workshop to address the policy brief's recommendations in the context of integrated coastal management of the Savu Sea.

42. To strengthen financial support for the climate resilience in Rote and Sabu districts, the project will provide technical assistance and facilitate the development of an ecological Fiscal Transfer (EFT) scheme. Ecological Fiscal Transfer is one of the government climate funding options that can support adaptation measures at district and village levels. An ecological fiscal transfer policy is needed to improve the ecological governance system and financial relations between the central government and local governments, including village governments in managing biodiversity and the environment. The EFT scheme to be developed will be performance-based to areas that perform well in implementing climate adaptation measures and ecosystem management in coastal areas. The EFT scheme will be developed based on the regulation framework on Regional Financial Management especially regarding the financial

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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.

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43. The project will also strengthen the management of rehabilitated and conserved/protected coastal ecosystems at village level by strengthening the capacity of community-based monitoring and surveillance through training on monitoring of ecosystems as well as socio-ecological impacts, and provision of monitoring and surveillance equipment. The project will also register the rehabilitated and conserved/protected sites to the national registry system (SRN) on climate change control.

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To achieve the outcome, the project will conduct the following activities:

44. Project outputs of component 3 will include:

- Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts.
- Output 5.2. Strengthened ICM approach in Savu seascape that takes into account climate resilience issues.
- Output 5.3. Climate resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.
- Output 5.4. Rehabilitated/conserved coastal ecosystems that are monitored and registered in the SRN.

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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<sup>25</sup>. 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 Peraliran Provinsi Nusa

<sup>25</sup> 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).



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.

5. ~~Facilitate a series of workshops to prepare Adaptation Action Plans (RAD-API document)<sup>26</sup> 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 PROKLIM Program. PROKLIM is a national wide program managed by the~~

<sup>26</sup> ~~The Ministry of Environment and Forestry Regulation No. P33, 2016 on a Guideline to Prepare Climate Change Adaptation Actions~~

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 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

45. The project will impact ca. 17,383 beneficiaries (individuals living in 5 villages of Rote Ndao and 5 villages in Sabu Raijua) as users of the coastal ecosystem's goods and services distributed in the 30.3 km of coastline. This figure will include:

- Direct beneficiaries from EbA implementation in 5 villages of Rote and 5 villages in Sabu are estimated at 15% of the total population: 2,607 individuals (1,180 male and 1,427 female) and around 18% of the figure are youth (469 individuals).
- Direct beneficiaries from capacity building activities: 900 individuals (estimate: 630 male and 270 female) and around 18% of the figure are youth (162 individuals).

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 at district level.

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

<u>Activity</u>	<u>Climate Change Benefit</u>	<u>Environmental Benefit</u>	<u>Social Benefit</u>	<u>Economic Benefit</u>
<u>EbA (BWN ecosystem restoration, LMMA)</u>	<u>Prevent climate hazards such as storm surge, floods.</u>	<u>Conserve environmental services.</u>	<u>Preserve traditional practices in managing coastal resources, environmental education, health and wellbeing, improve cohesion among communities and stakeholders.</u>	<u>Sustainable fishery resources, and other environmental services that can be monetized.</u>

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<u>Activity</u>	<u>Climate Change Benefit</u>	<u>Environmental Benefit</u>	<u>Social Benefit</u>	<u>Economic Benefit</u>
<u>Sustainable Livelihood activities (e.g. ecotourism, fishery)</u>	<u>Increase community resilience.</u>	<u>Sustainable use of coastal resources, reduce threats to coastal ecosystems.</u>	<u>Reduce poverty and inequality by generating employment among poor households, and improve food security.</u>	<u>Diverse income generating activities, more secure income for coastal communities.</u>
<u>Capacity building activities (Field school training, Participatory action research, FGDs)</u>	<u>Increase community adaptive capacity to respond to climate change.</u>	<u>Improve knowledge and skills in managing coastal resources.</u>	<u>Improve capacity of communities and cohesion among communities and stakeholders.</u>	<u>Improve knowledge and capacity in livelihood/developing businesses</u>
<u>Development of Adaptation Action Plans, ICM &amp; EFT</u>	<u>Robust planning to address climate issues; support funding on climate resilience activities..</u>	<u>Improve management of coastal and marine resources</u>	<u>Improve cohesion and coordination among stakeholders;</u>	<u>Provide information on resources to develop livelihood and economy.</u>

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

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**

46. 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**

47. 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

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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.
- 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.

## II. C. COST EFFECTIVENESS

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

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

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

	Breakwater using geo tube	Proposed EbA Project
Total cost	\$9,900,000.00	\$999,714.00
Protection benefit	Relatively quick to achieve when the construction ends	Relatively slow, following natural growth pattern
Materials	Synthetic fabrics, brought from outside, require large amount of materials to fill geo tube	Mostly local, slowly accumulate sediments and biomass

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<u>Carbon efficiency</u>	<u>High emission from transportation of materials</u>	<u>Relatively low emission, able to absorb carbon</u>
<u>Support provision of ecosystem services</u>	<u>Almost none, breakwater will drastically change ecosystem characteristics</u>	<u>Suitable with ecosystem characteristics</u>
<u>Socio-cultural viability</u>	<u>Abrupt change to livelihood system, potential harm to local values and create cascading impacts</u>	<u>Based on local livelihood system shaped by ecosystem characteristics</u>
<u>Economic retention</u>	<u>High leakage as the materials coming from outside</u>	<u>Low leakage, materials are locals</u>

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

Cost effectiveness of the Project will be calculated using the Economic Rates of Return (ERRs) method<sup>27</sup> 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

51. **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.

52. **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

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<sup>27</sup> ~~MCC Economic Rate of Return - err~~

Environment and Forestry Regulation No. P.33, 2016 about Guidelines on Climate Adaptation Action. This project will provide inputs for the Climate Adaptation Plan.

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53. **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.

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54. **Vulnerability Index Data Information System (SIDIK; 2015) developed by Adaptation Directorate, Directorate General of Climate Change Control, Ministry of Environment and Forestry.** Based on the vulnerability index, NTT province has a relatively high vulnerable status, including Rote Ndao and Sabu Raijua districts.

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55. **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.

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56. **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).

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57. **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.

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58. **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.

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59. **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.

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60. **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.

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## II.E. COMPLIANCE WITH NATIONAL TECHNICAL STANDARDS

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

### 61. Biodiversity Conservation and Sustainable Management of Living Natural Resources:

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

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### 62. 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.

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### 63. 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.

#### 64. 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).

65. 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).

#### 66. 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.

#### 67. 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

68. 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.

69. The Government of Indonesia through the Indonesian 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

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and sustainable use of the Savu Sea by addressing climate adaptation to strengthen integrated coastal management approach.

70. 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.

71. Voices for Just Climate Action (VCA) Project has been implemented since 2021 by NGO Adaptation Coalition led by Penabulu Foundation and YAPEKA and funded by HIVOS in East Nusa Tenggara (East Sumba, Rote Ndao and Lembata Districts). The project objective is civil society groups including climate actors are recognized and supported as innovators, facilitators and advisors that are empowered and become strategic government partners; and project activities are focused on advocacy and awareness. This project will be complementary to the proposed project by engaging social society groups in raising awareness of climate adaptation issues.

## II.G. LEARNING AND KNOWLEDGE MANAGEMENT

72. Component 1 Knowledge Management of this project focuses on knowledge generation, reposition and dissemination aspects. Main outputs from this component will be for generating information and knowledge, repository of the knowledge and for using and sharing the knowledge for practices.

73. Project activities in this component will include Participatory Action Research (PAR) on socio-ecological system assessment and climate vulnerability in Rote and Sabu islands, which will update data and information to be used for developing climate adaptation action plans (RAD-API) at district level and for developing a policy brief on Integrated Coastal Management at provincial level in the Component 3. The participatory action research itself will include focus group discussions of multi stakeholders at district and provincial levels, and adopt a transdisciplinary approach with the involvement of scientists from various disciplines, and government staff, conservation and community development practitioners and community.

74. In Component 1, the project will also establish climate field schools at village/sub district level to share knowledge and provide training on climate vulnerability and Ecosystem-based Adaptation practices - particularly on Building with Nature approach for ecosystem restoration and on Locally Managed Marine Area (LMMA) for local communities. Establishment of field schools will involve expertise from the local university and the local government agencies at district level. Local communities participating in the training program will be involved in ecosystem rehabilitation activities and will become conservation cadres in facilitating the LMMA. Community groups from a village can share their lessons learned in implementing ecosystem restoration and LMMA to other community groups in other villages.

75. The project will also produce various communication materials on EbA and sustainable livelihood, and channel the communication materials through various media both digital (such as social media) and printed media mainstreams, as well as through information centers managed by BKKPN Kupang and local government. In addition, the project will facilitate media visits for journalists and influencers to project's sites to capture lessons learned from ecosystem restoration, LMMA and livelihood activities facilitated by the project.

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76. The project will develop a digital information platform (website base) as a knowledge repository platform and to share knowledge, lessons learned and tools particularly on EbA practices in small islands. The digital information platform will be maintained by BKKPN Kupang as the authority for the Savu Sea Marine National Park in collaboration with YAPEKA.

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.

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## II.H. CONSULTATION PROCESS

77. Consultative process has been conducted with stakeholders including especially government agencies at national and sub national levels, as well as women's groups and vulnerable communities as described below:

Concern, needs	Inputs and opinion	Notes on Project's Response
<u>Sub-Director of Climate Vulnerability Identification and Analysis, The Directorate General of Climate Change Control, the Ministry of Environment and Forestry (July 1, 2022).</u>		
<u>Need to ensure that the project proposal should take into account government's policies and strategic planning on climate change.</u>	<u>The project is expected to have contributions/recommendations at national level particularly on climate adaptation strategy for the coastal area, small islands and marine sector.</u>	<u>The project is in line with the GOI policy on climate resilience and at national level will contribute to replicate PROKLIM and registering the project's site in the SRN.</u>
<u>Agency for Marine National Conservation Area (BKKPN) Kupang</u>		
<u>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.</u>	<u>The project can improve the adaptive capacity of the ecosystems as well as coastal communities. BKKPN Kupang also encourages sustainable utilisation of coastal and marine resources by local communities.</u>	<u>The project activities will include coastal ecosystem restorations and encourage sustainable livelihood of coastal communities based on marine resources.</u>
<u>Climate Adaptation Forum at NTT Province (June 29, 2022)</u>		

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<u>The forum is concerned about the implementation of the PROKLIM (climate village) program</u>	<u>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.</u>	<u>The project activities at village level will be in line with the PROKLIM program, especially in integrating coastal ecosystem rehabilitation, LMMA and livelihood activities into village development planning.</u>
<u>Climate Adaptation Multi Stakeholder Forum at Rote District. (May 31, 2022)</u>		
<u>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.</u>	<u>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.</u>	<u>The project will also facilitate the development of an EFT scheme to ensure financial support for climate adaptation activities.</u>
<u>District agency for Environment, Rote Ndao (May 31, 2022)</u>		
<u>The agency has a mandate to decrease greenhouse gas emission in addition to climate adaptation.</u>	<u>Restoration of the mangrove ecosystem as an ecosystem-based adaptation practice will also have potential for carbon sequestration and decrease greenhouse gas emission.</u>	<u>Project activities will include EbA practices including mangrove restorations and management. This will have environmental co-benefits in reducing GHG emission.</u>
<u>District Government of Sabu Raijua (May 24, 2022)</u>		
<u>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.</u>	<u>It is expected that the project will focus on sustainable use of coastal ecosystems.</u>	<u>The project will focus on rehabilitating and managing coastal ecosystems including in Sabu; The project also take into account ecotourism activity as part of Eba and to improve community livelihood.</u>
<u>Women's group in Rote Multi Stakeholder Forum (May 21, 2022)</u>		
<u>Women's roles are limited and constrained by unjust gender proportion; male is dominating the group activities (i.e., Mebba, Lobo Rai village)</u>	<u>The project should be able to promote more women participation and access to decision making; The project should discuss with community leaders (i.e., manoholo – case in Rote Ndao) about gender role discrepancy and seek for culturally appropriate solutions</u>	<u>The project will consider gender balance and address gender issues in conducting socio-ecological assessment, ecosystem restoration and management and livelihood activities. The project will also take into account gender issues in preparing climate adaptation action plans.</u>

<u>Women are sometime occupied with work (assist husband as breadwinner) in the field and lack of time to manage household i.e., children higher risk to stunting</u>	<u>More livelihood options/diversification to reduce women burden; Future project should contribute to improve protein intake/food diversification especially for infant/children</u>	<u>Livelihood activities in the project will take into account more livelihood options to reduce women's burden.</u>
<u>Areas for gleaning (foraging in the intertidal flats) become less available. TC Seroja changes the condition (Holulai, Oelua and Lobo Rai)</u>	<u>Future project should contribute to revive the situation and help to seek for solution</u>	<u>Coastal ecosystem restoration will ensure sustainability of ecosystem services including for areas for gleaning.</u>
<u>Getting water sometime are cumbersome for women, especially dry season</u>	<u>Future project should contribute to reduce the burden</u>	<u>The project will provide community grants for climate resilience and sustainable livelihood initiatives from the community. The grants can be used to address climate resilience on water resources.</u>
<u>Underprivileged group in Holulai Village, Rote Ndao (May 27, 2022)</u>		
<u>Disadvantaged people are often excluded in the decision-making process, particularly during village planning.</u>	<u>Create more consultation process, involving underprivileged groups; Project should prioritise underprivileged group</u>	<u>Project activities will include facilitation of village/community meetings and ensure inclusive participation of communities.</u>
<u>Food supplies are just enough, no opportunity to improve the dietary composition. There are provisions of subsidies from the government but not enough.</u>	<u>The future project should contribute to establish food security</u>	<u>Livelihood activities in this project will strengthen food security.</u>
<u>There are concern about insufficient fishing gears and their boat cannot cope longer distance/time to fish</u>	<u>The program should contribute to improve fishing activities</u>	<u>Ecosystem restoration and management will ensure sustainability of ecosystem services including for fishery.</u>
<u>Traditional groups in Sabu Raijua (May 24, 2022)</u>		
<u>During some projects in the past, traditional practices/rituals are misplaced/much simplified; consultation processes are limited.</u>	<u>Future project should better involve traditional groups; more consultation needs to be made</u>	<u>The project will take into account traditional practices in conserving ecosystem resources.</u>

**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.

**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

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

Without Project Scenario	With Project Scenario
Savu Seascape management is limited, mainly relying on BKKPN Kupang role only, in which resources are dispersed thinly in the vast Savu Sea and cannot reach the desired effectiveness.	30,3 km of coastal zones are better managed; 10 villages participate in better coastal management through EbA activities, locally managed marine areas (LMMA), improving ecosystem resilience. Coastal management will also involve village and district governments.

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<u>Seaward mangrove formations are degraded and fragmented caused by extreme weather; landward mangrove formations under pressure from land conversion and unsustainable use</u>	<u>Mangrove rehabilitation activities assist the mangrove recovery process by implementation of Building with Nature framework (seaward and landward).</u>
<u>Gleaning areas in intertidal seagrass zones which are an important source of food and income by local communities are damaged by extreme weather.</u>	<u>Seagrass rehabilitation activities assist seagrass ecosystem recovery and gradually improve food systems for gleaning; more protein source choices from animals associated in seagrass</u>
<u>Coral reef ecosystems are damaged by extreme weather and coral bleaching events; Rehabilitation process is absent, relying only on natural fecundity capacity; declining fishes for small scale fishermen.</u>	<u>Coral rehabilitation sites using grey infrastructures are implemented; rehabilitation sites will be done at 5-10 m depths to minimise temperature and mechanical stresses; more fishes available gradually.</u>
<u>Coastal communities, mainly small-scale fishers (most of them underprivileged) are relying on fishing activities as livelihood; fish resources declining due to habitat degradation and overfishing.</u>	<u>More options of EbA-based sustainable livelihood activities; coastal social-ecological systems are more resilient.</u>
<u>PROKLIM (climate resilient village, government program) is not gaining traction progressively due to massive relocation of funds to pandemic control efforts.</u>	<u>10 villages will be stimulated and participated into PROKLIM and will get support from the 2024-2028 government budget.</u>
<u>Women participation in EbA activities are limited</u>	<u>At least 30% women participants are involved in the planning, implementation, monitoring and learning process of EbA activities; more gender balanced community groups; more women-based groups emerge</u>
<u>Traditional communities and traditional practices are rarely connected with EbA activities</u>	<u>More traditional practices are integrated into EbA schemes (e.g., dea batu, papadak, hoholok); traditional communities are more involved in the EbA activities</u>

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<sup>28</sup>.

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<sup>29</sup>. There was a lack of special budget allocation (DAK) for the environment sector in these two districts in 2021<sup>30</sup>. 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.

<sup>28</sup> -YAPEKA. 2021. Analisis Pagu Anggaran Kab. Rote Ndao.

<sup>29</sup> -BPS. 2020. Statistik Keuangan Pemerintah Daerah NTT.

<sup>30</sup> -Ditjen Perimbangan Keuangan, Kemenkeu. 2021. Daftar Alokasi Dana Transfer ke Daerah dan Dana Desa 2021

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## II.J. SUSTAINABILITY OF PROJECT OUTCOMES

### 79. Sustainability of economic impact

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

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### 80. Sustainability of Social Impact

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

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### 81. Sustainability of Environmental Impact

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

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### 82. Sustainability of Institutional and financial Impact

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

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



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.

83. 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		

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84. 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.

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

#### Gender Context

86. In the project sites (10 targeted villages), the population ratio between men and women is 51% Male and 49% Female, thus there are about 4,021 male and 3,848 female in villages in Rote and 4,863 male and 4,651 female in villages in Sabu.

87. Women and men have different capacities in adapting to the adverse effects of Climate Change. The difference in needs, capacities, and societal roles lead to differing impacts of Climate Change on both sexes and exacerbate ongoing gender inequality. There is gender segregation in productive, reproductive and public roles, resulting in inequality in power relations between women and men, especially in terms of access to marine and fishery resources in both Rote and Sabu islands; in the seaweed farming community, men and women share the same jobs but do not have the same financial

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independence; The pattern of traditional structure in the two districts is patrilineal-patrilocal, familial relations are calculated according to the male lineage, considering men to have a higher degree than women. With this structure of society, women and other vulnerable groups lack a place in the public space to voice their rights. In addition, women and men tend to engage in different jobs in the fishery sector, with different results. In addition women tend to be less involved among the authorities and generally underrepresented in local decision-making structures in village and district levels. Compared to their male counterparts, women also struggle to gain access to natural resources, contributing to power imbalances that make them more vulnerable to the impacts of climate change and environmental degradation.

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88. In this project women will have better access in decision making of planning and managing coastal resources. EbA and livelihood activities will focus to improve knowledge, skills and access of women to develop livelihood and income generating activities. The project will also encourage women to participate in training and focu group discussions/workshops to express and contribute their ideas. The project will also amplify voices and participation of women by documenting and sharing meaningful participation of women in project activities.

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#### Vulnerable community context

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89. Communities living in the target coastal villages are mostly poor families and are small scale fishers who operate and manage fishery activities on a household basis, fishing with or without a fishing boat of < 5 GT, and using fishing gear that is operated by manpower alone. Small-scale fishers have limited access in managing coastal resources. However traditional practices in managing coastal resources still exist such as Hoholok and Papadak and Dea Batu. These traditional practices are opportunities in strengthening conservation and sustainable use of coastal ecosystems such as mangrove, coral reef and seagrass bed.

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90. The project will strengthen the resilience of coastal ecosystems by restoring degraded ecosystems and establishing LMMA, where small-scale fishers and their traditional practices can be involved and strengthened. In addition, livelihood activities will provide opportunities for the vulnerable and marginalized communities in generating more sustainable income.

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## PART III: IMPLEMENTATION ARRANGEMENT

### III.A. ARRANGEMENT FOR PROJECT IMPLEMENTATION

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91. 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).

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92. YAPEKA and the consortium will establish a Steering Committee and a Project Management Unit (PMU).

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93. 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:

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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.

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- Coordinate and facilitate the implementation of EbA and livelihood activities.

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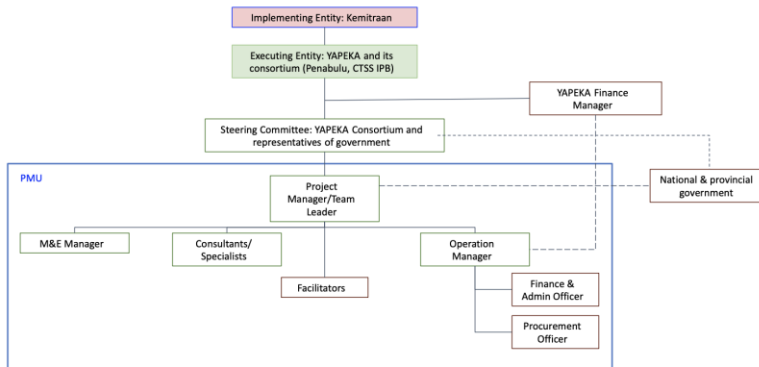


Figure 1: Project Organization Structure

96. 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.

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### III.B. MEASURES FOR FINANCIAL AND PROJECT RISK MANAGEMENT

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

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Risks <a href="#">and risk rating</a>	Mitigation measures
<b>Financial Risks</b>	
1. Miss-use of funds/fraud <a href="#">(Low)</a>	<ul style="list-style-type: none"> <li>- Implement YAPEKA's Guidelines for anti-corruptions and grievance mechanisms.</li> <li>- Implement SOP on financial management and accounting systems.</li> <li>- Minimize cash transfers and cash advances.</li> <li>- Internal and external audit.</li> </ul>
2. Lack of financial management capacity of NGOs partners/ sub-grantee <a href="#">(Low-medium)</a>	<ul style="list-style-type: none"> <li>- Training on financial management for NGO partners/sub grantees.</li> <li>- Conduct financial and administration monitoring/audit.</li> </ul>
<b>Project Operational Risks</b>	

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Risks <a href="#">and risk rating</a>	Mitigation measures
1. Disagreement among consortium members <a href="#">(Low)</a>	<ul style="list-style-type: none"> <li>- MoU and implementing arrangement agreed and signed by consortium members.</li> <li>- Facilitate coordination meetings among consortium members.</li> </ul>
2. Irregular means of transportation to access project locations (Rote and Sabu islands) due to bad weather in Savu Sea <a href="#">(Low-medium)</a>	<ul style="list-style-type: none"> <li>- Regularly update local weather reports prior to travelling to Rote and Sabu islands.</li> <li>- Optimize coordination via telephone/internet.</li> <li>- Optimize and delegate the local Rote and Sabu team</li> </ul>
3. Varied and inconsistent level of participation of stakeholders <a href="#">(Medium)</a>	<ul style="list-style-type: none"> <li>- Prepare a stakeholder engagement plan.</li> <li>- Layering approaches and tailored approaches to specific needs of stakeholders when necessary</li> </ul>
4. Complaints/feedback from beneficiaries, stakeholders, public <a href="#">(Low-Medium)</a>	<ul style="list-style-type: none"> <li>- Grievance and accountability mechanisms in place and shared with stakeholders include handling complaint unit.</li> </ul>
5. Project staff and stakeholders may be affected by the Pandemic Covid-19 <a href="#">(Low-Medium)</a>	<ul style="list-style-type: none"> <li>- Follow the Pandemic Covid-19 protocol.</li> <li>- <a href="#">Coordination of training/workshops and field activities with the local Pandemic Covid-19 task force.</a></li> <li>- <a href="#">Encourage project staffs to get vaccination and booster packages</a></li> </ul>

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### III.C. MEASURES FOR ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

Risk <a href="#">and risk rating</a>	Mitigation Measures
<b>Compliance with the Law</b>	
By regulation, some areas of Laut Sawu NP are forbidden for extraction (i.e. core zone - <a href="#">zona inti</a> ) including extraction required for coral/seagrass/mangrove rehabilitation. Some exceptions can be made under specific circumstances <a href="#">(High)</a>	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.
<a href="#">Access and Equity</a>	
<a href="#">EbA - general: elite capture (low-medium)</a>	<a href="#">implement consistent participatory and social equity framework; create specific consultation to the women and</a>

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Risk and risk rating	Mitigation Measures
	<u>underprivileged groups; involve village representative board in planning and implementation</u>
<u>Process to allocate access to the project might not be transparent and not well coordinated with stakeholders; Selection of locations/villages for the implementation of EbA and livelihood activities might trigger jealousy among other villages (Low).</u>	<u>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.</u>
<u>Marginalized and Vulnerable Groups.</u>	
<u>Marginalized and vulnerable groups might have limited access to participate in the project implementation. Most coastal communities are poor and marginalized small-scale fishers who are operating and managing fishery on a household basis and with limited fishing gear. Small scale fishery depends on ecosystem services provided by mangroves, coral reefs and seagrass. Degradation of these ecosystems will lead to decrease of fishery productions (Low-medium).</u>	<u>The project will ensure participation of marginalized and vulnerable groups in sustainable livelihood activities as well as in EbA activities. The project will also provide training for the marginalized and vulnerable groups on alternative livelihood activities, and participate in planning and managing coastal resources. identify marginalized and vulnerable groups in project locations, prepare and implement a social-gender inclusion plan (SGIP), encourage marginalized/vulnerable groups to participate in project activities, document meaningful participation of marginalized/vulnerable groups in project activities.</u>
<u>Human Rights</u>	
<u>Human rights issues are not an explicit part of consultations with stakeholders during the identification and/or formulation of the project/programme (Low).</u>	<u>Implement Free, Prior, Informed, and Consultation (FPIC) during consultations with stakeholders and communities and in formulation of project activities.</u>
<u>Gender Equality &amp; Women's Empowerment</u>	
<u>Women and men have different capacities in adapting to the adverse effects of Climate Change. The difference in needs, capacities, and societal roles lead to differing impacts of Climate Change on both sexes and exacerbate ongoing gender inequality; Women tend to be less involved among the authorities and generally underrepresented in local decision-</u>	<u>In this project women will have better access in decision making of planning and managing coastal resources. EbA and livelihood activities will focus to improve knowledge, skills and access of women to develop livelihood and income generating activities. The project will also encourage women to participate in training and focus group discussions/workshops to express and contribute their ideas. The project will also amplify voices and</u>

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<b>Risk and risk rating</b>	<b>Mitigation Measures</b>
<u>making structures in village and district levels. Compared to their male counterparts, women also struggle to gain access to natural resources, contributing to power imbalances that make them more vulnerable to the impacts of climate change and environmental degradation. Women might have limited access or neglected to participate in the project implementation (Medium).</u>	<u>participation of women by documenting and sharing meaningful participation of women in project activities.</u>  <u>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.</u>
<u>Core Labor Right</u>	
<u>Forced or compulsory labor, child labor, discrimination and respect of employment and occupation (low)</u>	<u>Implement YAPEKA's Ethical Guidelines; update the guideline when necessary.</u>
<u>Protection of Natural Habitats</u>	
<u>EbA -BWN Mangrove restoration:</u> <ul style="list-style-type: none"> <li><u>EbA - BWN Mangrove: Construction works to develop hybrid infrastructure may use materials from illegal activities, such as sand from illegal sand quarry (Medium)</u></li> <li><u>Low survival rate of mangrove seedlings.</u></li> </ul> <u>EbA - Spider Frame coral transplantation:</u> <ul style="list-style-type: none"> <li><u>Damage of coral reefs caused by boats and divers when collecting corals during coral transplantation. (Low)</u></li> <li><u>Recruitment of coral reef fragments might cause even more damage to the source site (Medium)</u></li> </ul> <u>EbA - LMMA:</u> <ul style="list-style-type: none"> <li><u>Management of coastal resources might limit access to coastal resources and cause discontent among small-scale fishers (medium-high)</u></li> </ul> <u>EbA - Livelihood:</u> <ul style="list-style-type: none"> <li><u>Ecotourism and other livelihood</u></li> </ul>	<u>EbA -BWN Mangrove restoration:</u> <ul style="list-style-type: none"> <li><u>The project proponent will ensure subcontractors state that they will use legal materials in constructing hybrid infrastructure</u></li> <li><u>Select local species; prepare transit nursery; mangrove rehabilitation training; select suitable locations based on ecology and hydrology assessment.</u></li> </ul> <u>EbA - Spider Frame coral transplantation:</u> <ul style="list-style-type: none"> <li><u>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.</u></li> <li><u>Apply strict recruitment protocol as approved by BKKPN/BRIN; only recruit from local coral sources to reduce risks.</u></li> </ul> <u>EbA - LMMA:</u> <ul style="list-style-type: none"> <li><u>Social-ecological assessment to understand the livelihood system; diversification of livelihood; intensive consultation with fishermen; diversification of fishing gears to optimize catch and compensate losses; cross-sectoral coordination to mobilise support for impacted fishers.</u></li> </ul> <u>EbA - Livelihood:</u> <ul style="list-style-type: none"> <li><u>Social-ecological assessment to understand the livelihood system; provide code of conduct and</u></li> </ul>



Risk and risk rating	Mitigation Measures
<u>activities that might deprive natural habitats (Medium)</u>	<u>guidelines for livelihood activities.</u>
<u>Conservation of Biological Diversity</u>	
<u>EbA -Livelihood:</u> <ul style="list-style-type: none"> <li>Ecosystem-based livelihood might disturb the biological diversity of coastal ecosystems (Medium)</li> </ul>	<u>EbA -Livelihood:</u> <ul style="list-style-type: none"> <li>Conduct viability assessment of ecosystem resources; establish no-take zone and/or local regulation in utilizing the resources.</li> </ul>
<u>Climate Change</u>	
<u>EbA -Livelihood:</u> <ul style="list-style-type: none"> <li>Use of fossil fuels for production of livelihood products that might increase GHG emission (Low)</li> <li>Open burning of waste practices that might increase of GHG emission (Low)</li> </ul>	<u>EbA -Livelihood:</u> <ul style="list-style-type: none"> <li>Limit the use of fossil fuel and use renewable energy when possible (e.g.solar panel for electricity)</li> <li>Develop and socialize guidelines for proper waste disposal.</li> </ul>
<b>Pollution Prevention and Resource Efficiency</b>	
<u>EbA - BWN mangrove restoration:</u> <ul style="list-style-type: none"> <li>Polybag waste in mangrove nursery/planting activities (Low)</li> </ul>	<u>EbA - BWN mangrove restoration:</u> <ul style="list-style-type: none"> <li>Use recyclable mangrove poly-bags (e.g made of palm leaves), and proper plastic waste disposal.</li> </ul>
<u>EbA - Spider Frame coral transplantation:</u> <ul style="list-style-type: none"> <li>Use of epoxy plastic might pollute the waters (Low)</li> </ul>	<u>EbA - Spider Frame coral transplantation:</u> <ul style="list-style-type: none"> <li>Use locally sourced materials; avoid/minimize plastic structure for growth substrate; fixing the artificial substrate into the sea floor to avoid loose materials</li> </ul>
<u>EbA - Livelihood:</u> <ul style="list-style-type: none"> <li>EbA - Livelihood: ecotourism and production of other livelihood products might produce waste and pollute the nearby ecosystems (Medium)</li> </ul>	<u>EbA - Livelihood:</u> <ul style="list-style-type: none"> <li>Prepare guidelines for waste management in ecotourism areas and livelihood activities, brief community groups implementing ecotourism and other livelihood activities on guidelines to manage the waste, proper waste disposal.</li> </ul>
<b>Public Health</b>	
<u>EbA - Rainwater harvesting:</u> <ul style="list-style-type: none"> <li>Water harvested might pose health hazard (Low-Medium)</li> </ul>	<u>EbA - Rainwater harvesting:</u> <ul style="list-style-type: none"> <li>Water-borne diseases (i.e. dengue, dyharrea) prevention measures; water treatment, water sanitation and filtration training.</li> </ul>
<u>Project activities - General:</u> <p>Project activities might transport people to one place to other places and gather people during indoor training and workshop events, which might be at risk to the pandemic covid-19 (Low).</p>	<u>Project activities - General:</u> <ul style="list-style-type: none"> <li>The project will follow the current Covid-19 protocol to prevent the spread of pandemic Covid-19; and will coordinate with the local Covid-19 task force.</li> </ul>

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### III.D. MONITORING AND EVALUATION ARRANGEMENT

98. 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:

99. 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 integrate with the Workshop on Implementation of Climate Resilience Policy at local level will be held at the beginning of project implementation. The workshop will involve key stakeholders including government agencies at national and sub-national level, local university, NGOs and CBOs; and will identify and update key strategic issues in climate resilience of the target landscape/seascape. The workshop result will be a base-line for any refocusing project interventions.
- **Conduct joint monitoring and evaluation missions.** Regular joint monitoring and evaluation (M&E) missions will be conducted at least every six months of project implementation, to review project progress, compliance, quality, and identify any systemic issues as well as to write down recommendations for corrective actions.
- **Prepare progress reports (quarterly and annually).** The Project Management Unit (PMU) will prepare progress reports on a quarterly and annual basis. The progress report will include progress of project implementation based on agreed key performance/target indicators, SGIP, and ESMP; and budget disbursement.
- **Conduct Project Evaluation** that will be conducted by independent consultants at the end of the project, to evaluate achievement of target indicators as well as to analyse lessons learned from project implementation.

Table: M&E component budget of the project

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

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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 assess climate vulnerability and identify adaptation options				
Outcome 1: Increased generation and use of coastal climate vulnerability information in decision-making.	<ul style="list-style-type: none"> <li>No. of climate adaptation action plans that use the updated coastal vulnerability associated with tropical cyclones.</li> <li>No. of beneficiaries of improved early warning systems.</li> </ul>	<ul style="list-style-type: none"> <li>Climate adaptation action documents.</li> <li>List of training participants on accessing and interpreting climate-extreme weather.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of knowledge management to ensure sustainability of generation and use of coastal vulnerability information in decision making.</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen knowledge management of local universities to support generation and use of coastal vulnerability information in decision making.</li> </ul>
Output 1.1. Updated the coastal vulnerability associated with tropical cyclones in Rote and Sabu islands.	<ul style="list-style-type: none"> <li>1 Report on coastal vulnerability associated with tropical cyclones in Rote and Sabu islands..</li> </ul>	<ul style="list-style-type: none"> <li>Report and spatial data on coastal vulnerability associated with tropical cyclones in Rote and Sabu islands.</li> </ul>	<ul style="list-style-type: none"> <li>Barriers in acquiring supporting data from key data holders.</li> </ul>	<ul style="list-style-type: none"> <li>Identification of and preliminary coordination with key data holders.</li> </ul>
<p><u>Output 1.2. Climate Field Schools to implement EbA</u></p> <p><u>Output 1.2. District Adaptation Action Plans that use updated Coastal vulnerability associated with TC data and information.</u></p>	<ul style="list-style-type: none"> <li><u>4 climate field schools to implement EbA at sub-district level. 2-District Adaptation Plans that use updated coastal risk and vulnerability associated with TCs data (Rote Ndao and Sabu Raijua)</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Field School Training modules and materials</u></li> <li><u>Trainers at field schools</u></li> <li><u>List of training participants</u></li> <li><u>Field school equipment</u></li> <li><u>Documents of District Adaptation Plans.</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Limited trainers for field schools. Lack of active participation of local government stakeholders in preparing the adaptation action plans.</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Coordinate and develop collaboration with local universities for training resources. BAPPELTBANGDA at fo district level to coordinate multi stakeholder workshops.</u></li> </ul>

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
<del>Output 1.3: Coastal village communities with improved knowledge and skills in accessing and interpreting climate extreme weather information.</del>	<ul style="list-style-type: none"> <li><del>Coastal communities in 6 villages with improved knowledge and skills in accessing and interpreting climate extreme weather.</del></li> </ul>	<ul style="list-style-type: none"> <li><del>List of training participants on accessing and interpreting climate extreme weather.</del></li> </ul>	<ul style="list-style-type: none"> <li><del>Climate extreme weather information service delivery and communication networks are not working well.</del></li> </ul>	<ul style="list-style-type: none"> <li><del>Coordinate with BMKG and BPBD to ensure reliable climate weather information.</del></li> </ul>
Outcome 2: Increased awareness of the impacts of extreme weather and climate; and of adaptation measures.	<ul style="list-style-type: none"> <li>50 % of targeted population groups participating in adaptation and risk reduction awareness activities</li> <li>Strengthened capacity of national and sub national stakeholders and entities to capture and disseminate knowledge and learning.</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge Attitude and Practice (KAP) Survey results on predicted adverse impacts of climate change, and of appropriate responses.</li> <li>Strengthened local university in Climate resilience knowledge management.</li> </ul>	<ul style="list-style-type: none"> <li>an unclear percentage of increase of awareness is based on project activities.</li> <li>Obstacles in strengthening the capacity of a local university in climate resilience knowledge management.</li> </ul>	<ul style="list-style-type: none"> <li>-KAP survey design includes population with project intervention and population without project intervention (control population)</li> <li>Provide technical assistance/mentoring the process of strengthening the local university.</li> </ul>
<u>Output 2.1. Diverse communication materials &amp; channels on EbA practices</u>	<ul style="list-style-type: none"> <li><u>5 communication channels (digital and non digital media)</u></li> <li><u>5 types of communication materials.</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Communication channel links and printed media</u></li> <li><u>copy/documentation of communication materials</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Limited access of media channels</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Use social media and IOT.</u></li> </ul>
Output 2.24. Journalists, influencers and community groups participating in adaptation and risk reduction awareness activities.	<ul style="list-style-type: none"> <li>At least 10 news stories in the local press and media cover the topic on adaptation and climate risk reduction in Savu Seascape.</li> </ul>	<ul style="list-style-type: none"> <li>Copy of local media and press (digital/printed) that cover the topic on adaptation and climate risk reduction.</li> </ul>	<ul style="list-style-type: none"> <li>Limited knowledge of local journalists/ influencers on adaptation and climate risk reduction issues.</li> </ul>	<ul style="list-style-type: none"> <li>Provide press releases on project activities and results for journalists/ influencers ;</li> <li>Involve journalists/influencers in project activities.</li> </ul>

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
<p>Output 2.32. <u>Digital information platform on EbA practices</u></p> <p>Strengthened capacity of the local university/research center (e.g. UNDANA) as a Climate Resilience Knowledge-Management Center</p>	<ul style="list-style-type: none"> <li>1 digital information platform on EbA practices<sup>1</sup> university/research center strengthened as Knowledge Management Center on Climate Resilience at provincial level.</li> <li>1 climate-resilience knowledge management strategy developed.</li> <li>At least 3 Research Seminars (online/offline) conducted by the KM-center.</li> <li>1 Climate-resilience symposium facilitated by the KM-center.</li> <li>At least 5 KM-center staff trained on GIS.</li> <li>2 units of Computer/laptop facility provided for MIS/GIS.</li> </ul>	<ul style="list-style-type: none"> <li>Link of digital information platform on EbA practices. University/Research Center document that describes the establishment of the KM-center.</li> <li>List of researchers and fellow researchers who work in the KM-center.</li> <li>Document of KM-strategy.</li> <li>List of climate research seminars.</li> <li>Proceedings of climate resilience symposium.</li> <li>List of staff participating in the GIS training and copy of certificates.</li> <li>Hand-over document on computer/laptop with list of assets.</li> </ul>	<ul style="list-style-type: none"> <li>Limited data/information resources.</li> <li>Long administration and compliance process to establish a KM-center by the university.</li> <li>Weak coordination between the university and other stakeholders (knowledge users).</li> </ul>	<ul style="list-style-type: none"> <li>Identify EbA practices from other projects.</li> <li>The project will provide technical assistance and facilitate coordination meetings with the university.</li> <li>The project will facilitate coordination meetings with stakeholders (knowledge holders and potential users)</li> </ul>
Objective 2: Improved adaptive capacity of coastal socio-ecological systems to withstand extreme weather and climate				
<p>Outcome 3: Vulnerable ecosystems strengthened in response to climate change impacts, including variability.</p>	<ul style="list-style-type: none"> <li>4 coastal ecosystem landscapes with improved resilience and management. 3 types of coastal ecosystems maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)</li> <li>Local communities with improved capacity in implementing ecosystem restoration/rehabilitation and implementing LMMA.</li> </ul>	<ul style="list-style-type: none"> <li>Restored degrading ecosystems in the four landscape</li> <li>Coastal ecosystem management practices within the four landscape</li> <li>Physical evidence of coastal ecosystem restoration.</li> <li>Reports and maps on coastal ecosystem restorations</li> <li>List of training participants</li> </ul>	<ul style="list-style-type: none"> <li>High anthropogenic threats occur in the landscapes. target areas increasing the vulnerability of coastal ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>The project will identify target landscapes/areas with less anthropogenic threats or where anthropogenic threats can be eliminated.</li> </ul>

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	<ul style="list-style-type: none"> <li>Local communities with improved capacity in conducting monitoring and surveillance.</li> </ul>	<ul style="list-style-type: none"> <li>and copies of certificates.</li> <li>List of assets provided to local communities for ecosystem restoration and monitoring and surveillance activities.</li> </ul>		
Output 3.1. <u>Restored coastal ecosystems by implementing the Building with Nature (BWN) approach. Area of coastal ecosystem restored/rehabilitated or managed for conservation and sustainable use by local government and communities</u>	<ul style="list-style-type: none"> <li>14 units BWN coastal ecosystem restoration implemented. 1 set of criteria to identify and select sites for coastal ecosystem restorations.</li> <li>6 Ha coral rehabilitation, 12 Ha mangrove rehabilitation, and 6 Ha seagrass rehabilitation (involving replanting mangrove/ coral transplantation, or natural rehabilitation/conservation).</li> </ul>	<ul style="list-style-type: none"> <li>Documentation of BWN coastal ecosystem restoration processes.</li> <li>Documentation of criteria and selection of sites for coastal ecosystem restorations.</li> <li>Physical evidence of ecosystem restoration/ rehabilitation.</li> <li>Reports on BWN coastal Ecosystem restoration/rehabilitation.</li> </ul>	<ul style="list-style-type: none"> <li>Overlapping land use plan on target locations that may inhibit sustainability of BWN coastal ecosystem restoration/conservation management.</li> <li>Ecosystem Rehabilitation activities are not well maintained.</li> </ul>	<ul style="list-style-type: none"> <li>The project will consult with the local agency for development planning especially on spatial plans of the target locations.</li> <li>The project will prepare guidelines to monitor rehabilitated ecosystems.</li> </ul>
Output 3.2. <u>Locally Managed Marine Area (LMMA) established</u> <u>Communities with improved knowledge and skills in implementing EbA</u>	<ul style="list-style-type: none"> <li>14 LMMAs established at sub district level. At least 100 coastal community members are trained on coastal ecosystem restoration and/or on locally managed marine areas (LMMA)</li> </ul>	<ul style="list-style-type: none"> <li>Physical evidence of LMMA at village level</li> <li>Supporting village regulations on LMMA</li> <li>Training modules/materials</li> <li>List of training participants.</li> <li>Training reports.</li> </ul>	<ul style="list-style-type: none"> <li>Conflicting use of LMMA.</li> <li>Training participants cannot implement the knowledge from training materials</li> <li>Participants of the training do not include women and vulnerable/marginalized groups.</li> </ul>	<ul style="list-style-type: none"> <li>Develop coordination with BKKN Kupang and local government.</li> <li>Training participants will be involved in implementing ecosystem restoration/LMMA.</li> <li>Encourage inclusion of women and vulnerable/marginalized groups in</li> </ul>

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
				participating in the training.
<p><u>Output 3.3. Small infrastructure to support ecosystem monitoring and surveillance.</u></p> <p>Output 3.3 Communities with improved capacity in conducting community-based biodiversity monitoring and surveillance.</p>	<ul style="list-style-type: none"> <li>4 monitoring towers</li> <li>1 mangrove track</li> <li>1 information center</li> <li>At least 5 community groups from target villages (e.g. POKMASWAS, KOMPAK, POKDARWIS) are trained in community-based biodiversity/conservation monitoring.</li> <li>At least 5 sets of biodiversity monitoring and surveillance supporting equipment are available for community groups (POKMASWAS)</li> </ul>	<ul style="list-style-type: none"> <li>Feasibility study and DED of infrastructures</li> <li>Constructions of infrastructures</li> <li>Construction reports and documentations.</li> <li>Training module/materials</li> <li>List of participants and community groups participating in the training.</li> <li>Training reports.</li> <li>List of biodiversity monitoring and surveillance equipment.</li> <li>Handing over documents of biodiversity monitoring and surveillance equipment.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructures are not well maintained</li> <li>Training participants cannot implement the knowledge from training materials</li> <li>Participants of the training do not include women and vulnerable/marginalized groups.</li> <li>biodiversity monitoring and surveillance equipment are not well maintained.</li> </ul>	<ul style="list-style-type: none"> <li>Coordination with relevant local government for maintenance, and village government.</li> <li>Prepare and socialize O&amp;M guideline</li> <li>Training participants will be involved in implementing ecosystem restoration/LMMA.</li> <li>Encourage inclusion of women and vulnerable/marginalized groups in participating in the training.</li> <li>Prepare operation and maintenance plan of the equipment.</li> </ul>
Outcome 4: Communities with improved and diversified livelihoods.	<ul style="list-style-type: none"> <li>No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies</li> <li>Type of income sources for households/livelihood</li> </ul>	<ul style="list-style-type: none"> <li>List of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies.</li> <li>Reports on business development of livelihood</li> </ul>	<ul style="list-style-type: none"> <li>Improper operation and maintenance of adaptation assets.</li> <li>Challenges in the Vulnerability context of livelihood (e.g. marketing, seasonality, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>Operation and maintenance plan agreed by beneficiaries.</li> <li>Feasibility study of livelihood activities.</li> </ul>

Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
	generated under climate change scenarios.	opportunities		
Output 4.1. Rapid local market assessments at the village level to identify site-specific livelihoods opportunities	<ul style="list-style-type: none"> <li>1 Local Rapid Livelihood market assessment at village level to identify site-specific livelihood opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>Report on Local Rapid Livelihood market assessment at village level to identify site-specific livelihood opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>The assessment is not comprehensive due to limited information from the site.</li> </ul>	<ul style="list-style-type: none"> <li>Participatory action research approach in conducting the assessment.</li> </ul>
Output 4.2. local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.	<ul style="list-style-type: none"> <li>90 people trained on sustainable livelihood production practices (e.g. fishery, aquaculture, ecotourism, etc.)</li> <li>60 people trained on livelihood business management.</li> </ul>	<ul style="list-style-type: none"> <li>Training modules/materials.</li> <li>List of training participants on sustainable livelihood production practices and on livelihood business management.</li> <li>Copy of training certificates.</li> <li>Training report document</li> </ul>	<ul style="list-style-type: none"> <li>Training participants cannot implement the knowledge from training materials</li> <li>Participants of the training do not include women and vulnerable/marginalized groups.</li> </ul>	<ul style="list-style-type: none"> <li>Training participants will be involved in developing and implementing businesses.</li> <li>Encourage inclusion of women and vulnerable/marginalized groups in livelihood activities.</li> </ul>
Output 4.3 value chain viability assessments to guide the design of the livelihood sub-grant for the local communities	<ul style="list-style-type: none"> <li>1 Value Chain Viability Assessment to guide the design of livelihood sub-grants for the local community.</li> </ul>	<ul style="list-style-type: none"> <li>Document on Value Chain Viability Assessment to guide the design of livelihood sub-grants for the local community.</li> </ul>	<ul style="list-style-type: none"> <li>The assessment is not comprehensive due to limited information from the site.</li> </ul>	<ul style="list-style-type: none"> <li>Participatory action research approach in conducting the assessment.</li> </ul>
Output 4.4. Technical assistance to livelihood businesses during community proposal preparation and throughout business implementation.	<ul style="list-style-type: none"> <li>6 villages provided with technical assistance and facilitation during community proposal preparation and throughout business implementation.</li> <li>6 Community proposals on livelihood activities.</li> </ul>	<ul style="list-style-type: none"> <li>Guidelines for preparing proposals and implementing livelihood activities</li> <li>Community proposals on livelihood activities.</li> <li>Livelihood facilitation activity reports.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of local/village policy and regulation support on livelihood activities from the local/village governments.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate livelihood activities with the local/village governments.</li> </ul>



Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Output 4.5. Community livelihood subgrants.	<ul style="list-style-type: none"> <li>6 community groups agreed to the Terms and conditions to use the community subgrants.</li> <li>6 community groups received subgrants to implement livelihood activities.</li> </ul>	<ul style="list-style-type: none"> <li>Signed document of terms and conditions to use the subgrants by the representative of community groups.</li> <li>Document of receipt of the subgrants signed by the community groups.</li> <li>Community subgrants financial reports</li> <li>Livelihood business progress reports.</li> </ul>	<ul style="list-style-type: none"> <li>Miss-use of funds/fraud.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare financial guidelines for the community groups/beneficiaries</li> <li>Financial monitoring.</li> </ul>
Objective 3: <u>Strengthened the enabling policies and institutions to improve the management and climate budgeting for coastal ecosystems.</u>				
Outcome 5: Strengthened local and village governments capacity to reduce risks associated with climate-induced socio economic and environmental losses.	<ul style="list-style-type: none"> <li><u>Two Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts</u></li> <li><u>Number of local and village government staff with improved competency to mitigate climate impacts.</u></li> <li>No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale).</li> <li>No. of targeted institutions benefitting from the direct access and enhanced direct access modality.</li> </ul>	<ul style="list-style-type: none"> <li><u>Adaptation action plans document.</u></li> <li><u>List of government staff and community certified in disaster mitigation and climate adaptation in coastal areas.</u></li> <li>List of district government institutions and villages participating in preparing Adaptation Action Plans <u>and PROKLIM program</u></li> <li>List of district government institutions and villages participating in developing EFT schemes.</li> </ul>	<ul style="list-style-type: none"> <li><u>Training module/material is not compatible with the certification process.</u></li> <li>Preparation of Adaptation Action Plans are not in district and village agenda.</li> <li>Stakeholders (including local parliament) do not have consensus in the EFT scheme.</li> </ul>	<ul style="list-style-type: none"> <li><u>Coordinate the preparation of training modules/material with a professional certification body (BSNP).</u></li> <li>Preliminary coordination with district and village.</li> <li>Facilitate multi stakeholder forum workshops.</li> </ul>
<u>Output 5.1. Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao</u>	<ul style="list-style-type: none"> <li><u>2 Adaptation Action Plans developed by the districts (Sabu Raijua and Rote NDao)and at least 4 adaptation</u></li> </ul>	<ul style="list-style-type: none"> <li><u>List of district government institutions and villages participating in</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Preparation of Adaptation Action Plans are not in district and village</u></li> </ul>	<ul style="list-style-type: none"> <li><u>Coordination with district and village government agencies. The</u></li> </ul>

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
Districts. Output 5.1. Local government and village staff with improved competency in climate change and disaster management.	<p>action plans developed by the village government. 30 local government and village staff with improved competency in climate change and disaster management.</p> <ul style="list-style-type: none"> <li>8 of targeted institutions with increased capacity to minimize exposure to climate variability risks.</li> </ul>	<p>preparing Adaptation plans.</p> <ul style="list-style-type: none"> <li>Adaptation Plan Documents. List of training participants.</li> <li>Copy of certificates of participants issued by BSNP (national body for professional certification)</li> <li>List of institutions with certified staff in climate change and disaster management.</li> </ul>	<p>agenda. Participants of the training have problems understanding training content.</p> <ul style="list-style-type: none"> <li>Participants of the training do not include women and vulnerable group</li> </ul>	<p>training design will include field practice and community organizers as well as project technical staff will provide guidance.</p> <ul style="list-style-type: none"> <li>The project will encourage inclusion of women and vulnerable communities in participating in the training.</li> </ul>
Output 5.2. Strengthened DKPPNTT as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issues.	<ul style="list-style-type: none"> <li>1 Policy brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea</li> <li>2 Multi Stakeholder Forum (DKPPNTT) Workshops to prepare and disseminate Policy brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea.</li> <li>1 Multi Stakeholder Forum (DKPPNTT) Workshops to roadmap for integrating the policy brief recommendation with coastal &amp; marine spatial/development plans.</li> </ul>	<ul style="list-style-type: none"> <li>Document of Policy Brief on Strengthening the ICM Approach to Enhance Climate Resilience in Savu Sea.</li> <li>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.</li> <li>Activity Report on Workshops to roadmap for integrating the policy brief recommendation with coastal &amp; marine spatial/development plans</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations of the policy brief are difficult to be integrated in various sectors.</li> <li>Participants of the MSF workshops are dominated by men.</li> </ul>	<ul style="list-style-type: none"> <li>Recommendations of the policy brief should clearly be addressed to specific sector/ stakeholders.</li> <li>Encourage participation of men in the workshop.</li> <li>Document meaningful participation of women in the workshops.</li> </ul>

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Project Result	Targets & Indicators	Means of Verification	Risks	Mitigation
		including list of participants and documentation.		
<del>Output 5.2. Adaptation Action Plans (RAD-APL document) for Sabu Raijua and Rete Ndao Districts.</del>	<ul style="list-style-type: none"> <li><del>2 Adaptation Action Plans developed by the districts (Sabu Raijua and Rete Ndao) and at least 4 adaptation action plans developed by the village government.</del></li> </ul>	<ul style="list-style-type: none"> <li><del>List of district government institutions and villages participating in preparing Adaptation plans.</del></li> <li><del>Adaptation Plan Documents.</del></li> </ul>	<ul style="list-style-type: none"> <li><del>Preparation of Adaptation Action Plans are not in district and village agenda</del></li> </ul>	<ul style="list-style-type: none"> <li><del>Coordination with district and village government agencies.</del></li> </ul>
Output 5.3. Climate resilience funding schemes through Ecological Fiscal Transfer (EFT) scheme and Village Fund.	<ul style="list-style-type: none"> <li>2 EFT schemes developed by the district governments.</li> <li>1 set of EFT ecological indicators based on coastal adaptation.</li> </ul>	<ul style="list-style-type: none"> <li>List of district government institutions and villages participating in developing EFT schemes.</li> <li>EFT indicators based on coastal adaptation.</li> <li>EFT document.</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholders (including local parliament) do not have consensus in the EFT schemes.</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate multi stakeholder forum workshops.</li> </ul>
<u>Output 5.4. Restored/managed Coastal ecosystems that are monitored and registered in the SRN.</u> <del>Output 5.4. Coastal villages participating in the PROKLIM program.</del>	<ul style="list-style-type: none"> <li><u>14 Restored/managed Coastal ecosystems that are monitored and registered in the SRN.</u> <del>villages participating PROKLIM program</del></li> </ul>	<ul style="list-style-type: none"> <li><u>Monitoring and surveillance community groups</u></li> <li><u>Monitoring activities</u></li> <li><u>SRN Registry</u></li> <li><del>Participating villages are registered in SRN.</del></li> <li><u>Activity Reports.</u></li> </ul>	<ul style="list-style-type: none"> <li>Different readiness of villages in <u>monitoring and surveillance as well as SRN registration.</u> <del>participating PROKLIM program</del></li> </ul>	<ul style="list-style-type: none"> <li>Facilitate training and socialization of <u>monitoring and surveillance as well as SRN registration.</u> <del>PROKLIM program</del></li> </ul>

### III.F. ALIGNMENT WITH ADAPTATION FUND RESULTS FRAMEWORK.

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Objective 1: Strengthened ability of coastal communities to assess climate vulnerability and identify adaptation options	Updated coastal and small island vulnerability information available for decision-making.	AF Outcome 1: Reduced exposure to climate-related hazards and threats	1.1. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis.	<del>62,14360,000</del>
	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.	<del>55,714404,500</del>
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.	<del>397,000477,574</del>
	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.	<del>143,214418,929</del>
Objective 3: <del>Strengthened the enabling policies and institutions to improve the management and climate budgeting for coastal ecosystems.</del> Strengthened local and village government capacity to reduce risks associated with climate-	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.	<del>179,571370,286</del>

induced socio-economic and environmental losses				
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Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
Outcome 1: Increased generation and use of coastal climate vulnerability information in decision-making.	Updated Risk and vulnerability information in Rote and Sabu islands after TC Seroja.	Output 1.1. Risk and vulnerability assessments conducted and updated.	1.1.1. No. of projects that conduct and update risk and vulnerability assessments.  1.1.2 No. of early warning systems (by scale) and no. of beneficiaries covered.	USD <del>62,143,600</del> 60,000
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 <del>55,714,428</del> 57,000
	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 <del>397,000</del> 77,574

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Outcome 4: Communities with improved and diversified livelihoods.	<p>No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies</p> <p>Type of income sources for households/livelihood generated under climate change scenarios.</p>	Output 6. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability.	<p>6.1.1.No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies</p> <p>6.1.2. Type of income sources for households generated under climate change scenarios.</p>	<p>USD</p> <p><del>143,214</del>18,929</p>
Outcome 5: <u>Strengthened governance, coordination and finance to support climate resilience of coastal ecosystem.</u> <u>Strengthened local and village government capacity to reduce risks associated with climate induced socio economic and environmental losses</u>	<p>Number of local and village government staff with improved competency to mitigate climate impacts.</p> <p>No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale).</p> <p>No. of targeted institutions benefitting from the direct access and enhanced direct access modality.</p>	Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events.	<p>2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender).</p> <p>2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale).</p> <p>2.2.1 No. of targeted institutions benefitting from the direct access and enhanced direct access modality.</p>	<p>USD</p> <p><del>179,571</del>370,286</p>

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### III.G. PROJECT BUDGET

DESCRIPTION		TOTAL USD	%	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
<b>COMPONENT 1. KNOWLEDGE MANAGEMENT</b>		<b>\$ 117,857</b>	<b>13%</b>								
<b>OUTCOME</b>	<b>1 Increased generation and use of coastal vulnerability in decision-making to increase climate resilience</b>	<b>\$ 62,143</b>									
OUTPUT	1.1 Updated data & information on Coastal SES and Vulnerability Associated with Tropical Cyclones in Rote and Sabu Islands	\$ 28,571									
Activity	1.1.1 Conduct Action Research on coastal social-economic study and vulnerability associated with tropical cyclones in Rote and Sabu Islands	\$ 28,571		\$ 14,286	\$ 14,286						
OUTPUT	1.2 Climate Field Schools to share knowledge for implementing EbA	\$ 33,571									
Activity	1.2.1 Develop Field School curriculum, modules and materials on EbA	\$ 2,143			\$ 2,143						
	1.2.2 Establish Field Schools: coordination with local government, procurement of supporting equipment and facilities	\$ 14,286			\$ 14,286						
	1.2.3 Conduct Training on EbA for local communities	\$ 17,143				17,143					
<b>OUTCOME</b>	<b>2 Increased awareness of the impacts of extreme weather and climate; and of adaptation measures</b>	<b>\$ 55,714</b>									
OUTPUT	2.1 Communication materials on EbA practices	\$ 15,714									
Activity	2.1.1 Consultant (Graphic designer) to develop communication materials (infographics, poster, etc.)	\$ 8,571		\$ 2,143		\$ 2,143		\$ 2,143		\$ 2,143	
	2.1.2 Communication material production (poster, leaflets, calendar, etc.)	\$ 7,143			\$ 1,786		\$ 1,786		\$ 1,786		\$ 1,786
OUTPUT	2.2 Journalist, influencer and community groups participating in adaptation and risk reduction awareness activities.	\$ 22,857									
Activity	2.2.1 Facilitate media trips to cover climate issues and EbA implementation in Rote and Sabu Islands	\$ 22,857					\$ 11,429				\$ 11,429
OUTPUT	2.3 Output 2.2: Digital information platform on EbA practices	\$ 17,143									
Activity	2.3.1 Develop concept and conduct assessment on users of EbA digital platform	\$ 3,571			\$ 3,571						
	2.3.2 Develop EbA digital platform design	\$ 3,571				\$ 3,571					
	2.3.3 Procure IT infrastructure for EbA digital platform	\$ 3,571					\$ 3,571				
	2.3.4 Collect data and information for EbA digital platform	\$ 2,143					\$ 2,143				
	2.3.5 Develop Digital Platform user guide	\$ 714						\$ 714			
	2.3.6 Train users to use EbA digital platform	\$ 3,571						\$ 3,571			
<b>COMPONENT 2. Ecosystem Rehabilitation, Management and Sustainable Livelihood</b>		<b>\$ 540,214</b>	<b>58%</b>								
<b>OUTCOME</b>	<b>3 Vulnerable ecosystems strengthened in response to climate change impacts, including variability</b>	<b>\$ 397,000</b>									
OUTPUT	3.1 Building With Nature ecosystem restoration sites	\$ 239,857									
Activity	3.1.1 Technical Assistance EbA Specialist	\$ 42,857		\$ 5,357	\$ 5,357	\$ 5,357	\$ 5,357	\$ 5,357	\$ 5,357	\$ 5,357	\$ 5,357
	3.1.2 Technical Assistance: Technical Facilitators	\$ 46,286			\$ 7,714	\$ 7,714	\$ 7,714	\$ 7,714	\$ 7,714	\$ 7,714	
	3.1.3 Technical Assistance: GIS Specialist	\$ 19,286			\$ 3,214	\$ 3,214	\$ 3,214	\$ 3,214	\$ 3,214	\$ 3,214	
	3.1.4 Facilitate Socialization/FPIC at village/sub-district level	\$ 14,286			\$ 14,286						
	3.1.5 Develop technical design on BWN ecosystem restoration	\$ 2,857				\$ 2,857					
	3.1.6 BWN ecosystem restoration unit	\$ 114,286					\$ 57,143	\$ 57,143			
OUTPUT	3.2 Locally Managed Marine Area (LMMA) established	\$ 85,714									
	3.2.1 Facilitate LMMA establishment	\$ 28,571				\$ 14,286	\$ 14,286				
	3.2.2 Integrating LMMA with village planning	\$ 57,143						\$ 28,571	\$ 28,571		
OUTPUT	3.3 Small infrastructure to support ecosystem monitoring and ecotourism	\$ 71,429									
	3.3.1 Build Monitoring and Surveillance Tower	\$ 71,429				35,714			\$ 35,714		
<b>OUTCOME</b>	<b>4 Communities with improved and diversified livelihoods</b>	<b>\$ 143,214</b>									
OUTPUT	4.1 Rapid local market assessments at the village level to identify site-specific livelihood opportunities	\$ 17,857									
Activity	4.1.1 Conduct rapid local market assessment at village level to identify site-specific livelihood opportunities	\$ 17,857			\$ 17,857						
OUTPUT	4.2 Local communities with improved skills and knowledge on sustainable production practices, business management, value chain improvements, and accessing financial services.	\$ 21,429									
Activity	4.2.1 Train local communities on sustainable production practices, business management, value chain improvement, and accessing financial services	\$ 21,429				\$ 21,429					
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 Diverse livelihood business model incubated.	\$ 39,643									
Activity	4.4.1 Provide technical assistance/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 sub-grants to support community-based climate resilience and livelihood business initiatives	\$ 53,571									
Activity	4.5.1 Develop and implement community sub grants mechanism	\$ 17,857					\$ 17,857				
	4.5.2 Provide community subgrants	\$ 35,714						\$ 35,714			

DESCRIPTION		TOTAL USD	%	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
<b>COMPONENT 3. STRENGTHENING GOVERNANCE</b>		<b>\$ 179,571</b>	<b>19%</b>								
<b>OUTCOME</b>	<b>5 Local and village government with improved capacity and finance to implement adaptation measures</b>	<b>\$ 179,571</b>									
<b>OUTPUT</b>	<b>5.1 Adaptation Action Plans (RAD-API document) for Sabu Raijua and Rote Ndao Districts</b>	<b>\$ 67,143</b>									
Activity	5.1.1 Provide technical assistance to prepare draft of RAD-API	\$ 12,857				\$ 4,286	\$ 4,286	\$ 4,286			
Activity	5.1.2 Facilitate workshops to prepare Adaptation Action Plans for Rote Ndao and Sabu Raijua Districts	\$ 22,857				\$ 22,857					
	5.1.3 Facilitate stakeholder consultation workshops on Draft of Adaptation Action for Rote Ndao and Sabu Raijua Districts	\$ 14,286					\$ 14,286				
	5.1.4 Facilitate workshop on integration of Adaptation Action Plans with SEA/RP/JMD of Rote Ndao and Sabu Raijua Districts	\$ 17,143						\$ 17,143			
<b>OUTPUT</b>	<b>5.2 Strengthened DKPPNTT as a multi stakeholder forum to improve ICM approach in Savu seascape that takes into account climate adaptation issue</b>	<b>\$ 34,286</b>									
Activity	5.2.1 Develop policy brief on ICM approach to increase climate resilience in Savu Seascape	\$ 8,571						\$ 8,571			
	5.2.2 Facilitate Workshop to disseminate Policy Brief on ICM approach to increase climate resilience in Savu Seascape	\$ 8,571							\$ 8,571		
	5.2.3 Facilitate Multi Stakeholder Forum (DKPPNTT) Workshop to roadmap for integrating the policy brief recommendation with coastal & marine spatial/development plans	\$ 17,143								\$ 8,571	\$ 8,571
<b>OUTPUT</b>	<b>5.3 Climate resilience funding scheme for coastal and small islands of Rote and Sabu through Ecological Fiscal Transfer (EFT) scheme</b>	<b>\$ 31,714</b>									
Activity	5.3.1 Provide technical assistance to prepare EFT scheme document	\$ 10,286						\$ 5,143	\$ 5,143		
	5.3.2 Facilitate workshop to define EFT scheme	\$ 7,143							\$ 7,143		
	5.3.3 Facilitate stakeholder consultation workshop on EFT scheme	\$ 8,571								\$ 8,571	
	5.3.4 Facilitate workshop to institutionalize and prepare M&E plan for EFT scheme	\$ 5,714									\$ 5,714
<b>OUTPUT</b>	<b>5.4 Coastal ecosystem restored/ managed that are monitored and registered in the SRN.</b>	<b>\$ 46,429</b>									
Activity	5.4.1 Provide equipment for POKMASWAS	\$ 21,429				\$ 21,429					
	5.4.2 Train POKMASWAS	\$ 14,286					\$ 14,286				
	5.4.3 Facilitate village registration in SRN	\$ 10,714								\$ 10,714	
<b>B. PROJECT EXECUTION COST</b>		<b>\$ 87,143</b>	<b>9.4%</b>								
	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 (internet, electricity) in Rote Ndao and Sabu Raijua	\$ 27,429		\$ 13,714				\$ 13,714			
<b>C. IMPLEMENTING ENTITY FEE</b>		<b>\$ 74,929</b>	<b>8.1%</b>								
	IE 1 Project identification and development	\$ 3,500		\$ 3,500							
	IE 2 Project implementation and supervision	\$ 50,000			\$ 16,667		\$ 16,667		\$ 16,667		
	IE 3 Evaluation	\$ 21,429									\$ 21,429
<b>TOTAL</b>		<b>\$ 999,714</b>		<b>\$ 44,321</b>	<b>\$ 109,345</b>	<b>\$ 185,250</b>	<b>\$ 195,131</b>	<b>\$ 206,250</b>	<b>\$ 135,988</b>	<b>\$ 58,821</b>	<b>\$ 64,607</b>

### III.H. DISBURSEMENT SCHEDULE

Table Disbursement Schedule.

Payment	Milestones	Schedule	Amount
Termin 1	Upon sign of agreement	1st month	\$ 153,667
Termin 2	Upon Progres & Financial Reports Q1-Q2 are accepted	7th month	\$ 380,381
Termin 3	Upon Progres & Financial Reports Q3-Q4 are accepted	13th month	\$ 342,238
Termin 4	Upon Progress & Financial Reports Q5Q6 are accepted	18th month	\$ 123,429
	TOTAL		\$ 999,714



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

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

100. 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
<b>Imam Fauzi, S.S. M.Eng.</b> 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.
<b>Johanna E. Lisapaly, S.H., M.Si.</b> Head of Provincial Development Research and Planning (BAPPELITBANDA) NTT Province.	July 7, 2022.
<b>Drs. Haludin Abdullah, M.Si.</b> Head of District Development Planning (BAPPEDA), Sabu Raijua District	July 5, 2022
<b>Jermi. M. Hanging, PhD.</b> Head of Provincial Development Research and Planning Rote Ndao District .	July 12, 2022

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

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### IV.B. Implementing Entity certification

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

**List of ANNEXES:**

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

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**MINISTRY OF ENVIRONMENT AND FORESTRY**  
**DIRECTORATE GENERAL OF CLIMATE CHANGE**

Manggala Wanabakti Building Block VII 12<sup>th</sup> 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](mailto: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 Watershed Landscapes 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 Resilience 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 through 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)



## 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	<b>1 September 2022</b>
Completion date of PFG	<b>30 November 2022</b>


### 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