Environment Monitoring Report

Semiannual Report
Period: June to December 2021

Indonesia: Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (INO-COREMANP-CTI) - Nusa Penida, Gili Balu and Gili Matra.

Prepared by the National Development Planning Ministry – Indonesian Climate Change Trust Fund for the Asian Development Bank.

CURRENCY EQUIVALENTS
(As of 1 January 2022)

Currency Unit – IDR 1.00 = $ 0.00001032
$1.00 = IDR 14,242

ABBREVIATIONS

ADB	-	Asian Development Bank
AMDAL	-	*Analisis Mengenai Dampak Lingkungan Hidup* or Indonesian Environmental Impact Assessment system
ANDAL	-	*Analisis Dampak Lingkungan* or Environmental Impact Assessment
BAPEDAL	-	*Badan Pengendalian Dampak Lingkungan* (Environmental Impact Control Agency)
BAPEDALDA	-	*Badan Pengendalian Dampak Lingkungan Daerah* (Sub National Environmental Impact Control Agency)
BAPPENAS	-	*Badan Perencanaan Pembangunan Nasional* (National Development Planning Agency)
BKKPN	-	*Balai Kawasan Konservasi Perairan Nasional (BKKPN) Kupang* (National Marine Conservation Center (BKKPN) of Kupang)
BPLHD	-	*Badan Pengelolaan Lingkungan Hidup Daerah* (Local Environmental Management Agency)
Bupati	-	Head of District
COREMAP	-	Coral Reef Rehabilitation and Management Program
CTI	-	Coral Triangle Initiative
CTC	-	Coral Triangle Center (Project Implementation Partner)
DG	-	Directorate General
EARF	-	Environmental Assessment and Review Framework
EIA	-	Environmental Impact Assessment
EMU	-	Environmental Management Unit
GEF	-	Global Environment Facility
GoI	-	Government of Indonesia
Ha	-	Hectare
ICCTF	-	Indonesia Climate Change Trust Fund
IDR	-	Indonesian Rupiah
Km	-	Kilometer
LPSTK	-	*Lembaga Pengelola Sumberdaya Terumbu Karang (*Coral Reef Resource Management Agency*))*
MMAF	-	*Kementarian Kelautan dan Perikanan or KKP* (Ministry of Marine Affairs and Fisheries)
MoU	-	Memorandum of Understanding
MPA	-	*Kawasan Konservasi Laut Daerah* (Marine Protected Area or KKLD)
NGO	-	Non-governmental organization
PIU	-	Project Implementation Unit

PMO	-	Project Management Office
POKMAS	-	Community groups
Rp	-	Rupiah
SPPL	-	Statement of readiness to manage and monitor the environment
TIA	-	Trans Intra Asia (Project Implementation Partner)
UKL	-	Environmental Management Plan (UKL)
UPL	-	Environmental Monitoring Plan (UPL)
UPT	-	Technical Implementing Unit
USD	-	United States Dollar

Introduction and Project Overview[1]

Project Number and Title:	Project G0379-INO: COREMAP CTI
Social Safeguards Category	B – Project judged to have some adverse environmental impact, but of lesser degree and/or significance than those for category A project, and requiring (IEE) including environmental management plan (EMP).
Reporting period:	June to December 2021
Description of works	Nusa Penida: - Mangrove Tracking & Bird Watching Tower - Surveillance Tower - Information Centre Gili Balu: - Surveillance Tower (2 unit) - Information Centre - Mooring Buoy Gili Matra: - Surveillance Tower - Information Centre
Last report date:	-
Key sub-project activities since last report:	-

A. Executive Summary

This Semi-Annual Environment Safeguards Monitoring Report for Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (INO-COREMAP-CTI) of Nusa Penida, Gili Balu and Gili Matra covers the period from June 2021 to December 2021. Refer to the Initial Environmental Examination (IEE) prepared for the proposed three project area concluded that, the project is categorized as “B” for Environment categorization as per its potential adverse environmental impact are less. The development process consists of (1) Mangrove tracking, bird watching, monitoring towers, and an information center located in Nusa Penida, Bali Province. (2) The monitoring tower, information center, and mooring buoy are located in Gili Balu, West Nusa Tenggara Province. (3) Monitoring Tower and Information Center located in Gili Matra, West Nusa Tenggara Province. These areas were selected based on the identification of critical gaps with a geographic targeting to ensure coverage of target regions. It will create no significant adverse environment impact, some negative impact identified can be easily mitigated by adopting environmental management plan (EMP) and or Construction Environmental Management Plan (CEMP) that will be prepared. In this reporting period no progress has been made on the status of environmental permits, hence several environmental assessment requirements prior to construction such as the preparation of SPPL or UKL UPL documents will also be carried out to minimize environmental impacts.

All the project activities comply with the concerned laws and regulations of Indonesian Government. The screening of the project sites and the preparation of IEE- environment was based on the, ADBs Safeguard Policy Statement 2009. After implementation, the subproject will assist the community for improvement of the management effectiveness of Marine Protected Area (MPA) Nusa Penida, Gili Balu and Gili Matra. Further, the surveillance tower aims to support the operational of Surveillance Group, the mangrove tracking, bird watching and information center will support ecotourism activity. The project output indirectly contributes to gender equality and gender responsiveness.

Environmental survey and public consultation have been carried out during the design phase as well as implementation phase of the project. The proposed subproject is a small-scale construction, and most of the impacts are concentrated in the construction phase. The impact on air quality will be minimal because all the proposed alignments are accessible, moreover, the activities are not concentrated in one place (localized) but are widespread dispersed that provide adequate buffering for the air environment. Therefore, the impact on air quality from construction activities is considered insignificant. Furthermore, no liquid waste is generated due to project activities. However, a small amount of domestic effluent from staff residences and construction camps is generated which is discharged into local soaking pits (small irrigation canals will be provided to collect and drain construction project output). The main source of noise during the construction phase comes from equipment and transport vehicles. However, no significant variation in noise levels from construction-related activities is expected. The views raised at the consultation and survey were incorporated in the design. Issues raised are being addressed during the implementation phase to ensure that the environment in the project area are not affected adversely by implementation of the project.

B. Background of the Report and Project Description

Background of the Report

This Semi-Annual Environmental Safeguard Monitoring Report for Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (INO-COREMAP-CTI) of Nusa Penida, Gili Balu and Gili Matra covers the period from June to December 2021. The objective of the report is to provide an overview of the progress made in the implementation of the Environmental Safeguard activities during this reporting period. It provided information on environment safeguard activities related to initiative environmental examination (IEE) and the environmental monitoring and reporting requirement set out the ADB Safeguard Policy Statement (SPS) 2009. Environment impact mitigation measures adopted in the form of Environmental Management Plan (EMP) and or Construction Environment Management Plan (CEMP). It describes the project's performance in dealing with environment impact occur pre-construction, construction and operation phase.

Description of the Project

The Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (COREMAP–CTI, the Project)[2] aims to manage coral reef resources, associated ecosystems and biodiversity in a sustainable manner for increasing the incomes of coastal communities. Indonesia is the world's largest archipelagic nation, with 18% of the world's coral reefs with the richest biodiversity in the world. Low coastal community awareness and inadequate institutional capacity to manage land and marine-based pollution, insufficient institutional framework to effectively manage marine protected areas (MPAs), and persistent poverty in coastal areas have resulted in 2019 that 70% of Indonesian coral reefs becoming degraded[3]. To address these root causes, the Government of Indonesia has taken a three-phased incremental approach with interventions focusing on: (i) institutional capacity building; (ii) development of models for MPAs; and (iii) reduction of coastal poverty through income generating infrastructure and sustainable alternative livelihoods. The Project is the third and final phase of the three phases and will follow a sector financing modality with a community driven development (CDD) approach.

Consistent with the successful implementation arrangements under COREMAP Phase II, the Bappenas ICCTF will serve as the executing agency and Implementing Agency. COREMAP-CTI upholds the objective of strengthening capacities of key stakeholders with respect to decentralized co-management of Marine Protected Areas through a Community Driven Development (CDD) approach. Communities will have a role in the selection of subprojects and participate in the development of coral reef management plans and policies. Communities will be involved in the planning, designing, implementation/construction, and monitoring of (i) small-scale infrastructures specifically through a community contracting process; (ii) alternative livelihood development by taking a lead role in its development, promotion and implementation; and (iii) biodiversity management in partnership with NGOs, private sector and any other local stakeholders.[4]

---

[2] The Government requested to change the Project title to Coral Reef Rehabilitation and Management: Coral Triangle Initiative (COREMAP-CTI) from COREMAP3-CTI Support Project, as reflected in ADB. 2012. *Country Operations Business Plan: Indonesia, 2013–2014.* Manila.

[3] The Status of Indonesian Coral Reefs 2019, LIPI, Indonesia

[4] Subprojects within, but not limited to the following sectors/concerns: infrastructure, livelihoods, and bio-diversity management.

Sustainable management of the coral reef ecosystem is a major objective of Indonesia's subsector goal of marine and coastal resources protection.

The Project Impact and Outcome

The impact of the Project will be sustainable management of coral reef ecosystems in selected project areas. The outcome of the Project will be enhanced capacity to manage coral reef ecosystems inside target MPAs through coral reef management and institution strengthened this will including capacity development on coastal and marine management, ecosystem based resources management developed, including woman participation and ecosystem rehabilitation, sustainable marine based livelihood improved this will including community assistance to improve sustainable fisheries management, sustainable seaweed farming, and sustainable marine ecotourism through ecotourism group.

The Project's Outputs. The Project has four outputs:

(i) Output 1: coral reef management and institutions strengthened

This output has two sub-outputs comprise (a) Marine Protected Area (MPA) management plan implementation enhanced; and (b) Capacity development and targeted training on coastal and marine management. The first sub-output will be focus on implementation activities that relevant to the management plans of marine protected area, implementation of management action plans based on regional characteristics (ecotourism) and implementation on sustainable financing mechanism. Main action will include establishing protocols and guidance on co-management agreements between and among governments in order of the implementation of Law 23/2014, integrating ecotourism elements into MPA management plan and implementation, and establishing sustainable financing mechanism in coordination with existing and planned programs of other organizations. Furthermore, the second sub-output will be focus on strengthening human resource capacity of key stakeholders from district, provincial, and as needed, central government professional on marine and coastal management to improve management institutions. This sub-output will be conducted through short-term training for up to 35/40 participants and international master degree programs for up to four candidates, with gender proportionate representation.

(ii) Output 2: ecosystem-based resources management developed

The objective of this output is to restore the function of coastal ecosystems in selected rehabilitation zones of project MPAs. This will be based on initial cursory assessments already done by MMAF and its partners for the MPAs. Specific activities are: (i) identification for mangrove and coral reef restoration sites; (ii) project coordination meeting (iii) provide workshop and assessments on appropriate method to restore and rehabilitate mangrove and coral reef;(iv) conduct cost-benefit analysis on mangrove and coral reef rehabilitation; (v) restored at least 5% of degraded coral reef existing areas; (vi) restored at least 20% of degraded mangrove existing areas (vii) conduct monitoring and maintenance of mangrove and coral reef rehabilitation sites; (viii) conduct community awareness and public campaign; (ix) conduct capacity development on MPA law enforcement; (x) establish surveillance post; and (xi) supporting community surveillance activities.

(iii) Output 3: sustainable marine-based livelihoods improved

This output will implement the sustainable commodities management for tuna, snapper, and seaweed through the preservation of the traditional wisdom that has been used for generations in

the project areas and newly develop sustainable marine resources initiatives in local and national level. Furthermore, this output to ensure the sustainability of marine product value chains for local fishers and seaweed cultivation families in the project sites. Performance indicators with targets for this output include: (i) Sustainable fisheries management/supply chains for tuna and snapper fisheries in selected communities improved. (ii) Sustainable seaweed farming/supply chain for seaweed enterprise in selected communities improved. (iii) Enhanced livelihood capacity for at least 3 community-based enterprises with training for home industry in 10 villages and at least 100 participants. Activities under this output include: (i) engagement of delivery and identification of potential sites in Nusa Penida for seaweed, and other potential fisheries commodity in Gili Matra and Gili Balu (ii) identification of potential cultivation site for seaweed and landing site for snapper fish and tuna fish; (iii) biophysical surveys and study on supply chain and market analysis of tuna fish, snapper fish, seaweed in project area; (iv) establishment of sustainable seaweed cultivation in Nusa Penida, and harvest strategy for fisheries in Gili Matra and Gili Balu; (v) post-harvest management improvement; (vi) packaging and marketing improvement for seaweed and fisheries product; (vii) cross visit/ learning exchange in sustainable fisheries and seaweed.

(iv) Output 4: project management

The project will support implementing agencies in administration and financial aspects to meet both ADB and Government regulations on, procurement and financial requirements. This output will manage and implement project activities, and also establish monitoring and evaluation system including monitoring of ecosystem health indicator as well as institutionalize national coral reef management arrangements.

C. Description of the Project

Project Location Plan

Need for project. Low coastal community awareness and inadequate institutional capacity to manage land and marine-based pollution, insufficient institutional framework to effectively manage marine protected areas (MPAs), and persistent poverty in coastal areas have resulted in 70% of Indonesian coral reefs becoming degraded. The Government of Indonesia plans to address these root causes of resource and environmental degradation by undertaking this project.

Location. The Project will be implemented in areas of three districts in two provinces in Bali and West Nusa Tenggara. Additional project activities will focus on MPA management effectiveness at three national MPAs: MPA Nusa Penida in District Klungkung, Province of Bali; and then MPA Gili Balu in West Sumbawa District and MPA Gili Matra in North Lombok District of West Nusa Tenggara province.

Magnitude of Operation. The ADB-financed portion of the project would cover (MPAs) in Province Bali and West Nusa Tenggara (NTB) as Indonesia Super Premium Tourism Destination.

Proposed Main and Supporting Activities

Description of Project Components. The Project has four major components or outputs:

- Output 1: Coral reef management and institutions strengthened. This component will focus on strengthening and institutionalizing capacities develop in three MPAs, Nusa Penida, Gili Matra and Gili Balu.
- Output 2: Ecosystem based resources management developed. This component will strengthen MPA management effectiveness and biodiversity conservation.
- Output 3: Sustainable marine-based livelihoods improved. This component will promote sustainable livelihoods and income-generating infrastructure.
- Output 4: Project coordination and management.

The subproject area has a lot of amazing natural beauty, including beaches, diving spot or snorkeling to see underwater creature. Various types of impacts are predicted to arise as a result of the planned subproject infrastructure activities development. Environmental Management and Monitoring efforts that need to be done in an effort to increase the positive impact and minimize the negative impacts that will occur can be described in this document.

The biodiversity and fishery resource are under threat and some coral reefs have been damaged from destructive fishing practices. Overfishing of some species has placed them in an endangered category and the government has taken steps to carry out surveys and draft a management plan. This regional MPA requires establishment of biodiversity inventory and monitoring, stock assessments and monitoring, management support, capacity building, awareness raising and empowerment of local people to co-manage the resource and establish environmentally responsible tourism.

The outcome of the subproject is to enhance management effectiveness of Marine Protected Area (MPA) Gili Balu to be optimum managed. The main outputs are: (i) management plan implemented; (ii) biodiversity conservation and ecosystem-based fisheries management enhanced; (iii) basic infrastructure for management operations provided; and (iv) financial sustainability and livelihoods enhanced

The basic infrastructures of the subproject are listed in table below:

Table 1 Subproject intervention

No	Infrastructure	Number of Unit	Location	Estimated Building Requirement (m^2)
1	Information Center	1 unit	Dinas KP, Batununggul	Est 6x5 m
2	Surveillance Post	1 unit	Dinas KP, Batununggul	Est 7x6 m
3	Mangrove tracking & bird watching	1 unit	Ceningan Harbour complex	Est 100 m for mangrove tracking and 15M heigh for the bird watching tower.
4	Information Center	1 unit	Poto Tano Harbour complex	Est 8 x 8 = 64m^2 Land Est 500m^2
5	Mooring Buoy	8 units	MPA - Gili Balu Islands	Est area 0,70 ha

No	Infrastructure	Number of Unit	Location	Estimated Building Requirement (m^2)
6	Surveillance Tower	2 unit	Namo Island and Paserang Island, Gili Balu	5x5m = 25m^2
7	Information Center	1 unit	Teluk Nare, NTB	Est building area 6x6m = 36 m^2
8	Surveillance Post	1 unit	Gili Trawangan, NTB	6,5m x 7m = 45,5m^2 High Est 5,5m.

Project Phase. The Project is proposed to be implemented within two years from 2020 to 2022, with the Directorate of Marine and Fisheries, Bappenas, and Indonesia Climate Change Trust Fund (ICCTF) as Executing Agency and Implementing Agency (EA/IA). The IA engaged the Project's Consultant to implement the COREMAP CTI Project called Grant Package (GP) 1 to GP7, more details related to implementation partner/consultant are available in the institutional arrangement section (section L). The infrastructure utilization process will involve 30 community groups consisting of surveillance groups (7 groups), ecotourism groups (2 groups), Coral restoration groups (2 groups), Mangrove restoration groups (2 groups), seaweed processing group (4 groups), Fish processing group (11 group) and Fisheries group (2 group).

Table below presents the work volume include quarry sources will be used in the subproject infrastructure, as follow:

Table 2 Work volume of subproject components

No	Infrastructure	Work volume		
		Quarry resources	Wood*	Other material
Nusa Penida				
1	Information Centre	52.5 m^3	105 m^3	
2	Surveillance post	155 m^3	1,456 m^3	
3	Mangrove Tracking and Bird watching	622 m^3	5,083 m^3	
Gili Balu				
4	Information Centre	52.5 m^3	5 m^3	
5	Surveillance tower	155 m^3	5 m^3	
6	Mooring Buoy	1 m^3	-	
Gili Matra				
7	Information Centre	52.5 m^3	5 m^3	
8	Surveillance post	65 m^3	5 m^3	

Note: * The wood is commonly provided and legally used

Electrical and communication facilities during construction:

- Construction activities in Nusa Penida will use PLN electricity which is connected to the construction site area, while communication will use a radio rig.
- Construction activities in Gili Balu will use electricity from solar panels that will be installed around the construction site, while for communication will use cellular phones, considering the signal is quite good at the construction site.
- Construction activities in Gili Matra will use electricity from PLN which is connected to the construction site area, while communication will use cellular telephones, considering the very good signal at the construction site.

Implementation Schedule. The schedule of implementation for Output 3: Basic infrastructures are shown in Table 3 below.

Table 3 Schedule of Implementation

Type of Interventions	Unit	Physical Target	Implementation Schedule				
			Q-3 2021	*Q-4 2021*	*Q-1 2022*	*Q-2 2022*	*Q-3 2022*
Detailed Engineering Design							
Nusa Penida							
Information Centre	1	Unit					
Mangrove Tracking & Bird Watching	1	Unit					
Surveillance post	1	Unit					
Gili Balu							
Ecotourism Center	1	Unit					
Mooring Buoy	8	Unit					
Surveillance Tower	2	Unit					
Gili Matra							
Information Center	1	Unit					
Surveillance Post	1	Unit					

D. Environmental Category and Document Progress

As per Asian Development Bank's (ADB) classification of project on the basis of potential environmental impacts, The Mangrove tracking, bird watching, information center and surveillance tower project in Nusa Penida, Gili Balu and Gili Matra is classified as Environmental Category "B".

Environmental Performance Indicator

The following parameters which are considered as key indicator for this project need to be monitored to evaluate the environmental performance.

- Selection of optimum route which has least impact on environment and also avoids protected area/ecological sensitive area/ historical or cultural monuments.
- Compliance with all applicable statutory requirement
- Compliance with Environment Management Plan

Screening and Categorization of Subproject Component

This report has been prepared in accordance with the ADB's SPS 2009. The SPS 2009 governs the environmental and social safeguards of ADB's operations. Environmental Safeguard Requirements 1 (SR1) of the SPS outlines the requirements that borrowers/clients are required to meet when delivering environmental safeguards for projects supported by the ADB. These requirements include assessing impacts, planning and managing impact mitigations, preparing environmental assessment reports, disclosing information and undertaking consultation, establishing a grievance mechanism, and monitoring and reporting. SR1 also includes specific environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical culturalresource

The ADB Rapid Environmental Assessment (REA) checklists (See Appendix 2) screening process, as applied to the Nusa Penida, Gili Matra and Gili Balu MPA Effectiveness Subproject interventions, results in the identification of the following potential impacts and mitigation measures (Table 4):

Table 4 Summary of environmental impact and mitigation measures of Subproject

Component	Impact	Mitigation	Residual impact
Nusa Penida			
Information center	***Positive.*** The center will provide various information concerning interesting attraction around Nusa Penida including to visit sunfish ***Negative.*** Mass tourism might be occurred, especially to visit *sunfish* in the Nusa penida	The tourism management system should be applied to balance the total visitor and the carrying capacity	The existence of charismatic species may be more exploited
Surveillance post	***Positive***. The Community surveillance group will be facilitated and extend monitoring area. ***Negative***. Need sustainable financing to support the surveillance patrol activities	The management authority, UPTD Nusa Penida should develop innovative sustainable financing for surveillance patrol activities	To ensure the Continuity of the surveillance patrol activities under the proper SOP of the sea patrol
Tracking mangrove & bird watching tower	***Positive***. To introduce the mangrove ecosystem to community and build awareness to protect the ecosystem ***Negative***. Increasing littering around the infrastructure	The management authority, UPTD Nusa Penida collaborate with Nusa Ceningan's community to manage the solid waste and control the visitor to keep the area clean	To ensure the environmental around the area is protected
Gili Balu			
Ecotourism center	***Positive***. The ecotourism center will provide various information concerning interesting tourism attraction around Gili Balu ***Negative.*** Visitor might influence for local people on	The Tourism agency should promote proper tourism based on beauty and traditional value of west sumbawa people	To ensure the visitor keep the environment of Gili balu cleanliness, beauty and original culture

	culture, value, custom and service to visit MPA Gili Balu		
Surveillance tower	***Positive.*** The Community surveillance group will be facilitated and extend monitoring area. ***Negative.*** Need sustainable financing to support the surveillance patrol activities	The management authority, CDK (Maritime affairs and Fisheries Service Branch) Sumbawa – Sumbawa Barat should develop innovative sustainable financing for surveillance patrol activities (this will refer to local activity and best practices under national regulation)	To ensure the continuity of the surveillance patrol activities under the proper SOP of the sea patrol (create by DKP prov NTB, facilitated by COREMAP via GP3 and has been final drafted waiting for approval), the SOP will refer to KEPMEN KP No, 58 year of 2001 related to SISMASWAS
Mooring Buoy	***Positive.*** The boat will be facilitated for stay for a while in certain islands in MPA Gili Balu ***Negative.*** The boats have limited understanding to maintain the existence of mooring buoy in the MPA Gili Balu	There will be local instrument to ensure operational and maintenance of mooring buoy (such as retribution/ entrance fee for tourist boat)	To ensure the maintenance of the mooring buoy will be operated long term and sustainable. And it will refer to MPA management plan for Gili Balu.
Gili Matra			
Information center	***Positive***. The information center will provide various information concerning interesting tourism attraction and Transportation arrangement around Gili Matra ***Negative.*** Visitor might limit information travel arrangement in MPA Gili Matra	The Transportation and Tourism agency should promote ecotourism based on the natural beauty, traditional value and promoting conservation value of MPA Gili Matra	To ensure the visitor keep the environment of Gili balu cleanliness, beauty and original culture
Surveillance post	***Positive.*** The surveillance post will increase the effectiveness of monitoring in conservation areas. ***Negative.*** Need sustainable financing to support the surveillance patrol activities	The management authority, BKKPN Area Gili Matra and Local Government of North Lombok should develop innovative sustainable financing for surveillance patrol activities	To ensure the Continuity of the surveillance patrol activities under the proper SOP of the sea patrol

Status on Environmental Safeguard Document

The EARF subproject comprises several subprojects that should be completed with environmental safeguard document and approvals according to the requirements of ADB and Indonesian Government, table below present the status of environmental safeguard requirements and documents requirement for respective subproject as of Dec 2021.

Table 5. Environmental Safeguard Status of Subproject (as of Dec 2021)

Subproject	Status of ADB's Environmental Safeguard	Status of Indonesian Government Requirements
Nusa Penida		
Mangrove Tracking & Bird watching tower Surveillance Post Information Center	IEE being drafted, DED consultant has not been awarded.	The UKL-UPL or SPPL (statement of readiness to manage and monitor environment) pending, subproject development location being consulted to the government, community and related partners. Document No. B.22.523.32/1315/ UPTD.KKPB/Diskelkan, dated September 13, 2021) on the approved area for subproject infrastructures by the Gov. of Bali Province has received
Gili Balu		
Surveillance Tower Information Center Mooring Buoy	IEE being drafted, DED consultant has not been awarded.	The UKL-UPL or SPPL (statement of readiness to manage and monitor environment) pending, subproject development location being consulted to the government, community and related partners. Document No. 1245, Year 2021 on the utilization of land of Government of West Sumbawa for development subproject has received on October 22, 2021.
Gili Matra		
Surveillance Post Information Center	IEE being drafted, DED consultant has not been awarded.	The UKL-UPL or SPPL (statement of readiness to manage and monitor environment) pending, subproject development location being consulted to the government, community and related partners.

E. Compliance status with environment management and monitoring plan stipulated in IEE and as agreed with ADB

The instant project is being implemented as per approved IEEs and EMPs/CEMPs and in accordance with ADBs Safeguard Policy Statement 2009. All subproject has prepared Initial Environmental Examination (IEE) report including Environmental Management Plan (EMPs) and Construction Environment Management Plan (CEMP) to ensure that all the anticipated environment impact due to the project activities are minimized wherever possible. The EMPs describes detailed site-specific mitigation measures and monitoring plans for impact anticipated during different stages of the proposed project i.e., pre-construction, construction, and operation & maintenance phase. A summary of monitoring requirement has also been included which identifies when and where the parameter will be monitored, how often and against what aspect. For proper implementation of EMPs/CEMPs and other mitigation measures separate fund has been allocated in the project cost.

F. Environment Management Plan

In the implementation process, each development sub-project will have an environmental management plan (EMP) and a CEMP (Construction management plan) which refers to the EMP in the IEE, in the period June to December 2021, 4 EMP sub-projects have been made, namely EMP for the development of Mangrove tracking and bird watching, EMP for the construction of Pondok Information, Monitoring Tower and Mooring Buoy in Gili Balu, with details as follows:

Table 6 Environmental Management Plan for Mangrove Tracking and Bird Watching Tower in Nusa Penida

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
			Pre-Construction					
1.	Socialization of activity plans ..	The occurrence of negative public perceptions.	Medium, but after getting an explanation about the process of implementation of activities that will be carried out later and the handling that has been prepared to minimize the impact that will occur is expected the public began to understand and welcome the plan of this development	• Conduct direct socialization to the community to provide clear and transparent information related to the benefits, positive impacts and negative impacts of the project. • Announce planned activities through print and electronic media. • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities of Information Center • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities. • Cooperation with Nusa Penida sub-district officials in dealing with social problems arising from project activities.	Around the project area	Socialization will be carried out at the time of initial planning, public consultation to gather input on building needs, at the time of making engineering design details and finalizing the DED during pre-construction activity.	**5,000,000**	**A. Executor:** CTC and PT TIA (Project Implementation Partner) **B. Supervisor:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District **C. Report recipients:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District
2	Land clearing for the mangrove tracking and bird watching tower	The occurrence of negative impact on the existence of mangrove ecosystem	Medium, but to ensure the contractor will keep the existence of mangrove tree	• Conduct briefing to the contractor concerning clear procedure (SOP) on construct the pile for mangrove tracking as refer to The Management Plan and Zonation for MPA Nusa Penida, Klungkung District, Province of Bali (Marine and Fisheries Agency Bali,	Around the project area	Once a week during construction phase	**50,000,000**	**Executor:** CTC and PT TIA (Project Implementation Partner) **B. Supervisor:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District **C. Report recipients:** DLH Bali Province, Bali Provincial Transportation

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				2017) • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities. • Cooperation with Nusa Penida sub-district officials in dealing with social problems arising from project activities.				Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District
Construction								
1.	Mobilization of equipment and materials, construction of physical buildings and demobilization of equipment and building materials.	• Decreased air quality and noise • Traffic disruptions The mangrove	• small, impact will occur whenever there are activities (at any time) ○ Small, because the volume of movement of project vehicles for the purposes of mobilization of	• Material carrier vehicles use covers to reduce dust. • Watering all the way in front of the project site and around the site periodically. • Handing out masks to employees and the community in the vicinity of the activity site. • Provide briefings and early warning about the symptoms of deterioration in air quality. • Health check-up workers to the doctor or hospital • Place clear signs to indicate the exit and entrance of the activity site. • Arrangement of the operational schedule of material transport vehicles so as not to coincide with the peak time of general	The roads traversed by vehicles transporting equipment and materials around the project site.	Every day during construction activities, especially in the implementation of mobilization of equipment and materials.	**15,000,000** **15,000,000**	**A. Executor:** CTC and TIA (Project Implementation Partner) **B. Supervisor:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung District Transportation Office, Klungkung Regency PU Office and Klungkung Regency Health Office. **C. Report recipients:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung District Transportation Office, Klungkung Regency PU Office and Klungkung Regency Health Office. DLH of Bali Province and Klungkung Regency Health Office

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
		tracking and bird watching tower will use the certified wood of Bangkirai (yellow Balau)	equipment, and materials including disposal material in construction activities is carried out gradually and supervise this activity so that the use of vehicles with heavy loads can be selected.	traffic. • Regulation of material and material transport vehicle types • Installation of warning signs for maximum load weight • Socialize to the driver to always be careful, especially when crossing the exits and entrances of the activity site, and not parking carelessly • Make road repairs in case of damage to the road traversed by vehicles transporting materials • Make sure there is no disposal during construction and post construction				
2.	Base camp operations, equipment and materials warehouses, and physical development.	Occurrence of aesthetic decrease	Medium, due to the plan to make emergency buildings that serve as a support for activities at the construction stage such as base camp, material warehouse, and management office if not managed properly can cause slums that decrease aesthetics.	• Placing basecamp, warehouse materials, equipment, and waste materials away from settlements and social activities. The construction worker will clean up the area at the end of every stage of construction work • The branch and stick of the wood will be cleaned it up during the construction work and no mangrove trees will be cutter of during the construction, as part of the mitigation, the CTC will conduct mangrove rehabilitation action and planting 20,000 mangrove seed during the project implementation • Take the results of logging trees and roots as soon as	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		**A. Executor:** Initiator/organizer and contractor executing the activity. **B. Supervisor:** DLH Bali Province, Health Office and Klungkung District HygieneOffice, Nusa Penida Sub-District **C. Report recipients:** DLH Bali Province, Health Office and Klungkung District Hygiene Office, Nusa Penida

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				possible to the recommended dump. • Provide good toilet facilities for male and female • The mangrove track will be built along mangrove ecosystem that would no sedimentation identifed • Giving the workers so they always direction to pay attention to the cleanliness and aesthetics of the worksite environment				
4.	Secondary impact if the primary impact is not handled properly	The occurence of negative public perceptions	Medium, depending on the management and results of primary impact management that occurs.	• Technically manage all primary impacts that are technically inflicted as described on each impact. • Manage using a socioeconomic approach to all primary socioeconomic impacts as outlined in each impact. • Conducting ongoing socialization of activity plans, including Grievance Redress Mechanism (GRM) which will be managed by the Project Implementation Partner • The initiator takes a social approach to communities that may be directly affected	Around the project area	Conducted daily during construction activities	**5,000,000**	**A. Executor** Initiator/organizer of activities and contractors **B. supervisor:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung District Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District. **C. Report recipients:** DLH Bali Province, Bali Provincial Transportation Office, Klungkung District Transportation Office, Klungkung Regency PU Office, Nusa Penida
Operational Phase								
1.	Operational of Information Center	The occurrence of negative public perceptions	Medium, regarding their place to do their current activities so as not to change later after the construction of the Information Center	• Conduct inspection of Information Center building to comply with the planned DED. • Cleaning or returning the land used for base camp, where the material hoarding as it was originally. • The mangrove tracking and	Around the project area	every day during operational / post-construction activities and incidental in case of damage to	**50,000,000**	**A. Executor**: Organizer. **B. Ssupervisor**: DLH Bali Province, Bali Provincial Transportation Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida Sub-District **C. Report Recipients:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				bird watching will be part of the Ceningan Ecotourism Park managed by the Government of The Klungkung District • Provide sufficient maintenance funds on a regular basis so that in the event of immediate damage can be addressed / repaired by GRM which will be managed by Project Implementation Partner		the Information Center for a year		DLH Bali Province, Bali Provincial Transportation Office, Klungkung Regency Transportation Office, Klungkung Regency PU Office, Nusa Penida

Table 7 Environmental Management Plan for Information Center in Nusa Penida, Gili Matra and Gili Balu

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				Pre-Construction				
1.	Socialization of activity plans	The occurrence of negative public perceptions.	Medium	• Conduct direct socialization to the community to provide clear and transparent information related to the benefits, positive impacts and negative impacts of the project. • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities of Information Center • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities. • Cooperation with Gili Balu sub-district officials in dealing with social problems arising from project activities.	Nusa Penida, Gili Bali and Gili Matra	Socialization will be carried out at the time of initial planning, public consultation to gather input on building needs, at the time of making engineering design details and finalizing the DED during pre-construction activity.	**5,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
				Construction				
1.	Mobilization of equipment and materials, construction of	• Decreased air quality and noise	• Small,	• Material carrier vehicles use covers to reduce dust.	The roads traversed by vehicles transporting	Every day during construction activities, especially in the implementation of	**15,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
	physical buildings and demobilization of equipment and building materials.	• Traffic disruptions	○ Small,	• Watering all the way in front of the project site and around the site periodically. • Handing out masks to employees and the community in the vicinity of the activity site. • Provide briefings and early warning about the symptoms of deterioration in air quality. • Health check-up workers to the doctor or hospital • Place clear signs to indicate the exit and entrance of the activity site. • Arrangement of the operational schedule of material transport vehicles and conduct coordination with local transportation agency, so as not to coincide with the peak time of general traffic. • Regulation of material and material transport vehicle types • Installation of warning signs for maximum load weight • Socialize to the driver to always be careful, especially when crossing the exits and entrances of the activity site, and not parking carelessly • Make road repairs in case of damage to the road traversed by vehicles transporting materials • Make sure there is no disposal during construction and post construction (including hazardous disposal)	equipment and materials around the project site.	mobilization of equipment and materials.	**15,000,000**	DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
2.	Base camp operations, equipment and materials warehouses, and physical development.	Occurrence of aesthetic decrease	Medium,	• Placing basecamp, warehouse materials, equipment, and waste materials away from settlements and social activities. The construction worker will clean up the area at the end of every stage of construction work	Across the project site area, equipment and materials warehouse, and	Every day during construction activities		**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				• The branch and stick of the wood will be cleaned it up during the construction work • Provide good toilet facilities for male and female including a good sanitation • Giving direction to the workers so they always pay attention to the cleanliness and aesthetics of the worksite environment	base camp area.			DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
4.	Secondary impact if the primary impact is not handled properly	The occurence of negative public perceptions	Medium, depending on the management and results of primary impact management that occurs.	• Technically manage all primary impacts that are technically inflicted as described on each impact. • Manage using a socioeconomic approach to all primary socioeconomic impacts as outlined in each impact. • Conducting ongoing socialization of activity plans, including Grievance Redress Mechanism (GRM) which will be managed by the Project Implementation Partner • The initiator takes a social approach to communities that may be directly affected	Around the project area	Conducted daily during construction activities	**5,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Operational Phase					
1.	Operational of Information Center	The occurrence of negative public perceptions	Medium,	• Conduct inspection of Information Center and surveillance tower to comply with the planned DED. • Cleaning or returning the land used for base camp, where the material hoarding as it was originally. • Provide sufficient maintenance funds on a regular basis so that in the event of immediate damage can be addressed / repaired by GRM which will be managed by Project Implementation Partner with hotline (email and phone number) will be placed.	Around the project area	every day during operational / post-construction activities and incidental in case of damage to the Information Center for a year	**50,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

Table 8 Environmental Management Plan for Surveillance Post/Tower in Nusa Penida, Gili Matra and Gili Balu

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
			Pre-Construction					
1.	Socialization of activity plans	The occurrence of negative public perceptions.	Medium	• Conduct direct socialization to the community to provide clear and transparent information related to the benefits, positive impacts and negative impacts of the project. • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities of Information Center • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities. • Cooperation with Gili Balu sub-district officials in dealing with social problems arising from project activities.	Nusa Penida, Gili Matra and Gili Balu	Socialization will be carried out at the time of initial planning, public consultation to gather input on building needs, at the time of making engineering design details and finalizing the DED during pre-construction activity.	**5,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
2	Land clearing for the surveillance tower	The occurrence of negative impact on the existence of mangrove ecosystem in Namo and Paserang island	Medium,	• Conduct briefing to the contractor concerning clear procedure (SOP) on construct the pile for surveillance tower as refer to The Management Plan and Zonation for MPA Gili Balu, West Sumbawa District, Province of West Nusa Tenggara • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities.	Around the project area	Once a week during construction phase	**50,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Construction					
1.	Mobilization of equipment and materials, construction of physical buildings and demobilization	• Decreased air quality and noise	• small,	• Material carrier vehicles use covers to reduce dust. • Watering all the way in front of the project site and around the site periodically.	The roads traversed by vehicles transporting equipment and materials	Every day during construction activities, especially in the implementation of mobilization of equipment and materials.	**15,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
	of equipment and building materials.	• Traffic disruptions The Surveillance tower will use the certified wood of Bangkirai	○ Small,	• Handing out masks to employees and the community in the vicinity of the activity site. • Provide briefings and early warning about the symptoms of deterioration in air quality. • Health check-up workers to the doctor or hospital • Place clear signs to indicate the exit and entrance of the activity site. • Arrangement of the operational schedule of material transport vehicles and coordination with local transportation agency, so as not to coincide with the peak time of general traffic. • Regulation of material and material transport vehicle types • Installation of warning signs for maximum load weight • Socialize to the driver to always be careful, especially when crossing the exits and entrances of the activity site, and not parking carelessly • Make road repairs in case of damage to the road traversed by vehicles transporting materials • Make sure there is no disposal during construction and post construction (including hazardous disposal)	around the project site.		**15,000,000**	**D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
2.	Base camp operations, equipment and materials warehouses, and physical development.	Occurrence of aesthetic decrease	Medium,	• Placing basecamp, warehouse materials, equipment, and waste materials away from settlements and social activities. The construction worker will clean up the area at the end of every stage of construction work • The branch and stick of the wood will be cleaned it up during the construction work and no mangrove trees will be cutter of during the construction of	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				Surveillance Tower as part of the mitigation, the Sucofindo will conduct mangrove rehabilitation action and planting 20,000 mangrove seed during the project implementation • Take the results of logging trees and roots as soon as possible to the recommended dump. • Provide good toilet facilities for male and female • Giving direction to the workers so they always pay attention to the cleanliness and aesthetics of the worksite environment				DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
4.	Secondary impact if the primary impact is not handled properly	The occurence of negative public perceptions	Medium, depending on the management and results of primary impact management that occurs.	• Technically manage all primary impacts that are technically inflicted as described on each impact. • Manage using a socioeconomic approach to all primary socioeconomic impacts as outlined in each impact. • Conducting ongoing socialization of activity plans, including Grievance Redress Mechanism (GRM) which will be managed by the Project Implementation Partner • The initiator takes a social approach to communities that may be directly affected	Around the project area	Conducted daily during construction activities	**5,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Pre-Operational Phase					
1.	Operational of Surveillance Post	The occurrence of negative public perceptions	Medium,	• Conduct inspection of surveillance tower to comply with the planned DED. • Cleaning or returning the land used for base camp, where the material hoarding as it was originally. • Provide sufficient maintenance funds on a regular basis so that in the event of immediate damage can be addressed / repaired by GRM which will be managed by Project Implementation	Around the project area	every day during operational / post-construction activities and incidental in case of damage to the surveillance post for a year	**50,000,000**	**A. Executor:** Project Implementation Partner **B. Supervisor:** DLH Province of NTB and Bali, **C. Report recipients:** DLH Province of NTB and Bali **D. Coordination:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				Partner with hotline (email and phone number) will be placed.				DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

Table 9 Environmental Management Plan for Mooring Buoy in Gili Balu

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
			Pre-Construction					
1.	Socialization of activity plans	The occurrence of negative public perceptions.	Medium	• Conduct direct socialization to the community to provide clear and transparent information related to the benefits, positive impacts and negative impacts of the project specially for the mooring buoy subproject. • Put up a noticeboard at the location of the activity plan so that the public is aware of the development activities of Information Center • Create harmonious social interactions with the community and groups that are active around the project site as well as participate in various social activities. • Cooperation with Gili Balu sub-district officials in dealing with social problems arising from project activities.	Around the project area	Socialization will be carried out at the time of initial planning, public consultation to gather input on building needs, at the time of making engineering design details and finalizing the DED during pre-construction activity.	**5,000,000**	**A. Executor:** CBA and Sucofindo (Project Implementation Partner) **B. Supervisor:** DLH NTB Province, **C. Report recipients:** DLH NTB Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Construction					
1.	Mobilization of equipment and materials, construction of physical buildings and demobilization of equipment and building materials.	• Decreased water quality and noise	• Small, o Small,	• Material carrier vehicles use covers and will avoid to decrease water quality • Handing out buoy to employees and the community in the vicinity of the activity site. • Provide briefings and early warning about the symptoms of deterioration in air quality. • Health check-up workers to the doctor or hospital • Place clear signs to indicate the exit and entrance of the activity site. • Arrangement of the operational schedule of material transport vehicles including socialization to the fisherman around the construction site. • Regulation of material and material transport vehicle types	The roads traversed by vehicles transporting equipment and materials around the project site.	Every day during construction activities, especially in the implementation of mobilization of equipment and materials.	**15,000,000** **15,000,000**	**D. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **E. Ssupervisor**: DLH West Nusa Tenggara Province, **F. Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				• Central government permit issued in the form of "surat kesesuaian ruang laut no.291/MEN-KP/V/2022 • Installation of warning signs for maximum load weight • Socialize to the fisherman to always be careful, especially when crossing the exits and entrances of the activity site, and not parking carelessly • Make sure there is no disposal during construction and post construction (including hazardous disposal)				
2.	Base camp operations, equipment and materials warehouses, and physical development.	Occurrence of aesthetic decrease	Medium,	• Placing basecamp, warehouse materials, equipment, and waste materials away from settlements and social activities. The construction worker will clean up the area at the end of every stage of construction work • Provide good toilet facilities for male and female • Giving direction to the workers so they always pay attention to the cleanliness and aesthetics of the worksite environment including sanitary.	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		**A. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **B. Supervisor**: DLH West Nusa Tenggara Province, **C. Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
4.	Secondary impact if the primary impact is not handled properly	The occurence of negative public perceptions	Medium, depending on the management and results of primary impact management that occurs.	• Technically manage all primary impacts that are technically inflicted as described on each impact. • Manage using a socioeconomic approach to all primary socioeconomic impacts as outlined in each impact. • Conducting ongoing socialization of activity plans, including Grievance Redress Mechanism (GRM) which will be managed by the Project Implementation Partner	Around the project area	Conducted daily during construction activities	**5,000,000**	**A. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **B. Supervisor**: DLH West Nusa Tenggara Province, **C. Report Recipients:**

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
				• The initiator takes a social approach to communities that may be directly affected				DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
				Pre-Operational Phase				
1.	Operational of Information Center	The occurrence of negative public perceptions	Medium,	• Conduct inspection of Mooring Buoy to comply with the planned DED. • Cleaning or returning the land used for base camp, where the material hoarding as it was originally. • Provide sufficient maintenance funds on a regular basis so that in the event of immediate damage can be addressed / repaired by GRM which will be managed by Project Implementation Partner with hotline (email and phone number) will be placed.	Around the project area	every day during operational / post-construction activities and incidental in case of damage to the mooring buoy for a year	**50,000,000**	**A. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **B. Supervisor**: DLH West Nusa Tenggara Province, **C. Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

The Proposed Budget for community development plan for the each subproject area, as follow:

Table 10. Proposed Budget for community development plan for each subproject area

No	Activities	Estimate Budget
Nusa Penida for Mangrove tracking & bird watching tower, surveillance post and tourism information center sub project.		
1	Workshop and training	Rp. 1,600.000.000
2	Equipment	Rp. 1,500,000,000
	Total	**Rp. 3,100,000,000**
Gili Balu for ecotourism center, surveillance tower and mooring buoy sub project.		
1	Livelihood (capacity building and workshop)	Rp. 460,352,000
2	Surveillance activity (capacity building)	Rp. 715,044,000
3	Surveillance infrastructure (development of surveillance post, procurement of equipment and patrol boat, and mangrove rehabilitation)	Rp. 2,420,000,000
4	Integrate ecotourism element into MPA management plan implementation (including workshop and training to support ecotourism)	Rp. 205,183,900
5	Infrastructure for ecotourism and information center	Rp. 1,267,210,000
	Total	**Rp. 5,067,790,900**
Gili Matra for tourism information center and surveillance post sub project.		
1	Workshop and training	Rp. 3.000.000.000
2	Equipment, community business unit	Rp. 8.000.000.000
	Total	**Rp. 11,000,000,000**

G. Approach and Methodology Engaged for Environment Monitoring of The Project

Environment monitoring is a continuous process throughout the project life cycle starting from site selection to construction and maintenance state. A project management unit (PMU) has been set up a site coordinator headed by program leader at PIU to coordinate and implement all environmental and social issues with assistance of fungsional department like environmental and social safeguard in ADB Jakarta, Apart from that program coordinator in site or project partner in coordination with PIU and program officer will review the progress on daily basis and regular project review meetings held at least on monthly basis, where in environmental aspects of the project are discussed and remedial measures taken wherever required. In the other side, the Construction Environmental Management Plan (CEMP) would be provided by each contractor which refer to IEE/EMP and its form with comply and not comply check list will be monitors in regular basis through direct survey by implementing partner, Grievance Redress Mechanism will be implemented through hotline and or offline form during development of the subproject, more details on the GRM operation provided in section J.

Monitoring of Environmental Receptors/Attributes

The proposed project doesn't have much anticipated impact on environmental attributes like air, water, soil etc. and are mostly concentrated to construction stage. Air quality impact would be very minimum to the construction phase, since all the proposed alignments are accessible, no construction of access roads is envisaged thereby avoiding any airborne dust pollution in the subproject. The construction activities are small scale. Moreover, the activities are not concentrated to one place (localized) rather it is widely dispersed that provide adequate buffering to air environment. Therefore, impacts on air quality from construction activities are considered insignificant. Further, no liquid effluent is generated due to project activity. However, small quantities of domestic sewage from staff quarters and construction camp are generated which is discharged in local soak pits (a small irrigation canal will be provided to accommodate and drain the results of the development project). The main noise sources during the construction phase are from equipment and transportation vehicles. However, no significant noise level variation from construction related activities is anticipated.

Any other Monitoring of Environmental Aspects, Impact Observed During Implementation

Except the predicted impacts as mentioned in EMPs, no other unanticipated impacts were observed during the implementation of projects. As regard Safety, all required measures are in place including due precautions/awareness programs as well as ensuring use of PPEs, which is evident from the fact that no accidents (fatal or non-fatal) including major/minor injuries were reported during the reporting period from any of the construction sites.

H. Description of the Environment (Baseline Data)

Nusa Penida

Physical Environment

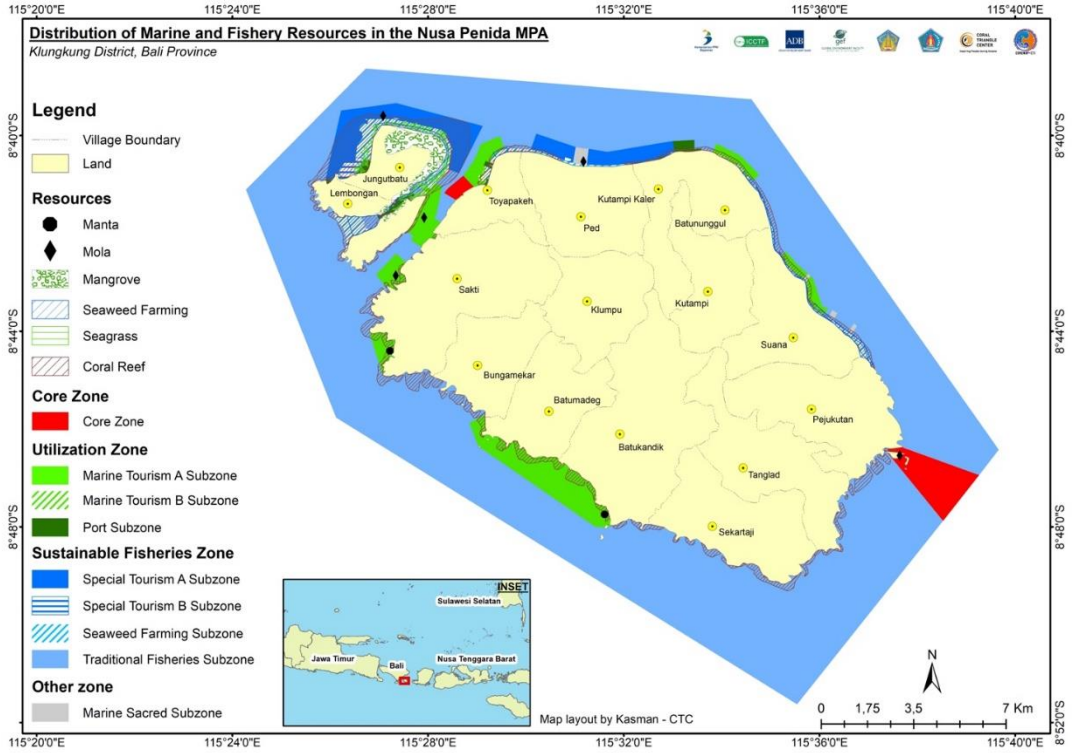
- **Climate**. Climate condition in Nusa Penida is dry season in April to October and rainy season in October to April, with temperature ranging from 27^0 C to 39^0C and the average rainfall is 1,562.67mm per year.
- **Wind-wave Climate**. The waters of Nusa Penida include the Alur Laut Kepulauan Indonesia (ALKI – Indonesian Archipelago Sea Channel). In 2014, The condition is influenced by Indonesian Throughflow (ITF) currents from the

Pacific Ocean to the Indian Ocean. This condition affects the distribution of plankton, fish abundance, and the structure of coral reef communities. The waters of Nusa Penida are known to have quite strong currents. The water temperature in Nusa Penida ranges from 25^0C-28^0C.

- **Geography and Geology**. Nusa Penida District is part of Klungkung Regency, Bali Province. This district has an area about 20,300 hectares consisting of 3 main islands, namely Nusa Penida, Nusa Ceningan and Nusa Lembongan. Nusa Penida District has a coastline about 70 km out of 90 km owned by Klungkung Regency. The boundary coordinates of the MPA Nusa Penida are:
  - Batu Nunggul : $115^0$34'37.10" East longitude – $8^0$39'14.43" South latitude.
  - Batu Abah : $115^0$39'41.36" East longitude – $8^0$46'25.54" South latitude.
  - Sekartaji : $115^0$35'32.37" East longitude – $8^0$51'39.59" South latitude.
  - Sakti : $115^0$26'6.53" East longitude – $8^0$45'46.33" South latitude.
  - Lembongan : $115^0$24'13.28" East longitude – $8^0$41'5.82" South latitude.
  - Jungut Batu : $115^0$26'42.52" East longitude – $8^0$38'34.63" South latitude.
- **Topography**, landscape of Nusa Penida is sloping up to hills along the coastal villages in northern area of the island with ground slope is 0-3% from the height 0-268m above the sea level; meanwhile iin the southern area, the ground slope is 3-8%, and in the Nusa Ceningan Island where the mangrove tracking and bird tower will be built, the ground slope is 8 – 30%.
- **Air Quality**. Air Quality Index (AQI) Nusa Penida, Klungkung is 38 (good), pollutant in PM2,5 is 18$\mu g/m^3$, and PM10 is 11 $\mu g/m^3$, and humidity is 79% (IQAir, 2022)
- **Water quality**. The salinity level in Nusa Penida is 32.75psu – 34 psu (COREMAP-CTI – GP7, 2022). Source of environmental water from spring, ground water and has marine waters with biodiversity. The environmental water quality is influential on environmental sustainability and tourism in Nusa Penida Tourism Area. Influential parameter the index of sea water pollution, well water and spring water in Nusa Penida are turbidity parameter, free ammonia (NH_3-N) dissolved residue (TDS) and total coliform, respectively.
- **Transportation.** The MPA Nusa Penida is located in the Nusa Penida district and is relatively easy to reach. This archipelago district is located no more than 15 nautical miles from the main island of Bali. MPA Nusa Penida can be reached from 5 places, namely Sanur, Benoa Harbor, Kusamba, Tanjung Benoa and Padang Bai. There are many transportation facilities including public transportation that take passengers to and from the Nusa Penida every day in the morning, afternoon and evening. MPA Nusa Penida can be reached in about 40 minutes by using a double engine speedboat of 85 PK. There is a ferry port in Nusa Penida where the Roro ship from Padang Bai (Karangasem) rests.

Ecological Resources

Figure 1 Distribution of Marine and Fisheries resources in the Nusa Penida MPA



Source: Coral Triangle Center, 2021

- The figure 1 above is Marine Protected Area (MPA) Nusa Penida refer to Directorate General Decree No, 24 Year 2014 and Regulation of Head of District of Klungkung Regency No. 12 Year 2010.
- In period June – December 2021, CTC and TIA as the implementer of initiated the coral reef and mangrove rehabilitation program by holding coordination meetings with the local government from the provincial to district levels which aimed to gather various inputs, strategic issues and directions from relevant stakeholders. Figure 1. The Map of distribution of marine and fishery resources in the Nusa Penida MPA.
- Marine Biodiversity. Nusa Penida district which has three main islands, namely Nusa Penida, Nusa Ceningan and Nusa Lembongan, are surrounded by fringing reefs with an area of 1.600 hectares.
- CTC started identifying coral reef rehabilitation sites by conducting a coral health survey at the Nusa Penida MPA on August 9-15, 021. There was monitoring of coral reef health at 14 survey points representing each zoning and the division of observers.
- The survey results indicate 43% of the average live hard coral cover in the Nusa Penida MPA or moderate category. This value increased by 9.83% compared to the average value of live hard coral cover in 2020. As additional information, CTC has been monitoring coral health annually at the Nusa Penida MPA since 2010.
- CTC started identifying the location of mangrove rehabilitation by carrying out a baseline survey on 5-9 July 2021, on two main islands which become the habitat for mangrove forests in the Nusa Penida MPA, namely on Nusa Ceningan Island and Nusa Lembongan Island. Based on satellite data, the total mangrove area reaches 217.5 ha on Lembongan Island and 9.5 ha on Ceningan Island. The

widest habitat of natural (not planted) mangroves is in Jungut Batu Village.

- Data were collected in 21 plots spread over the Nusa Ceningan and Nusa Lembongan which is divided into two different administrative areas, namely Lembongan Village and Jungut Batu Village. Although the mangrove forest in Nusa Ceningan is not as wide as in Nusa Lembongan, we collected data there to see the general condition and profile of its mangrove forest which is a potential location for the mangrove track and bird watching towers.
- Domestic waste also (plastic baskets, mineral bottles, sacks, ropes used for seaweed cultivation, etc.) threatens to damage mangroves in Nusa Lembongan and Nusa Ceningan. But it has been still relatively small, seaweed fishermen assisted by this project have been given an understanding through socialization of the dangers of plastic waste and domestic waste for ecosystems in the sea and fishermen have also been advised to bring back items that have the potential to become waste in seaweed cultivation activities back to the mainland so as not to pollute the mangrove ecosystem. Another potential cause of mangrove damage tends to come mostly from land rather than the sea. These causes include changes in land-use patterns for other purposes, especially for mangrove areas close to roads, such as tourism facilities and houses built by the private sector and the government. The survey team also collected data for the mangrove canopy analysis using *hemispherical photography* method which developed by LIPI. The method used in this research is descriptive. According to Nazir (2005), descriptive research is research that aims to describe a situation in a certain area or conditions in the present. Data were collected through plot sampling (Mueller-Dumbois and Ellenberg, 1974) and determination of plot locations was carried out by purposive sampling method. Overall, the method of collecting mangrove data in the study refers to the Guidebook for Monitoring Mangrove Community Structure in Indonesia-LIPI (Dharmawan et al. 2020). Based on the analysis, the mangroves in Nusa Ceningan have the lowest average canopy cover value of 73.6% which is in the medium category. Meanwhile, the mangroves in Nusa Lembongan overlooking the strait have a higher average value of 78.3% and are in a good category. The average value of canopy cover in the mangrove forest of Jungut Batu Village has the highest value among other observation points, which is 80.1% and is in a good category as shown in the table below. Based on the survey, field observations and discussions with the community during a baseline survey, massive damage to mangrove forests was only found on Nusa Ceningan Island where the Klungkung Regency Government converted the forest into a port and pond construction site. While in other locations, such as in Lembongan and Jungut Batu villages, most of the damage to mangroves occurred due to land conversion for roads, plantations, salt ponds, and public facilities (garbage disposal sites) but still on a small scale. We identified mangrove rehabilitation sites in general based on the analysis result of the mangrove canopy where the location with an average coverage of 64.2% in plots A1, A2, and A3 located in Ceningan was the main target locations for rehabilitation. In addition, others are in Lembongan at the survey point code C1 with an average cover value of 56.7% and in Jungut Batu at the survey point code G1 with 69.5% coverage. Details and a summary of the potential locations for mangrove rehabilitation are in the following table below:

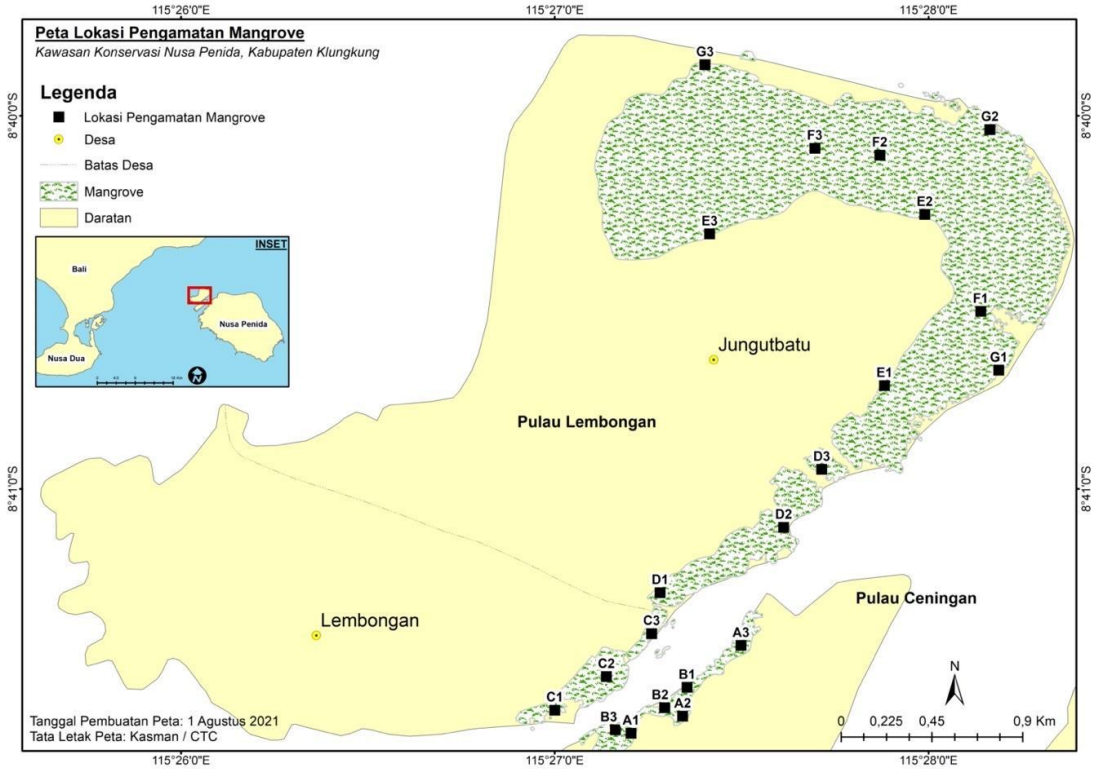
Table 11 Survey location and mangrove species/genus to plant

No.	Survey Point Codes	Locations	Mangrove Species/Genus to Plant
1	A1, A2, A3	Ceningan	*Rhizophora, Sonneratia,*
2	C1	Lembongan	*Rhizophora, Xylocarpus, Calophyllum inophyllum, Avicennia lanata,*
3	G1	Jungut Batu	*Xylocarpus, Calophyllum inophyllum, Avicennia lanata,*

Source: Coral Triangle Center (CTC), 2021

- We will carry out species selection in the in-situ nursery process for several species found in Lembongan and Ceningan. As for species enrichment, we will try to bring in seeds from several species which according to previous research were found in Nusa Lembongan and Nusa Ceningan but we did not find during the survey in July 2021.

Figure 2 Location for mangrove planting in Nusa Lembongan - Nusa Ceningan



Source: Coral Triangle Centre (CTC), 2021

- In the waters of Nusa Penida there are 567 species of fish. Groups of fish found in the waters of Nusa Penida are reef fish, pelagic fish and bottom fish. Marine mammals such as whales and dolphins also sometimes cross the ocean of Nusa Penida, even in the west of Nusa Lembongan, dugongs appear several times to the surface. In the ocean of Nusa Penida, there are at least 2 types of turtles, namely the green turtle and the Hawksbill turtle. Several beaches in Nusa Lembongan and Nusa Ceningan are suspected of being the location for turtles to lay eggs.
- Deep sea fish such as Mola-Mola (sunfish) appear in the waters of Nusa Penida around July-September every year. Several locations in Nusa Penida ocean are cleaning stations for Mola fish, such as Crystal Bay (Sick Village), Ceningan wall (Lembongan Village), Batu Abah (Pejukutan Village), and Sental (Ped Village). These locations become favorite dive sites when Mola-Mola arrives. The waters of Nusa Penida are also home to manta rays. This fish is often found in groups of 3-4 fishes Unlike sunfish, which has a season of emergence, manta rays can be found all year round in the waters of Nusa Penida. The location where manta rays are usually found is known as Manta Point. This dive site is located around Batu Lumbung (Batu Kandik Village).
- **Climate Change**. Coral reef are fragile ecosystem and highly vulnerable to overfishing, destructive fishing practices, pollution, and natural factors. Climate chage is one of the natural factors that impacted coral reefs. Bali is one of the

popular area in Indonesia that part of Coral Triangle Initiative. The study in Nusa Penida confirms the difference about level of coral reefs destruction in time of observation. The data was analyzed by LANDSAT 7+ and LANDSAT 8 OLI.

- In December 2021, Nusa Penida, Bali just hit by flood due to the heavy rain. The flood destroyed various infrastructure in the tourism area in crystal bay, Village of Suana, Village of Ped which are the area of the Project COREMAP CTI in Nusa Penida.

Social

- **Social Economic Resources**. In Nusa Penida district, there are 5 high schools 10 junior high schools and 52 elementary schools. Currently, there is a distant class university which is being carried out at the Nusa Penida district office to accommodate Nusa Penida high school graduates to reach the undergraduate level of education.

- The main livelihoods of the people in Nusa Penida are seaweed farming, marine tourism, fisheries and animal husbandry. Other livelihoods such as agriculture, trade, as well as the private sector and government. There are about 100 fishermen in Nusa Penida district. The villages with the highest number of fishermen are Batununggul and Suana. Fishing locations by fishermen are generally at a depth of 40 - 200 meters and the furthest distance is about 5 miles from the mainland, even to Lombok. The catch of fishermen in general is tuna (*Thunus albacarez)*, languan (Giant Trevally/Languan/*Caranx ignobilis),*, kokak/grouper (Serranidae), shark (*charcharhinus melanopterus*), skipjack (*Katsuwonus pelamis*)and others. The fishing area for export fish such as kokak is in the East of Nusa Penida and South of Nusa Penida, while the location for catching fish for own consumption such as tuna is in the North and West of Nusa Penida.

- The marine biodiversity of Nusa Penida has brought economic benefits and environmental services to Nusa Penida District, Klungkung Regency and Bali Province. Coral reefs, mangroves, manta rays, sunfish, sea turtles, dolphins, sharks and whales is an attractive attraction for marine tourism. There are more than 20 dive sites in the waters of Nusa Penida with several favorite dive sites such as Crystal Bay, Manta Point, Ceningan Wall, Blue Corner, SD-Sental, Mangrove-Sakenan, Gemat Bay, and Batu Abah. There are 3 major cruises in Nusa Penida, each of which has a pontoon such as Bali Hai, Bounty and Quick-Silver, which brings an average of 200 tourists per day (CTC, Resources use monitoring report, 2018). Other marine tourism in Nusa Penida are surfing, snorkeling, sailing, fishing, flying fish, Para-Sailing, kayaking and sea-walker. There are 6 dive base operators in Nusa Lembongan and Nusa Penida. It is estimated that around 200,000 tourists come to visit Nusa Penida every year. The peak number of visits to Nusa Penida (peak-season) is August - September, while the lowest month (low-season) is January - February.

- **Social Cultural Resources.** The majority of the people of Nusa Penida are Balinese Hindus. There is Muslim villages from 16 villages, namely Toyapakeh village. The Toyapakeh people used to have their ancestors from Java and Lombok. By the 2020 the total population in Nusa Penida is 57.370 people. (Nusa Penda dalam Angka, 2021). The population is around 50,000 people who inhabit 3 islands in the Nusa Penida sub-district.

- There are several large temples in Nusa Penida such as Batu Medau Temple and Giri Putri Temple. In addition, there is a central temple on the island of Bali located in Nusa Penida, namely the Sad-Khayangan Ped temple. The people of Nusa Penida carry out *Nyepi Segara* (traditional custom event) every year to

respect the sea and give the sea a chance to rest. *Nyepi Segara* is also a form of implementing the teachings of *Tri Hita Karana* (god), especially maintaining a balance between humans and nature.

- **Customary** rules in Nusa Penida are set forth in awig-awig (customary law) resulting from a mutual agreement (pararem). In Lembongan Village, there are awig-awig related to the coast and the sea such as the prohibition of mangrove logging and sea sand extraction.
- **Community Health**. Health Center (Puskesmas) or sub-health centers (Pustu) are very vital health facilities so that these facilities are spread evenly in each village as well as Posyandu. The number of puskesmas/pustu is one facility in each village, while the number of posyandu varies the most in Sakti Village and Ped Village as many as 10 posyandu.
- **Community Security**. No number of security breaches were reported to the police in 2021. However, the cases of COVID-19 in Bali and especially Nusa Penida led to various control measures including prevention.
- **Gender Context**. Based on the BPS, 2020, the population of subdistrict Nusa Penida district in 2020 is estimated to be around 57,370 people, consisting of a male population of 29,036 people and a female population of 28,334 people.

Gili Balu

Physical Environment

- **Climate**. Climate condition in Gili Balu is dry season in early May to late of October and rainy season in October to April and the average precipitation is 227 mm per year.
- **Geography and Geology**. Gili Balu District is part of West Sumbawa Regency, West Nusa Tenggara, which consists of eight small inhabitant islands, are: Kalong island, Namo island, Kenawa Island, Ular island, Paserang island, kambing island, Belang island, and Mandiki island. Geographicly, the position of the MPA Gili Balu is 8^0 28' 45,85" – 8^0 34' 23.35" SL and 116^0 45' 07,18" – 116^0 53' 27,35" WL.
- **Water quality**. Water quality parameters in Gili Balu include salinity parameters ranging from 33.19 psu - 33.77 psu. Dissolve oxygen parameters on Gili Balu ranged from 6.21 mg/l – 6.95 mg/l. The pH parameter in Gili Balu waters ranges from 7.6 to 7.9, the brightness of Gili Balu waters ranges from 2m to 17m. The lowest brightness is at the station near coastal area, especially near Paserang Island due to the shallow depth of the water. Temperature parameters in Gili Balu waters ranged from 27.3°C – 29°C with an average temperature of 28.4^0C, tended to be the same and did not vary much between data collection stations.
- **Temperature and wave**. In the Gili Balu region the sea surface temperature shows changes that fluctuate seasonally with a temperature range of 27°C – 30.5°C with a pattern in the west and east monsoons. The Gili Balu region from January 2010 to December 2021 shows current velocities ranging from -0.1 m/s – 0.1 m/s and varies with time. In the Gili Balu area, the concentration of chlorophyll fluctuates in the range of 0.30 mg/m3 – 1.20 mg/m3 with variations in the West Season, Transitional Season I, East Season, and Transitional Season II. Based on the calculation, it is found that the tidal harmonic constants on Gili Balu, the tidal type on the mixed

Gili Balu tends to be double. This means that in one day there are two high tides and two low tides with different amplitudes.

- **The location** for infrastructure development in Gili Balu is in Kenawa 1, 2, and 3 for mooring buoys, two surveillance tower will be built in P Paserang and Namo Island. while the ecotourism center is in the Poto Tano Port complex, West Sumbawa Regency government.

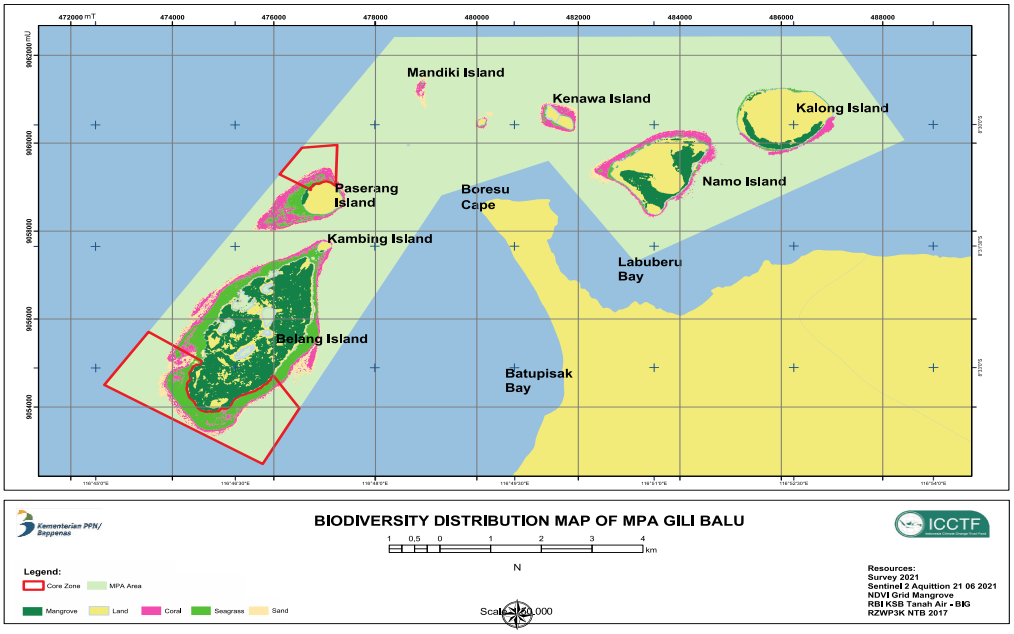
Figure 3 Tourism Information center building location

Source: COREMAP CTI, CBA, 2021

- **Transportation**. Access from Port Poto Tano, to the eight small island in Gili Balu is wooden motor-boat. From one island to other island can be reached in about 15 minutes or 30 minutes to the outer island, such as Belang Island. There is a ferry port in Poto Tano from Port of Kayangan in East Lombok.

Ecological Resources

Figure 3 Map Biodiversity of MPA Gili Balu



Source: COREMAP CTI, CBA, 2021

- **Ecological resources** In period June – December 2021 PT. CBA and PT. Sucofindo conduct mangrove rehabilitation survey and carrying capacity assessment in Gili Balu. The result of the survey and assessment, as follow:
- **Mooring buoy.** The location for establishment mooring buoy is Kenawa Island wa 1, Kenawa 2 and

Source: COREMAP CTI. CBA, 2021

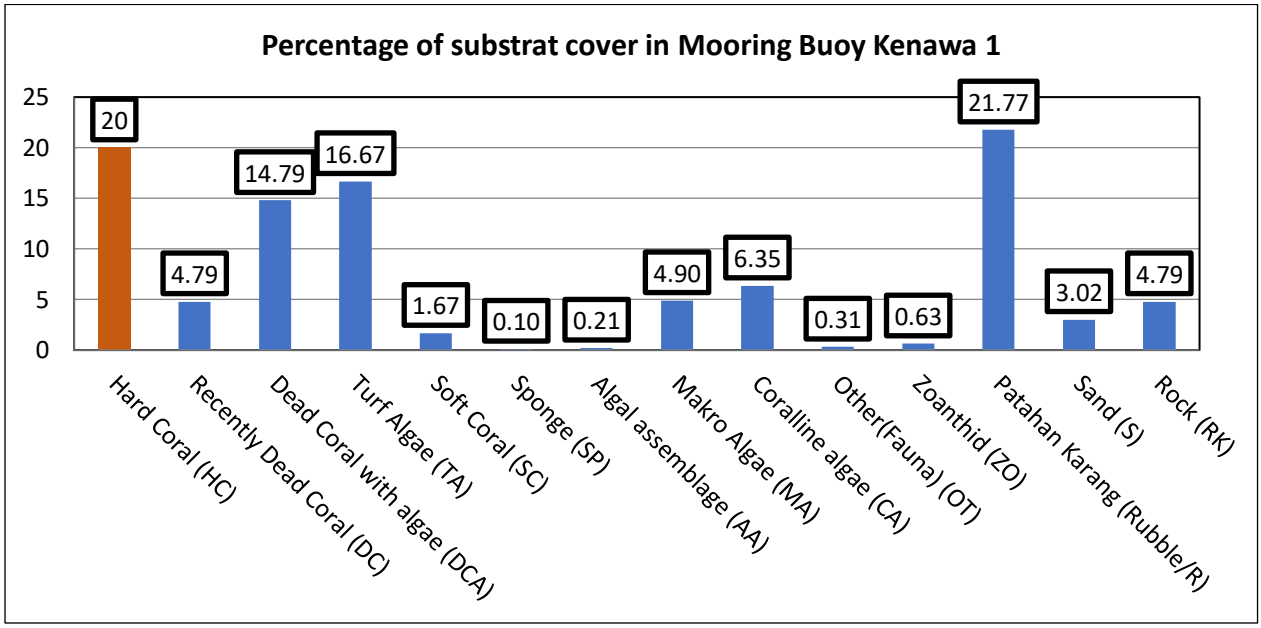
Kenawa 1

Table 12 Summary of baseline in mooring buoy Kenawa 1

No	Baseline	Remark
1	Substrat	sandy, rubble (coral fracture), coral
2	Coral reef covers	20%
3	Non-coral substrat	80%, dominated with Rubble 21,77%
4	Number of reef fish	44 type with density of 3,028 ind/m^2
5	The water current is quite calm	0.1-0.25 m/s
6	Depth	15 meter
7	Coordinate	S: 8°30'02.5" E: 116°49'53.8"

Source: COREMAP CTI, CBA, 2021

Figure 4 Percentage of substrat cover in mooring buoy Kenawa 1



Source: COREMAP CTI, CBA, 2021

Figure 5 Coral reef cover in Kenawa 1

Source: COREMAP CTI, CBA, 2021

- The coral reef cover or hard coral (HC) around the mooring buoys in Kenawa 1 has a cover of 20% while the other 80% is covered by non-coral substrate. Coral rubble (R) remains are the most dominant type of substrate around Kenawa 1.

Biodiversity of Reef Fish

- There are 44 species of reef fish at the Kenawa 1 mooring buoy, which had a total density of 3.28 ind/m2 with several species with the highest density are Pomacentrus moluccensis, Chromis ternatensis, and Pomacentrus coelestis.

Table 13 Reef Fish in Kenawa 1

No	Species	Familia	Functional Group	Density (ind/m²)	Status IUCN Red List
1	*Parapercis millepunctata*	Pinguipedidae	Cryptic	0.004	Not evaluated
2	*Pomacentrus coelestis*	Pomacentridae	Major	0.268	Not evaluated
3	*Halichoeres hortulanus*	Labridae	Major	0.004	LC (Least Concern)

No	Species	Familia	Functional Group	Density (ind/m²)	Status IUCN Red List
4	*Dascyllus reticulatus*	Pomacentridae	Major	0.008	Not evaluated
5	*Amphiprion clarkii*	Pomacentridae	Major	0.02	Not evaluated
6	*Dascyllus aruanus*	Pomacentridae	Major	0.008	Not evaluated
7	*Thalassoma hardwicke*	Labridae	Major	0.024	LC (Least Concern)
8	*Ctenochaetus striatus*	Acanthuridae	Herbivore	0.084	LC (Least Concern)
9	*Scarus dimidiatus*	Scaridae	Herbivore	0.024	LC (Least Concern)
10	*Chlorurus bleekeri*	Scaridae	Herbivore	0.02	LC (Least Concern)
11	*Pomacentrus moluccensis*	Pomacentridae	Major	0.656	Not evaluated
12	*Chlorurus sordidus*	Scaridae	Herbivore	0.008	LC (Least Concern)
13	*Scarus flavipectoralis*	Scaridae	Herbivore	0.012	LC (Least Concern)
14	*Acanthurus nigrofuscus*	Acanthuridae	Herbivore	0.008	LC (Least Concern)
15	*Halichoeres hortulanus*	Labridae	Major	0.012	LC (Least Concern)
16	*Thalassoma lunare*	Labridae	Major	0.008	LC (Least Concern)
17	*Thalassoma jensenii*	Labridae	Major	0.012	LC (Least Concern)
18	*Chaetodon kleinii*	Chaetodontidae	Coralivore	0.056	LC (Least Concern)
19	*Dascyllus melanurus*	Pomacentridae	Major	0.004	Not evaluated
20	*Pomacentrus tripunctatus*	Pomacentridae	Major	0.028	Not evaluated
21	*Scarus psittacus*	Scaridae	Herbivore	0.004	LC (Least Concern)
22	*Labracinus cyclophthalmus*	Pseudochromidae	Major	0.012	Not evaluated
23	*Zebrasoma scopas*	Acanthuridae	Herbivore	0.004	LC (Least Concern)
24	*Amphiprion melanopus*	Pomacentridae	Major	0.008	LC (Least Concern)
25	*Cirrhilabrus cyanopleura*	Labridae	Major	0.168	DD (Data Deficient)
26	*Neoglyphidodon crossi*	Pomacentridae	Major	0.012	Not evaluated
27	*Scarus pyrrhurus*	Scaridae	Herbivore	0.004	LC (Least Concern)
28	*Scolopsis lineata*	Nemipteridae	Major	0.04	LC (Least Concern)
29	*Chlorurus bowersi*	Scaridae	Herbivore	0.008	NT (Near Threatened)
30	*Hemigymnus melapterus*	Labridae	Major	0.012	LC (Least Concern)
31	*Choerodon anchorago*	Labridae	Major	0.004	LC (Least Concern)
32	*Amphiprion sandaracinos*	Pomacentridae	Major	0.008	LC (Least Concern)
33	*Dascyllus trimaculatus*	Pomacentridae	Major	0.02	Not evaluated
20	*Synodus ulae*	Synodontidae	Cryptic	0.004	LC (Least Concern)
21	*Ablyglyphidodon leucogaster*	Pomacentridae	Major	0.012	LC (Least Concern)
22	*Chantherhines pardalis*	Balistidae	Major	0.004	LC (Least Concern)
23	*Centropyge vrolikii*	Pomacanthidae	Major	0.012	LC (Least Concern)

No	Species	Familia	Functional Group	Density (ind/m²)	Status IUCN Red List
24	*Chaetodontoplus mesoleucus*	Pomacanthidae	Major	0.008	LC (Least Concern)
25	*Acanthochromis polyacanthus*	Pomacentridae	Major	0.024	LC (Least Concern)
26	*Pomacentrus smithi*	Pomacentridae	Major	0.14	LC (Least Concern)
27	*Chrysiptera rollandi*	Pomacentridae	Major	0.008	Not evaluated
28	*Chromis weber*	Pomacentridae	Major	0.004	Not evaluated
29	*Chaetodon speculum*	Chaetodontidae	Coralivore	0.004	LC (Least Concern)
30	*Canthigaster valentini*	Tetraodontidae	Major	0.008	LC (Least Concern)
31	*Acanthurus auranticavus*	Acanthuridae	Herbivore	0.02	LC (Least Concern)
32	*Chromis ternatensis*	Pomacentridae	Major	0.64	Not evaluated
33	*Abudefduf vaigiensis*	Pomacentridae	Major	0.104	LC (Least Concern)
34	*Myripristis hexagona*	Holocentridae	Major	0.02	LC (Least Concern)
35	*Chaetodon baronessa*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
36	*Chromis viridis*	Pomacentridae	Major	0.148	Not evaluated
37	*Plectroglyphidodon lacrymatus*	Pomacentridae	Major	0.028	Not evaluated
38	*Scolopsis aurata*	Nemipteridae	Major	0.012	LC (Least Concern)
39	*Pseudanthias huchtii*	Serranidae	Major	0.008	LC (Least Concern)
40	*Chaetodon lunulatus*	Chaetodontidae	Coralivore	0.02	LC (Least Concern)
41	*Naso hexacanthus*	Acanthuridae	Herbivore	0.16	LC (Least Concern)
42	*Naso thynnoides*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
43	*Naso brevirostris*	Acanthuridae	Herbivore	0.04	LC (Least Concern)
44	*Plectorhinchus vittatus*	Haemulidae	Carnivore	0.004	LC (Least Concern)
Total				**3.028**	

Source: COREMAP CTI, CBA, 2021

Kenawa 2

Table 14 Summary of Mooring buoy in Kenawa 2

No	Baseline	Remark
1	Substrat	sandy, rubble (coral fracture), coral
2	Coral reef covers	18,3%
3	Non-coral substrat	81,7%, dominated with Rubble 31,1%
4	Number of reef fish	60 types with density of 2,356 Ind/m²
5	The water current is quite calm	0.2-0.3 m/s
6	Depth	15-20 meter
7	Coordinate	S: 8°30'02.5" E: 116°49'53.8"

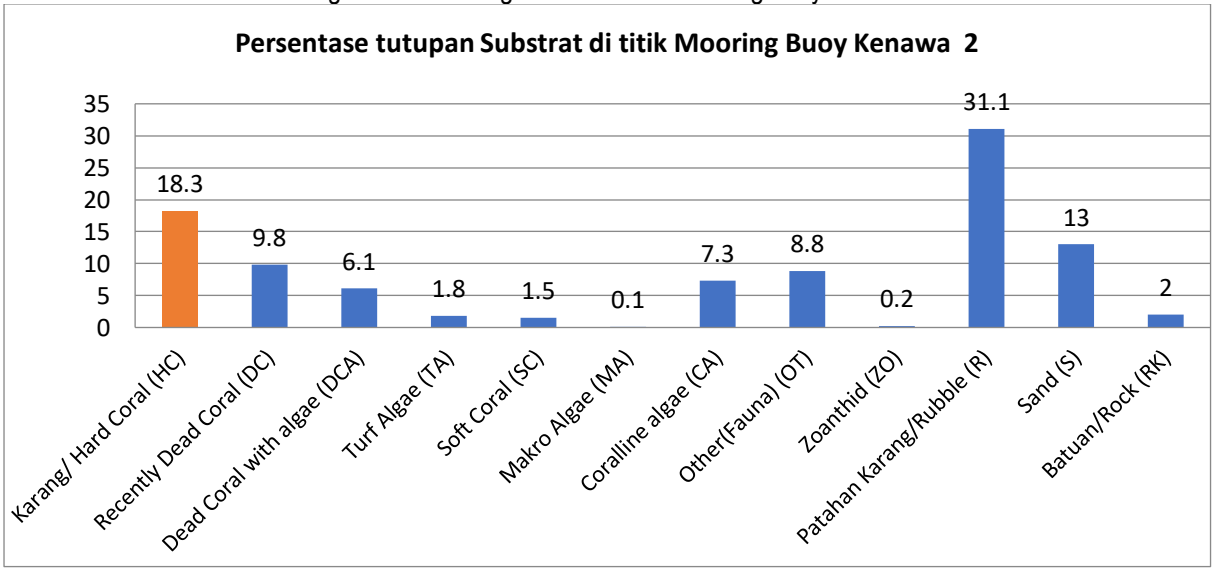
Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

- The coral reef cover or hard coral (HC) around the mooring buoys in Kenawa 2 has a cover of 18.3% while the other 91.7% is covered by non-coral substrate.

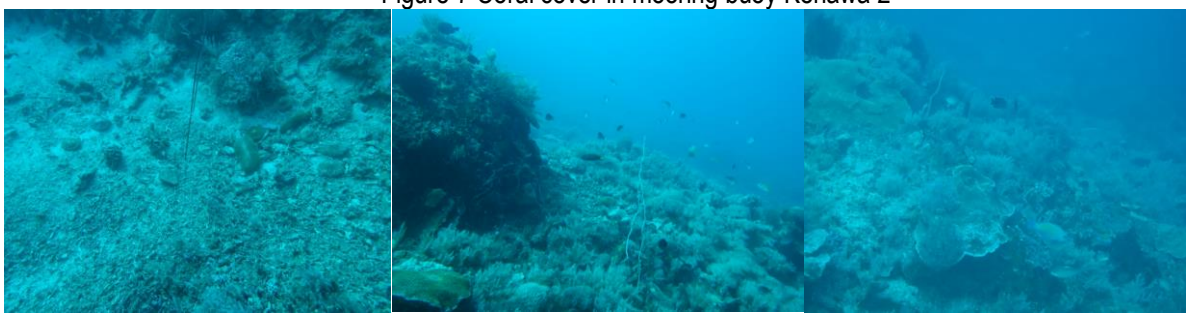
Coral rubble (R) remains are the most dominant type of substrate around Kenawa 2, with the percentage of 31.1%

Figure 6 Percentage of substrat in mooring buoy in Kenawa-2



Source: COREMAP CTI, CBA, 2021

Figure 7 Coral cover in mooring buoy Kenawa 2



Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

- There are 60 species of reef fish at the Kenawa 2 mooring buoy, which had a total density of 2.356 ind/m2 with several species with the highest density are Naso brevirostris, Scolopsis ciliate, Lutjanus biguttatus, and Pomacentrus brachialis.

Table 15 Reef Fish in Kenawa 2

No	Species	Familia	Functional Group	Density /m²	Status IUCN Red List
1	*Abudefduf vaigiensis*	Pomacentridae	Major	0.028	LC (Least Concern)
2	*Scarus flavipectoralis*	Scaridae	Herbivore	0.04	LC (Least Concern)
3	*Chaetodon auriga*	Chaetodontidae	Coralivore	0.004	LC (Least Concern)
4	*Choerodon anchorago*	Labridae	Major	0.016	LC (Least Concern)
5	*Pygoplites diacanthus*	Pomacanthidae	Major	0.024	LC (Least Concern)
6	*Chromis ternatensis*	Pomacentridae	Major	0.16	Not evaluated
7	*Ctenochaetus striatus*	Acanthuridae	Herbivore	0.028	LC (Least Concern)

No	Species	Familia	Functional Group	Density /m²	Status IUCN Red List
8	*Amphiprion ocellaris*	Pomacentridae	Major	0.012	Not evaluated
9	*Ablyglyphidodon leucogaster*	Pomacentridae	Major	0.044	LC (Least Concern)
10	*Ablyglyphidodon curacao*	Pomacentridae	Major	0.036	LC (Least Concern)
11	*Dascyllus trimaculatus*	Pomacentridae	Major	0.004	Not evaluated
12	*Scolopsis bilineatus*	Nemipteridae	Major	0.004	LC (Least Concern)
13	*Heniochus varius*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
14	*Parupeneus macronema*	Mullidae	Major	0.02	LC (Least Concern)
15	*Parupeneus multifasciatus*	Mullidae	Major	0.036	LC (Least Concern)
16	*Centropyge tibicen*	Pomacanthidae	Major	0.004	LC (Least Concern)
17	*Chaetodon melannotus*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
18	*Hemigymnus fasciatus*	Labridae	Major	0.016	LC (Least Concern)
19	*Naso brevirostris*	Acanthuridae	Herbivore	**0.16**	LC (Least Concern)
20	*Naso hexacanthus*	Acanthuridae	Herbivore	0.04	LC (Least Concern)
21	*Naso annulatus*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
22	*Naso caeruleacaudus*	Acanthuridae	Herbivore	0.02	LC (Least Concern)
23	*Pomacentrus amboinensis*	Pomacentridae	Major	0.052	Not evaluated
24	*Ctenochaetus binotatus*	Acanthuridae	Herbivore	0.004	LC (Least Concern)
25	*Cirrhilabrus cyanopleura*	Labridae	Major	0.64	DD (Data Deficient)
26	*Parapercis sp.*	Pinguipedidae	Cryptic	0.004	Not evaluated
27	*Aulostomus chinensis*	Aulostomidae	Major	0.008	LC (Least Concern)
28	*Scolopsis affinis*	Nemipteridae	Major	0.016	LC (Least Concern)
29	*Scolopsis ciliata*	Nemipteridae	Major	**0.088**	LC (Least Concern)
30	*Pomacentrus brachialis*	Pomacentridae	Major	0.084	Not evaluated
31	*Centropyge vrolikii*	Pomacanthidae	Major	0.016	LC (Least Concern)
32	*Chaetodon kleinii*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
33	*Amphiprion sabae*	Pomacentridae	Major	0.004	Not evaluated
34	*Plectorhinchus flavomaculatus*	Haemulidae	Carnivore	0.036	Not evaluated
35	*Siganus guttatus*	Siganidae	Herbivore	0.052	LC (Least Concern)
36	*Chlorurus sordidus*	Scaridae	Herbivore	0.016	LC (Least Concern)
37	*Caesio cuning*	Caesionidae	Major	0.032	LC (Least Concern)
38	*Caesio caerulaurus*	Caesionidae	Pelagic	0.012	LC (Least Concern)
39	*Amphiprion clarkii*	Pomacentridae	Major	0.012	Not evaluated
40	*Pseudocoris heteroptera*	Labridae	Major	0.012	LC (Least Concern)

No	Species	Familia	Functional Group	Density /m²	Status IUCN Red List
41	*Halichoeres prosopeion*	Labridae	Major	0.008	LC (Least Concern)
42	*Halichoeres solorensis*	Labridae	Major	0.004	LC (Least Concern)
43	*Thalassoma lunare*	Labridae	Major	0.056	LC (Least Concern)
44	*Cheilinus celebicus*	Labridae	Major	0.004	LC (Least Concern)
45	*Acanthurus nigrofuscus*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
46	*Parupeneus barberinus*	Mullidae	Major	0.016	LC (Least Concern)
47	*Lutjanus biguttatus*	Lutjanidae	Carnivore	0.084	LC (Least Concern)
48	*Lutjanus boutton*	Lutjanidae	Carnivore	0.004	LC (Least Concern)
49	*Naso unicornis*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
50	*Chromis atripectoralis*	Pomacentridae	Major	0.048	Not evaluated
51	*Scarus dimidiatus*	Scaridae	Herbivore	0.048	LC (Least Concern)
52	*Pterocaesio digramma*	Caesionidae	Pelagic	0.024	LC (Least Concern)
53	*Pterocaesio tile*	Caesionidae	Pelagic	0.068	LC (Least Concern)
54	*Halichoeres hortulanus*	Labridae	Major	0.016	LC (Least Concern)
55	*Pomacentrus moluccensis*	Pomacentridae	Major	0.048	Not evaluated
56	*Zanclus cornutus*	Zanclidae	Major	0.016	LC (Least Concern)
57	*Parupeneus bifasciatus*	Mullidae	Major	0.02	LC (Least Concern)
58	*Upeneus tragula*	Mullidae	Major	0.028	LC (Least Concern)
59	*Taeniura lymma*	Dasyatidae	Carnivore	0.004	LC (Least Concern)
60	*Carcharhinus melanopterus*	Carcharhinidae	Carnivore	0.004	VU (Vulnerable)
Total				**2.356**	

Source: COREMAP CTI, CBA, 2021

Kenawa 3

Coral Cover and Coral Fish Types

Table 16 Summary of baseline in mooring buoy in Kenawa 3

No	Baseline	Remark
1	Substrat	Sandy
2	Coral reef covers	0 %
3	Non-coral substrat	100% (sand)
4	Number of reef fish	-
5	Water current speed	0,3 – 0,4 m/s (strong)
6	Depth	20 meter
7	Coordinate	S: 8°30'03.66" E: 116°50'9.46"

Source: COREMAP CTI, CBA, 2021

- Kenawa 3 point is location where mooring buoys that already exist. There is a mooring buoy which will then be added 1 mooring buoy to support ecotourism. This needs to be done because Kenawa 3 point is usually visited by tourist boats with a size of more than 30 GT. Substrate conditions at Kenawa 3 appear to be dominated by sandy substrate without any coral reefs.

Figure 8 Substrat condition and set of the mooring buoy at Kenawa 3

Source: COREMAP CTI, CBA, 2021

Kalong

Coral Cover and Coral Fish

Table 17 Summary of baseline in kalong Point

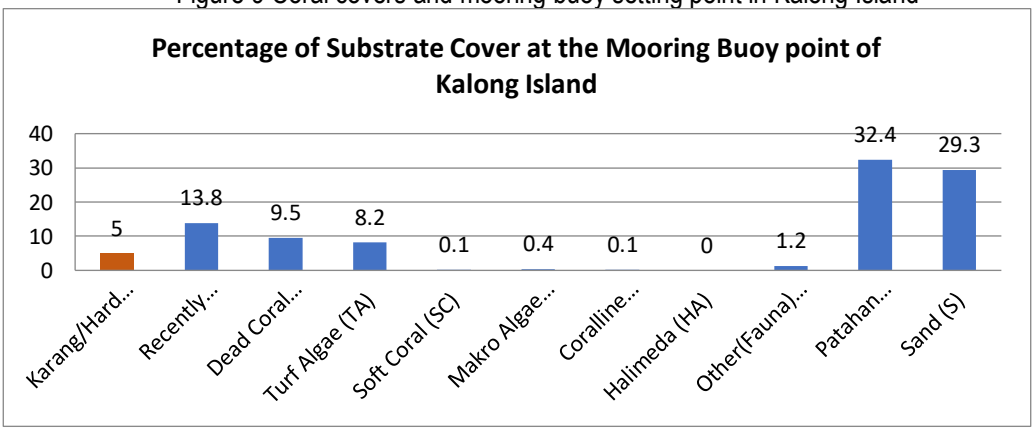
No	Baseline	Remark
1	Substrat	Dominated with rubble (coral fracture), coral
2	Coral reef covers	5%
3	Non-coral substrat	95% (coral fracture 32,4% dan sand 29,3%)
4	Number of reef fish	33 type with density of 0,944 Ind/m^2
5	water current speed	0.1-0.3 m/s
6	Depth	8 meter
7	Coordinate	S: 8°29'31.2" E: 116°52'32.8"

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

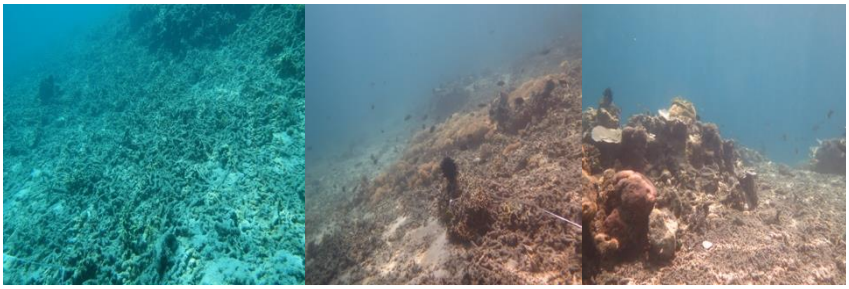
- The coral reef cover or hard coral (HC) around the mooring buoys in Kalong Island has a cover of 5% while the other 95% is covered by non-coral substrate. Coral rubble (R) remains are the most dominant type of substrate around Kalong Island, with the percentage of 32.4%

Figure 9 Coral covers and mooring buoy setting point in Kalong Island



Source: COREMAP CTI, CBA, 2021

Figure 10 Coral Reef in Kalaong Island



Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

- There are 33 species of reef fish at the Kalong Island mooring buoy, which had a total density of 0,944 ind/m2 with several species with the highest density are Amblyeleotris guttata, Cirrhilabrus sp., Lutjanus biguttatus, and Scarus rivulatus.

Table 18 Reef fish in Kalong Island

No	Species	Familia	Functional Group	Density ind/m2	Status IUCN Red List
1	*Cirrhilabrus sp.*	Labridae	Major	**0.148**	DD (Data Deficient)
2	*Scarus flavipectoralis*	Scaridae	Herbivore	0.056	LC (Least Concern)
3	*Labracinus cyclopthalmus*	Pseudochromidae	Major	0.032	Not evaluated
4	*Thalassoma lunare*	Labridae	Major	0.044	LC (Least Concern)
5	*Pomacentrus nigromarginatus*	Pomacentridae	Major	0.016	Not evaluated
6	*Scarus rivulatus*	Scaridae	Herbivore	**0.108**	LC (Least Concern)
7	*Zanclus cornutus*	Zanclidae	Major	0.004	LC (Least Concern)
8	*Canthigaster valentini*	Tetraodontidae	Major	0.004	LC (Least Concern)
9	*Pomacentrus amboinensis*	Pomacentridae	Major	0.084	Not evaluated
10	*Arothron manilensis*	Tetraodontidae	Major	0.004	LC (Least Concern)
11	*Parapercis xanthozona*	Pinguipedidae	Cryptic	0.008	LC (Least Concern)
12	*Parapercis sp. (var Yellow Tail)*	Pinguipedidae	Cryptic	0.004	Not evaluated
13	*Amblyeleotris guttata*	Gobiidae	Cryptic	0.004	LC (Least Concern)
14	*Pomacentrus coelestis*	Pomacentridae	Major	0.152	Not evaluated
15	*Halichoeres scapularis*	Labridae	Major	0.008	LC (Least Concern)
16	*Halichoeres zeylonichus*	Labridae	Major	0.016	LC (Least Concern)
17	*Pomacentrus moluccensis*	Pomacentridae	Major	0.016	Not evaluated
18	*Ctenochaetus striatus*	Acanthuridae	Herbivore	0.096	LC (Least Concern)
19	*Apogon chrysopomus*	Apogonidae	Major	0.012	Not evaluated
20	*Amphiprion clarkii*	Pomacentridae	Major	0.028	Not evaluated
21	*Centropyge eibli*	Pomacanthidae	Major	0.004	LC (Least Concern)
22	*Anampses geographicus*	Labridae	Major	0.004	LC (Least Concern)

No	Species	Familia	Functional Group	Density ind/m2	Status IUCN Red List
23	*Scolopsis bilineata*	Nemipteridae	Major	0.024	LC (Least Concern)
24	*Amphiprion sabae*	Pomacentridae	Major	0.004	Not evaluated
25	*Cantherhines dumerili*	Monacanthidae	Major	0.004	LC (Least Concern)
26	*Labracinus cmelanotaenia*	Pseudochromidae	Major	0.004	Not evaluated
27	*Labroides dimidiatus*	Labridae	Major	0.004	LC (Least Concern)
28	*Scolopsis margaritifer*	Nemipteridae	Major	0.004	LC (Least Concern)
29	*Choerodon anchorago*	Labridae	Major	0.004	LC (Least Concern)
30	*Parupeneus multifasciatus*	Mullidae	Major	0.012	LC (Least Concern)
31	*Lutjanus fuscescens*	Lutjanidae	Carnivore	0.012	Not evaluated
32	*Chrysiptera unimaculatus*	Pomacentridae	Major	0.012	LC (Least Concern)
33	*Pomacentrus milleri*	Pomacentridae	Major	0.008	LC (Least Concern)
Total				**0.944**	

Source: COREMAP CTI, CBA, 2021

Paserang

- The mooring buoy and surveillance post will be built in the Paserang Island. Refer to the survey that have been conducted, condition of coral reef and fish reef in the Paserang island as follow:

Coral Reef Cover and Coral Fish

Table 19 Summary of baseline in Paserang 1

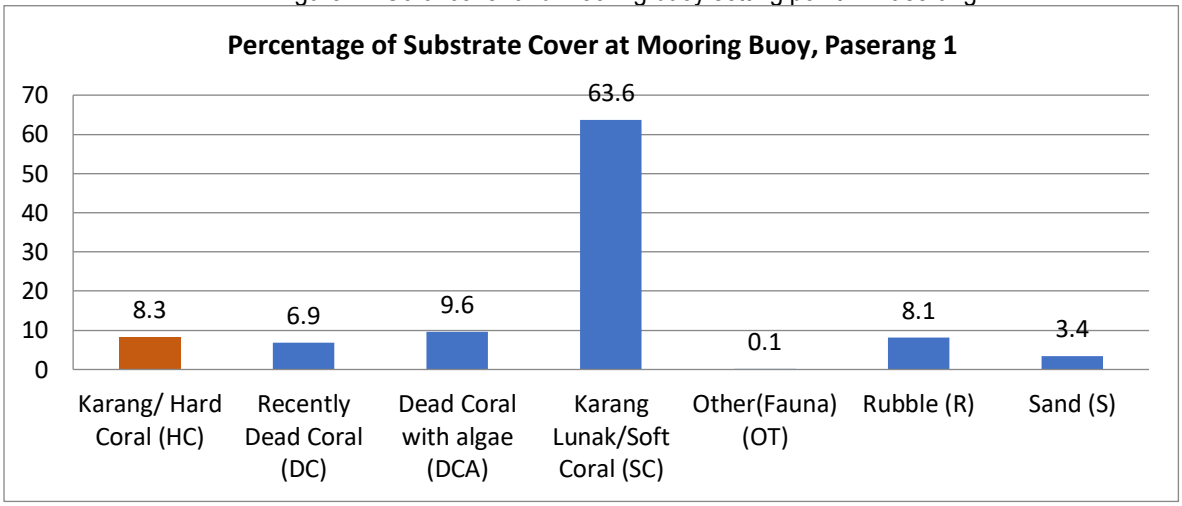
No	Baseline	Remark
1	Substrat	sandy, rubble (coral fracture), coral
2	Coral reef covers	8,3%
3	Non-coral substrat	91,7% (soft coral 63,6%)
4	Number of reef fish	54 types with density of 4,188 ind/m^2
5	Water current speed	0,15 m/s
6	Depth	10 m
7	Coordinate	S: 8°31'10.5" E: 116°47'21.9"

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

- The coral reef cover or hard coral (HC) around the mooring buoys in Paserang 1 has a cover of 8.3% while the other 91.7% is covered by non-coral substrate. Soft coral (SC) are the most dominant type of substrate around Paserang 1, with the percentage of 63.6%

Figure 11 Coral cover and mooring buoy setting point in Paserang 1



Source: COREMAP CTI, CBA, 2021

Figure 12 Coral condition in Paserang - 1

Source COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

- There are 54 species of reef fish at the Paserang 1 mooring buoy, which had a total density of 4.188 ind/m2 with several species with the highest density are *Abudefduf vaigiensis, Abudefduf sexfasciatus, Pterocaesio tile*, and *Pomacentrus moluccensis*.

Table 20 Reef fish in Paserang 1

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
1	*Zebrasoma scopas*	Acanthuridae	Herbivore	0.064	LC (Least Concern)
2	*Chaetodon lunulatus*	Chaetodontidae	Coralivore	0.012	LC (Least Concern)
3	*Chromis viridis*	Pomacentridae	Major	0.136	Not evaluated
4	*Epibulus insidiator*	Labridae	Major	0.016	LC (Least Concern)
5	*Abudefduf vaigiensis*	Pomacentridae	Major	0.64	LC (Least Concern)
6	*Abudefduf sexfasciatus*	Pomacentridae	Major	0.64	LC (Least Concern)
7	*Ablyglyphidodon leucogaster*	Pomacentridae	Major	0.036	LC (Least Concern)
8	*Centropyge vrolikii*	Pomacanthidae	Major	0.052	LC (Least Concern)
9	*Thalassoma lunare*	Labridae	Major	0.028	LC (Least Concern)

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
10	*Chaetodon kleinii*	Chaetodontidae	Coralivore	0.024	LC (Least Concern)
11	*Pterocaesio tile*	Caesionidae	Pelagic	0.64	LC (Least Concern)
12	*Ablyglyphidodon curacao*	Pomacentridae	Major	0.132	LC (Least Concern)
13	*Acanthochromis polyacanthus*	Pomacentridae	Major	0.036	LC (Least Concern)
14	*Apogon compressus*	Apogonidae	Major	0.02	LC (Least Concern)
15	*Naso brevirostris*	Acanthuridae	Herbivore	0.16	LC (Least Concern)
16	*Acanthurus blochii*	Acanthuridae	Herbivore	0.04	LC (Least Concern)
17	*Naso annulatus*	Acanthuridae	Herbivore	0.012	LC (Least Concern)
18	*Naso caeruleacaudus*	Acanthuridae	Herbivore	0.16	LC (Least Concern)
19	*Chrysiptera rollandi*	Pomacentridae	Major	0.008	Not evaluated
20	*Ctenochaetud binotatus*	Acanthuridae	Herbivore	0.028	LC (Least Concern)
21	*Pomacentrus amboinensis*	Pomacentridae	Major	0.044	Not evaluated
22	*Chromis ternatensis*	Pomacentridae	Major	0.076	Not evaluated
23	*Neoglyphidodon thoracotaeniatus*	Pomacentridae	Major	0.004	Not evaluated
24	*Parupeneus macronema*	Mullidae	Major	0.036	LC (Least Concern)
25	*Scarus spinus*	Scaridae	Herbivore	0.012	LC (Least Concern)
26	*Parupeneus multifasciatus*	Mullidae	Major	0.028	LC (Least Concern)
27	*Cheilinus unifasciatus*	Labridae	Major	0.004	LC (Least Concern)
28	*Scarus globiceps*	Scaridae	Herbivore	0.028	LC (Least Concern)
29	*Scarus chameleon*	Scaridae	Herbivore	0.04	LC (Least Concern)
30	*Scarus hypselopterus*	Scaridae	Herbivore	0.012	NT (Near Threatened)
31	*Scarus tricolor*	Scaridae	Herbivore	0.008	LC (Least Concern)
32	*Amphiprion sabae*	Pomacentridae	Major	0.016	Not evaluated
33	*Zanclus cornutus*	Zanclidae	Major	0.048	LC (Least Concern)
34	*Neoglyphidodon crossi*	Pomacentridae	Major	0.044	Not evaluated
35	*Chaetodon melannotus*	Chaetodontidae	Coralivore	0.024	LC (Least Concern)
36	*Amphiprion sandaracinos*	Pomacentridae	Major	0.004	LC (Least Concern)
37	*Chaerodon anchorago*	Labridae	Major	0.012	LC (Least Concern)
38	*Chaetodon rafflesii*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
39	*Hemigymnus melapterus*	Labridae	Major	0.008	LC (Least Concern)
40	*Scarus flavipectoralis*	Scaridae	Herbivore	0.032	LC (Least Concern)
41	*Chlorurus bleekeri*	Scaridae	Herbivore	0.028	LC (Least Concern)

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
42	*Cheilinus fasciatus*	Labridae	Major	0.004	LC (Least Concern)
43	*Amphiprion clarkii*	Pomacentridae	Major	0.008	Not evaluated
44	*Myripristis kuntee*	Holocentridae	Major	0.012	LC (Least Concern)
45	*Ctenochaetud striatus*	Acanthuridae	Herbivore	0.064	LC (Least Concern)
46	*Chlorurus gymnognathus*	Scaridae	Herbivore	0.004	LC (Least Concern)
47	*Siganus virgatus*	Siganidae	Herbivore	0.02	LC (Least Concern)
48	*Chaetodon ephippium*	Chaetodontidae	Coralivore	0.004	LC (Least Concern)
49	*Zebrasoma veliferum*	Acanthuridae	Herbivore	0.004	LC (Least Concern)
50	*Chlorurus sordidus*	Scaridae	Herbivore	0.004	LC (Least Concern)
51	*Chaetodon auriga*	Chaetodontidae	Coralivore	0.004	LC (Least Concern)
52	*Chlorurus gymnognathus*	Scaridae	Herbivore	0.004	LC (Least Concern)
53	*Pomacentrus moluccensis*	Pomacentridae	Major	**0.64**	Not evaluated
54	*Labracinus cyclopthalmus*	Pseudochromidae	Major	0.016	Not evaluated
Total				**4.188**	

Source: COREMAP CTI, CBA, 2021

Coral Cover and Coral Fish

Table 21 Summary of baseline in Paserang 2

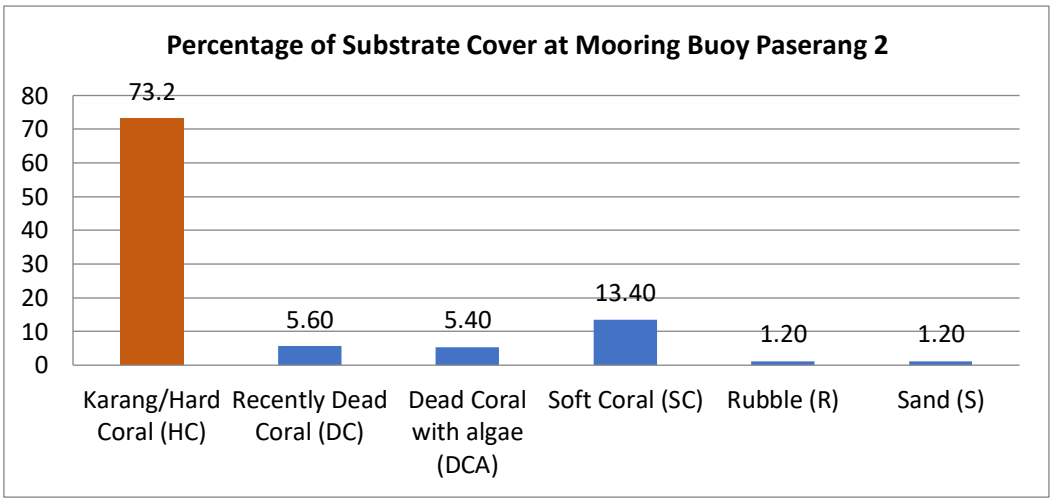
No	Baseline	Remark
1	Substrat	Soft coral, rubble (coral fracture), coral
2	Coral reef covers	73,2%
3	Non-coral substrat	26,8%
4	Number of reef fish	29 types with density of 5,04 ind/m^2
5	Water current speed	0,15 m/s
6	Depth	15 meter
7	Coordinate	S: 8°31'10.5" E: 116°47'21.9"

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

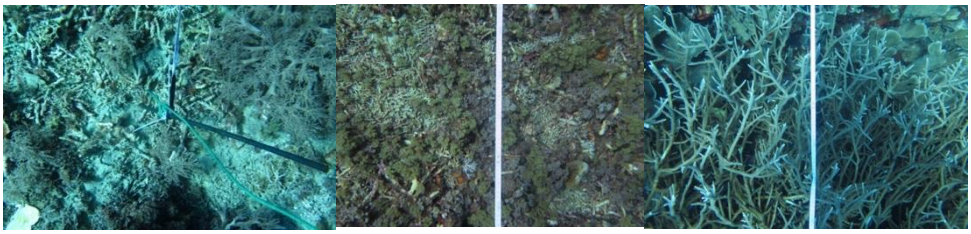
- The coral reef cover or hard coral (HC) around the mooring buoys in Paserang 2 has a cover of 73.2% while the other 26.8% is covered by non-coral substrate.

Figure 13 Coral Cover in Paserang 2



Source: COREMAP CTI, CBA, 2021

Figure 14 Coral Cover in Paserang 2



***S**ource: COREMAP CTI, CBA, 2021*

Biodiversity of Reef Fish

- There are 29 species of reef fish at the Paserang 2 mooring buoy, which had a total density of 5.044 ind/m2 with several species with the highest density are *Chromis ternatensis*, *Sphyraena flavicauda*, and *Chaetodon kleneii*.

Table 22 Reef fish in Paserang 2

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
1	*Ablyglyphidodon leucogaster*	Pomacentridae	Major	0.16	LC (Least Concern)
2	*Scarus dimidiatus*	Scaridae	Major	0.008	LC (Least Concern)
3	*Chromis ternatensis*	Pomacentridae	Major	1.28	Not evaluated
4	*Pomacentrus moluccensis*	Pomacentridae	Major	0.168	Not evaluated
5	*Epibulus insidiator*	Labridae	Major	0.016	LC (Least Concern)
6	*Ablyglyphidodon curacao*	Pomacentridae	Major	0.216	LC (Least Concern)
7	*Chaetodon kleinii*	Chaetodontidae	Coralivore	0.256	LC (Least Concern)
8	*Zebrasoma scopas*	Acanthuridae	Herbivore	0.096	LC (Least Concern)

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
9	*Pterocaesio tile*	Caesionidae	Pelagic	0.32	LC (Least Concern)
10	*Acanthochromis polyacanthus*	Pomacentridae	Major	0.32	LC (Least Concern)
11	*Ablyglyphidodon curacao*	Pomacentridae	Major	0.12	LC (Least Concern)
12	*Abudefduf sexfasciatus*	Pomacentridae	Major	0.048	LC (Least Concern)
13	*Hemigymnus fasciatus*	Labridae	Major	0.016	LC (Least Concern)
14	*Zanclus cornutus*	Zanclidae	Major	0.072	LC (Least Concern)
15	*Heniochus varius*	Chaetodontidae	Coralivore	0.04	LC (Least Concern)
16	*Caesio caerulaureus*	Caesionidae	Pelagic	0.152	LC (Least Concern)
17	*Ctenochaetus striatus*	Acanthuridae	Herbivore	0.144	LC (Least Concern)
18	*Chaetodon auriga*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
19	*Sphyraena flavicauda*	Sphyraenidae	Major	1.28	Not evaluated
20	*Chromis viridis*	Pomacentridae	Major	0.032	Not evaluated
21	*Chlorurus microrhinus*	Scaridae	Herbivore	0.008	LC (Least Concern)
22	*Centropyge vrolikii*	Pomacanthidae	Major	0.008	LC (Least Concern)
23	*Pygoplites diacanthus*	Pomacanthidae	Major	0.032	LC (Least Concern)
24	*Caesio cuning*	Caesionidae	Major	0.048	LC (Least Concern)
25	*Scarus chameleon*	Scaridae	Herbivore	0.024	LC (Least Concern)
26	*Hemigymnus melapterus*	Labridae	Major	0.008	LC (Least Concern)
27	*Chaetodon lunulatus*	Chaetodontidae	Coralivore	0.016	LC (Least Concern)
28	*Paracaesio xanthurus*	Lutjanidae	Carnivore	0.008	LC (Least Concern)
29	*Naso brevirostris*	Acanthuridae	Herbivore	0.136	LC (Least Concern)
Total				**5.04**	

Source: COREMAP CTI, CBA, 2021

Table 23 Value and Density of Mangrove in Paserang Island

Species	Coverage area (Ha)	Total species (unit)	Density (Ind/m2)	Density relative (%)	Frequency of type	Frequency of relative (%)
Bruguiera gymnorrbiza	17	2.8332	566.666	31.4814	1	33.3333
Rhizophora stylosa	30	3.4011	1.000	55.5555	1	33.3333
Avicenia marina	5	1.6094	166.666	9.2592	0.6666	22.2222
Soneratia alba	2	0.6931	66.666	3.7037	0.3333	11.1111
TOTAL	54	8.5368	1800	100	3	100

Source: COREMAP CTI, CBA, 2021

Kambing and Belang Islands

- The mooring buoy will be set in the Kambing island and Belang Island. Refer to the survey that have been conducted, condition of coral reef and fish reef in the Kambing and Belang island as follow:

Coral Cover and Coral Fish

Table 24 Summary of baseline in Kambing and Belang Islands

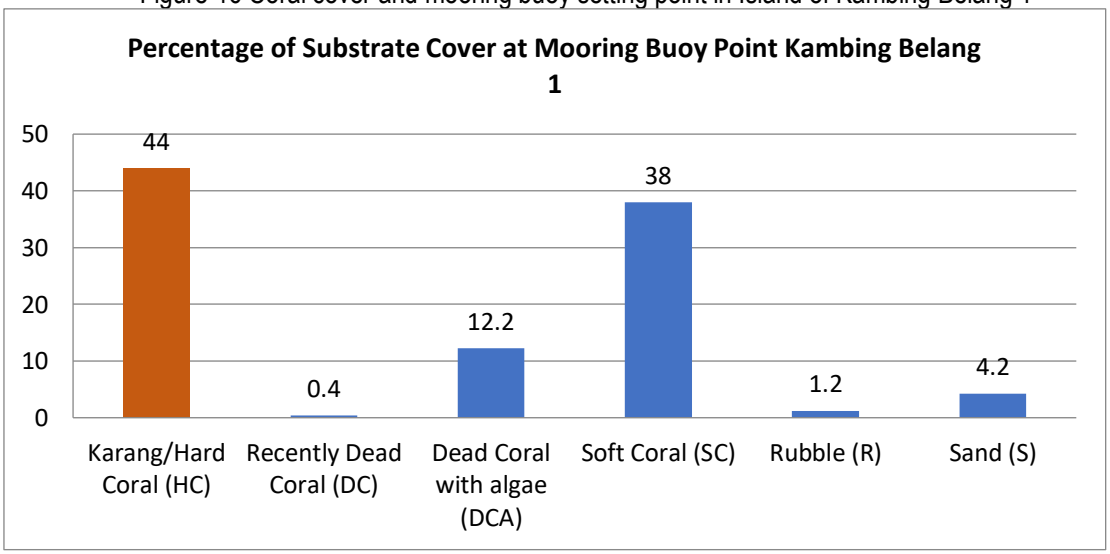
No	Baseline	Remark
1	Substrat	Sandy, rubnble (coral fracture), coral
2	Coral reef covers	44%
3	Non-coral substrat	56% (soft coral 36%)
4	Number of reef fish	445 type
5	Water current speed	0.1 – 0.2 m/s
6	Depth	154 meter
7	Coordinate	S: 8°31'32.5" E: 116°47'10.6"

Source: COREMAP CTI, CBA, 2021

Coral Cover in Kambing and Belang 1 islands

- The coral reef cover or hard coral (HC) around the mooring buoys in Kambing Belang has a cover of 44% while the other 56% is covered by non-coral substrate. Soft coral are the most dominant type of substrate around Kambing Belang, with the percentage of 36%

Figure 16 Coral cover and mooring buoy setting point in Island of Kambing Belang 1



Source: COREMAP CTI, CBA, 2021

Figure 17 Coral cover condition in Kambing and Belang 1 islands

Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish in Kambing and Belang 1 Islands

- There are 29 species of reef fish at the Kambing Belang mooring buoy, which had a total density of 5.044 ind/m2 with several species with the highest density are *Chromis ternatensis, Sphyraena flavicauda, and Chaetodon kleinii*.

Table 25 Coral Fish in Kambing and Belang 1

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
1	*Pentapodius emeryii*	Nemipteridae	Major	0.012	LC (Least Concern)
2	*Acanthurus blochii*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
3	*Parupeneus multifasciatus*	Mullidae	Major	0.012	Not evaluated
4	*Scarus spinus*	Scaridae	Herbivore	0.004	LC (Least Concern)
5	*Chaetodon kleinii*	Chaetodontidae	Coralivore	0.02	LC (Least Concern)
6	*Choerodon anchorago*	Labridae	Major	0.02	LC (Least Concern)
7	*Cirrhilabrus sp.*	Labridae	Major	0.024	DD (Data Deficient)
8	*Ctenochaetus striatus*	Acanthuridae	Herbivore	0.06	LC (Least Concern)
9	*Naso brevirostris*	Acanthuridae	Herbivore	0.048	LC (Least Concern)
10	*Hemigymnus melapterus*	Labridae	Major	0.004	LC (Least Concern)
11	*Abudefduf vaigiensis*	Pomacentridae	Major	0.16	LC (Least Concern)
12	*Abudefduf sexfasciatus*	Pomacentridae	Major	0.016	LC (Least Concern)
13	*Chlorurus bleekeri*	Scaridae	Herbivore	0.012	LC (Least Concern)
14	*Cheilinus unifasciatus*	Labridae	Major	0.004	LC (Least Concern)
15	*Scarus oviceps*	Scaridae	Herbivore	0.012	LC (Least Concern)
16	*Acanthochromis polyacanthus*	Pomacentridae	Major	0.068	LC (Least Concern)
17	*Heniochus varius*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
18	*Zebrasoma scopas*	Acanthuridae	Herbivore	0.016	LC (Least Concern)
19	*Ptereleotris evides*	Ptereleotrididae	Cryptic	0.016	LC (Least Concern)
20	*Acanthurus nigrofuscus*	Acanthuridae	Herbivore	0.012	LC (Least Concern)
21	*Chromis ternatensis*	Pomacentridae	Major	0.64	Not evaluated
22	*Chromis viridis*	Pomacentridae	Major	0.64	Not evaluated
23	*Ablyglyphidodon leucogaster*	Pomacentridae	Major	0.048	LC (Least Concern)
24	*Ablyglyphidodon curacao*	Pomacentridae	Major	0.032	LC (Least Concern)
25	*Hemigymnus fasciatus*	Labridae	Major	0.028	LC (Least Concern)
26	*Scarus flavipectoralis*	Scaridae	Herbivore	0.012	LC (Least Concern)
27	*Hemigymnus melapterus*	Labridae	Major	0.012	LC (Least Concern)
28	*Parupeneus macronema*	Mullidae	Major	0.004	LC (Least Concern)

No	Species	Familia	Functional Group	Density Ind/m2	Status IUCN Red List
29	*Cheilio inermis*	Labridae	Major	0.012	LC (Least Concern)
30	*Centropyge vrolikii*	Pomacanthidae	Major	0.032	LC (Least Concern)
31	*Zanclus cornutus*	Zanclidae	Major	0.008	LC (Least Concern)
32	*Labroides dimidiatus*	Labridae	Major	0.008	LC (Least Concern)
33	*Cirrhilabrus cyanopleura*	Labridae	Major	0.16	DD (Data Deficient)
34	*Labrichthys unilineatus*	Labridae	Major	0.008	LC (Least Concern)
35	*Aulostomus chinensis*	Aulostomidae	Major	0.004	LC (Least Concern)
36	*Pomacentrus moluccensis*	Pomacentridae	Major	0.108	Not evaluated
37	*Cheilinus celebicus*	Labridae	Major	0.004	LC (Least Concern)
38	*Scolopsis bilineata*	Nemipteridae	Major	0.02	LC (Least Concern)
39	*Thalassoma hardwicke*	Labridae	Major	0.016	LC (Least Concern)
40	*Chaetodon melannotus*	Chaetodontidae	Coralivore	0.012	LC (Least Concern)
41	*Parapercis sp.*	Pinguipedidae	Cryptic	0.004	Not evaluated
42	*Chaetodon lunulatus*	Chaetodontidae	Coralivore	0.008	LC (Least Concern)
43	*Centriscus scutatus*	Centriscidae	Major	0.06	LC (Least Concern)
44	*Grammatorcynus bilineatus*	Scombridae	Pelagic-Carnivore	0.004	LC (Least Concern)
45	*Plectorhinchus vittatus*	Haemulidae	Carnivore	0.004	LC (Least Concern)
TOTAL				**2.432**	

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover and Coral Fish Type in Kambing and Belang 2 Islands

Table 26 Baseline data in Kambing and Belang 2

No	Baseline	Remark
1	Substrat	Sandy, soft coral
2	Coral reef covers	0 %
3	Non-coral substrat	100% (sand and soft coral)
4	Number of reef fish	Only a few
5	Water current speed	0,3 – 0,4 m/s
6	Depth	12 meter
7	Coordinate	8°32'36.07"S ; 116°45'52.57"T

Source: COREMAP CTI, CBA, 2021

Figure 18 Condition of coral in Belang 2

Source: COREMAP CTI. CBA. 2021

Namo Island

- The surveillance post will be built on Namo Island. Geographical, Namo island located in 116°51’ 02,12” WL, 8°30’ 37,69” SL with the total area 190,90 ha. White sand along the beach in the north and western site of the island. Meanwhile, the eastern and south site are covered by the mangrove in various species. Namo island has extensive mangrove forest with type and coverage as follow:

Table 27 Value of Mangrove in Namo Island

Species	Coverage area (Ha)	Total species (unit)	Density (Ind/m2)	Density relative (%)	Frequency of type	Frequency of relative (%)
Bruguiera gymnorrbiza	31	3.4339	310	16.57754011	0.9	34.6153
Rhizophora stylosa	132	4.8828	1.320	70.58823529	1	38.4615
Avicenia marina	20	2.9957	200	10.69518717	0.5	19.2307
Soneratia alba	4	1.3862	40	2.139037433	0.2	7.6923
TOTAL	187		1870		2.6	

Source: COREMAP CTI, Sucofindo, 2021

Social and Economic Condition Village of Poto Tano

- **Social Economic Resources**. In Poto Tano subdistrict as the only one closest village to MPA Gili Balu, West Sumbawa district, there are 25 schools including pre-school, elementary school, junior high school and senior high school. Total teachers is 227 person. Unfortunately, getting higher the education level, total of students decreasing due to various reason such as economic problems, and accessibility from home to the school or livelihood issues.
- Based on survey of the Statistic Berau in 2019, the main livelihoods of the people in Poto Tano are fishermen and non-farming. There are about 377 households are Fishermen and 43 households are non-farming. The survey indicated the economic facilities that adequately support the economy of the Poto Tano community, There is no change if compared with the previous year in the economic sector, the agriculture sector is still the most dominating sector in term of absorbing labor.
- **Social cultural resources.** The majority of the people of Poto Tano are almost 100% are Moslem with adequate means worship in Village of Poto Tano, either Mosque or mushalla.
- **Customary rules** in Gili Balu are set forth in awig-awig (customary law) resulting from a mutual agreement InPoto tano Village, there are awig-awig

related to the coast and the sea such as the prohibition of using fishing bomb and poison.

- **Community Health**. There are two category for health facility in Poto Tano, are Health Center Hospitalization and health center non hospitalization; beside of that there is hospital, maternity hospital and clinic. The number of health center hospitalization in Poto Tano is 2 and Health Center non hospitalization is 3 unit. The health center will be frontline conduct preventive in community health and first aid for the injured prior to take care in the hospital.
- **Gender Context**. Based on the BPS, 2020, the population of village of Poto Tano in 2019 (Statistic 2020, Poto tano in figure) is estimated to be around 1,648 people, consisting of a male population of 809 people and a female population of 839 people.

Gili Matra

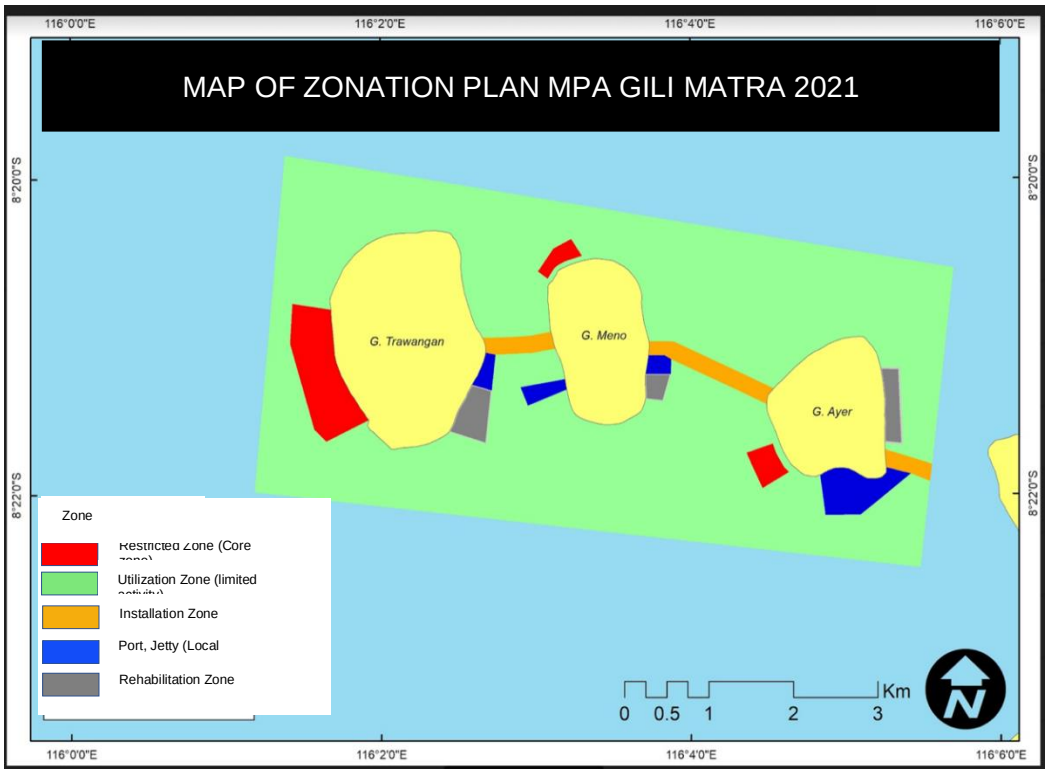
Physical Environment

- **Climate**. Climate condition in Gili Matra is dry season in early June to late of September and rainy season in October to November, with temperature ranging from 23^0 C to 32^0C and the average precipitation is 259 mm per year.
- **Geography and Geology.** Gili Matra MPA is part of North Lombok Regency, West Nusa Tenggara, which consists of three small inhabitant islands, are: Gili Matra, Gili Meno and Gili Air, the position of the MPA Gili Matra is 08^0 20' – 08^0 22' SL and 116^0 01' – 116^0 12' WL.
- **Water quality**. Parameters of water quality in Gili Matra salinity ranged from 32.95 psu – 33.33 psu. Then the dissolved oxygen parameter ranges from 5.79 mg/l – 6.54 mg/l spread evenly in many data collection stations. The pH parameter in Gili Matra waters ranges from 7.6 to 7.7. The parameters of the brightness of the waters in Gili Matra range from 2 m - 20 m with the lowest brightness being at stations near the coast. Temperature parameters in Gili Matra waters range from 28.2°C – 30°C with an average temperature of 29ºC.
- **Temperature and Wave**. In Gili Matra the sea surface temperature ranges from 27°C - 30.5°C with different patterns in the west and east monsoons. The highest salinity in Gili Matra occurs in the second Transitional Season around September and October, while the peak of low salinity generally occurs in the first Transitional Season around March and April with a range from 31 psu – 34.5 psu. Surface currents in the Gili Matra area from January 2010 to December 2021 range from -0.5 m/s – 0.5 m/s and vary with time. In Gili Matra the chlorophyll concentration tends to be stable with chlorophyll concentrations ranging from 0.15 mg/m3 - 0.25 mg/m3 with variations in the West Season, Transitional Season I, East Season and second Transitional Season. Based on the calculation, it is found that the tidal harmonic constant on Gili Matra has a mixed tidal type which tends to be double.
- **Climate Change**. Increased sea surface temperatures due to global warming that occurred from early to mid-2016 cause of coral bleaching in several location in Gili Matra, Observation of coral bleaching obtained from coral colonies competition affected by bleaching (50%), white (18%), death (1%) and was not affected (31%). These implication resulting decline in coral cover but not significant ($F(1,013) = 0.333$, $p < 0.05$) from 23,43% +- 2,61 SE in 2012 to 18,48% +- 4,14 SE in 2016 and a significant decrease ($P(58,06) = 3,8e^{-06}$) recruitment of coral (coral Juvenil) from 6,66 $ind.m^{-1}$ +- 1,04 SE in 2012 to 1,41 $ind.m^{-1}$ +- 0,16 SE in 2016. The other impact is significant reduction, the abundance of reef fish. The decline of coral recruitment resulted in the recovery of the affected areas bleaching becomes slow because of the juvenile new coral mostly dead. The second impact of bleaching is

and abundance of fish decrease, indicating that is available only fish big size (adult) and very less of small fishes, including juvenile[1].

- **MPA Gili Matra** waters in West Nusa Tenggara Province has a total area of 2,954 hectares, consist of area Gili Air is 175ha, Gili Meno is 150ha, and Gili Trawangan is 340ha. The coordinate location in 80 200 230 SL, 1160000 – 1160 080 EL and administratively under Subdistrict Pemenang, North Lombok District, in West Nusa Tenggara Province.
- The planned location for infrastructure development will be in two area, the Information Centre will be built in Teluk Nare in mainland Lombok Island, and the Surveillance Post will be built in Gili Trawangan, as one of the three island in MPA Gili Matra.

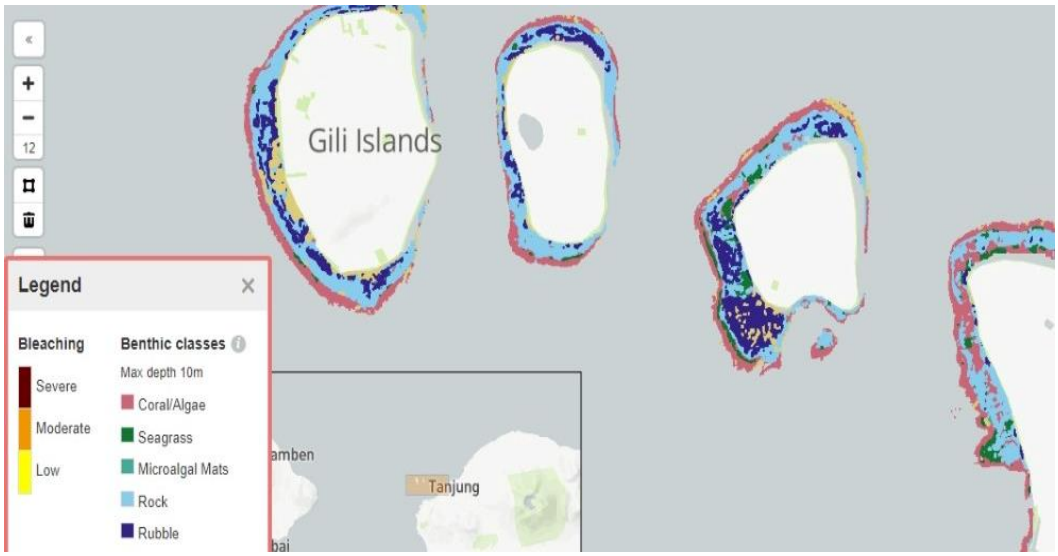
Figure 19 Zonation of the MPA Gili Matra



Source: COREMAP CTI, DCM, 2021

Ecological Resources

Figure 20 Map of Biodiversity Distribution MAP of MPA Gili Balu



Source: COREMAP CTI, DCM, 2021

Coral Reef in MPA Gili Matra

- The consultant team of the PT. DCM conducted coral reef survey in MPA Gili Matra in September – November, 2021 and result of the survey presented below:
- Type of the coral reef in Gili Matra is fringing reef, with total of area is 696,22ha. Coral cover in the marine protected area is 24,48%. In 2016, there was coral bleaching in certain underwater tourism spot in protected area such as Air core, Hans reef, and Meno wall. Currently, the condition is improving based on the research results of Setiawan *et al* year 2017, where in several survey locations there was an increase in coral reefs such as Meno Wall (18.67% to 46%), Shark points (20% to 22.33%), Bat Sire (9.33% to 9.83 %), Tanjung Sire (23.5% to 36%), Medane Bay (26.67% to 28.17%), and Ujung Sire (7.67% to 20%).
- The benthic cover within the Gili Matra water is dominated by dead coral smothered in algae, 38.4% ± 3.4 SE (standard error). Hard coral constituted 20.4% ±2.8 SE of the reef and sponges constituted 16.6% ±3.9 SE. The benthic community has a low percentage cover of soft coral 4.4% ±1.3 SE and fleshy seaweed 0.1% ±0.1 SE.
- An ecological survey of the Gili Matra TWP conservation area was carried out in 2016 by Setiawan et al with the aim of knowing the ecological conditions in the conservation area, the survey was carried out at 14 observation locations (10 points in Gili Matra TWP and 4 points on the mainland as controls). The method of data collection for coral reefs uses the method of collecting substrate cover data using a Point Intercept Transect (PIT) along a 50 m length by recording 100 substart points following the method carried out in previous observations. Observation of the impact of coral bleaching was carried out using a rapid survey method at 6 observation sites. Recording was done by estimating the bleaching category of coral colonies recorded with genera information and classified into 7 bleaching categories, normal, puvat, 1-20% white, 20-50% white, 50-80% white, 80-100% white and dead. The ecological parameters of reef fish observed were species diversity, abundance and biomass. Statistical analysis was carried out by testing whether there were significant differences in each of the research samples taken.

Table 28 Analysis of survey result in Gili Matra

No	Titik Survei/Stasiun	Longitude	Latitude	HC %	FS %	R %	Biomass Fish target kg/ha	Fish Density (individuals/250m2)	Fish Species Richness	Resilient reef FS (1=yes; 0=no)	Coral Health Index
1	GT1	116.042304	-8.358226	16.67	5.56	0.00	25.87	37	4	0	1
2	GT2	116.043944	-8.349058	5.56	20.00	14.44	59.48	52	6	0	1
3	GT3	116.043089	-8.34454	2.00	0.00	9.33	5.60	19	6	1	3
4	Zona Rehabilitasi Meno	116.0624	-8.354232	1.11	5.56	43.11	5.11	37	4	0	1
5	Calon Zona Inti Meno 1	116.052224	-8.34169	44.89	6.44	1.78	63.44	61	8	0	4
6	Calon Zona Inti Meno 2	116.052961	-8.341006	73.56	0.44	2.44	36.25	98	6	1	6
7	Sunset House Meno	116.052098	-8.359427	18.89	0.00	54.44	44.53	53	6	1	3
8	GA1	116.074727	-8.352980	35.56	10.00	11.78	35.40	86	6	0	4
9	GA2	116.088336	-8.349955	8.22	0.00	29.33	19.85	110	5	1	3
10	GA3	116.088407	-8.3626	10.44	16.22	6.00	307.81	156	5	0	1
11	Zona Rehabilitasi Air	116.08419	-8.364747	51.78	2.67	5.78	41.36	86	7	1	6
12	Area Abrasi Air	116.085697	-8.365952	3.33	12.22	30.00	47.56	90	5	0	1
13	Warung Sasak Air	116.088511	-8.35878	10.00	32.22	0.00	38.57	48	6	0	1

Note: HC% is the increase in coral reef coverage, FS% is Fleshy Seaweed (Algae) is the percentage of algae cover and R% is (Rubble) the percentage of coral rubble.

- **Seagrass and mangrove**. Mangrove would be found in Gili Meno and Gili Trawangan, with condition is coverage up to 75% in the moderate category. The type of mangrove consist of *Bruguiera cylindrica, Sonneratia alba, Avicennia alba, Lumnitzera aureum,* Meanwhile, based on the assessment found total area of seagrass in Gili Matra is 116,816ha, with type of seagrass are: *Thalassia pinofolia, Syringodium isotifolium, and Halodule uninervis*.
- **Fish community average**. The density of the targeted fish families (*Snapper, Grouper, Parrotfish, Rabbitfish, Surgeonfish, Butterflyfish*) ranged from 42.0 ±14.0 SE at Sunset Point to 121.7 ±40.9 SE at Turtle City. The density of butterflyfish, which are considered a reliable indicator of reef health (Hourigan, Timothy, Reese., 1988), was highest at Halik, which is consistent with the current study's CHI index scores. Interestingly, the biomass of the target fish families was lowest at Turtle City 17.3kg/ha ±7.4, and highest at Shallow Turbo 129.1kg/ha ±20.1 (Figure 10). Across all dive sites, there was a large variation in fish density between the target fish families, with a notably low density of Snappers, Groupers, Rabbitfish and Parrotfish relative to Butterflyfish and Surgeonfish. The most common fish was the Lined *Bristletooth, Ctenochaetus* striatus from the Surgeonfish family and the least common fish were from the Snapper family.
- Refer to table 26 above, across all dive sites within the MPA Gili Matra, the average CHI score is 3.7, which suggests "low-medium" reef health on the CHI scale of 1 to 10. According to these CHI scores, the healthiest sites within the Gili Matra are Halik (6), Shark Point (5) and Statue Garden (5). With respect to the zonation of the MPA Gili Matra, it appears that the three healthiest reefs all exist within 'No Fishing' zones.

Social Economic Condition

- **Administration.** Administratively, the area of MPA Gili Trawangan located in the Village of Desa Gili Indah with total area 678ha, which is part of the Subdistrict of Pemenang, North Lombok District. The village consists of three small islands with administrative border area, as follow: up north is Jawa sea, and West is Lombok strait, and South is Kombal Bay, and East: Sira sea.
- **Social Economic Resources.** In Gili Matra, Pemenang Sub District, North Lombok district, there are 5 schools including elementary school, junior high school and senior high school. Total students are 588 pupils and total of the teachers is 55 person.Based on survey of the Statistic Berau in 2019, the main livelihoods of the people in Gili Matra are tourism activities, with almost 80% of the people who work as assistant in hotel and restorants, tour guide. The other activities are handcraft with small medium enterprises. Other than that, the livelihood of the community is fishermen especially capture fish. The majority of the people of Gili Matra are almost 100% are Moslem with adequate means worship in Village of Gili Indah, either Mosque or mushalla. Customary rules in Gili Matra mostly domestic migrant including Bugis, Sasak, Bali, Jawa and Madura. International migrants are stay and develop business in Gili Trawangan and acculturate with local community**.** Related to the community Health**,** there is no Hospital and Health Community Centre (Puskesmas) in Gili Matra, only 2 units for the Auxiliary Health Center Unit, 3 unit for Integrated health center (Posyandu) and 4 units for the Polyclinic and 4 unit for drugstores. Total 13 units of health facilities in Gili Matra. There are also 12 health practitioners, including medical practicioners (docter), nurses, and tocologist (midwife).
- **Gender Context**. Based on the BPS year of 2020, the population of village of Gili Indah, MPA Gili Matra in 2019 (Statistic 2020, Poto tano in figure) is estimated to be

around 6,829 people, consisting of a male population of 3,660 people and a female population of 3,169 people.

I. Disclosure, Consultation & Participation

Initial Environmental Examination (IEE) were prepared for each subproject area and approved by ADB. The IEE confirm that each sub project fall under "Category B" for environmental impact. During the reporting period (June-December 2021) there has been no construction development process and no adverse environmental impact. Consistent with Government of Indonesia's Law and ADB's Safeguard Policy Statement (2009) (SPS), meaningful consultation was organized.

Consultations

Table 29 Consultation/Information Dissemination Meetings Conducted During Reporting Period

Date	Location	Participants [Disaggregated by gender]		Consultation content
		Male	Female	
June 30 and July 2-3, 2021	Nusa Penida	77	23	Coordination Meeting with Stakeholders of COREMAP-CTI Package 4 Nusa Penida Project and Community Meeting for Coral and Mangrove Rehabilitation Program in Nusa Penida
July 26-28, 2021	Nusa Penida	20	4	Technical Guidance and Evaluation of EVIKA KK Nusa Penida
August 30-31, 2021	Nusa Penida	64	18	Community Meeting and Dissemination of Baseline Survey Results of Mangrove Ecosystem and Seaweed Cultivation in Nusa Penida Conservation Area
September 2, 2021	Lembongan Island	6	10	Meeting with KWT Segara Caksu Lembongan
September 7 – 10, 2021	Lembongan Island	13	0	Training on Resource Use Monitoring (RUM) in the Nusa Penida Conservation Area for the Gili Buana Community Surveillance Group (Pokmaswas) Lembongan Village, Klungkung Regency, Bali Province
Septembe 10, 2021	Nusa Penida	20	9	COREMAP CTO-ADB Nusa Penida Monitoring and Evaluation Site Review
November 2, 2021	Batununggul Village	31	6	Community Meeting and Socialization of Monitoring Post Development in Batununggul Village
November 3, 2021	Nusa Ceningan	17	1	Community Meeting and Socialization of the Development of Mangrove Tracks and Bird Watching Towers in Nusa Ceningan
November 24-27, 2021	Nusa Penida	26	4	Training for RUM and the community surveillance group Baruna Jaya of Suana Nuasa Penida Village
November 29, 2021	Nusa Penida	34	4	Dissemination of Survey Results and Community Meetings for Coral Reef Rehbilitation Program
November 30, 2021	Nusa Penida	37	5	FDG Study on Cost-Benaefit Analysis and Economic Valuation of Coral Reef and Mangrove Rehabilitation Program
December 1-5, 2021	Nusa Penida	295	87	Study Survey Cost-Benefit Analysis and Economic Valuation of Coral Reef and Mangrove Rehabilitation Program
22 Mar 2021	CDK Office Poto Tano	20	-	Consultation and introduction to Pokmaswas regarding project in Gili Balu
6 May 2021	CDK Office Poto Tano	11	-	Stakeholder meeting ICCTF, Project consultant, Surveillance group, representative of community
14 Jun 2021	The Consultant office	13	4	Coordination with Pokmaswas regarding surveillance boat
15 Jun 2021	The Consultant office	13	4	Coordination with Pokmaswas related to mangrove forest restoration
12 Juni 2021	Senayan village	12	4	Community Meeting
14 Juni 2021	Poto Tano	16	4	Community meeting on patrol boat for surveillance group
15 Juni 2021	Poto Tano	16	4	Community meeting on Mangrove with community surveillance group
3 Agusut 2021	Poto Tano	10	4	Community Meeting
12 August 2021	Poto tano	10	4	Consultation Meeting

22 September 2021	Poto Tano	12	5	Consultation Meeting
12-08-2021		23	6	Workshop on Identify Standard Operation Procedure (SOP)
23-08-2021	Gili Matra	13	6	FGD for identification for two SOPs in Gili Matra
25-08-2021	Gili Matra	8	1	Coordination meeting on concept of Payment for Ecosystem Services (PES)
25-09-2021	Gili Matra	15	0	FGD PES with community in Gili Matra
08-09-2021	Gili Matra	15	5	Stakeholder meeting MPA Gili Matra
09-09-2021	Gili Matra	12	3	FGD Coral Reef Survey in MPA Gili Matra
29-09-2021	Gili Matra	20	3	FGD PES with community in Gili Matra
17-11-2021	Gili Matra	23	4	Workshop coral restoration survey result
18-11-2021	Gili Matra	38	2	Dissemination the instrument on Destructive Fishing in MPA Gili Matra
19-11-2021	Gili Matra	14	3	Workshop to identify indicator biota for coral reef in MPA Gili Matra
22-11-2021	Gili Matra	23	5	Workshop Coral Restoration Method, Case study in Gili Matra
26-11-2021	Gili Matra	16	3	FGD for Drafting SOP
29-11-2021	Teluk Nare	20	3	Dissemination on SOP Priority Document
01-12-2021	Gili Matra	26	4	FGD on Development of Information Centre, Sign Board, Boundary Signage, Sign Flag
03-12-2021	Gili Matra	13	6	FGD on one gate system initiative for Visitor Management System (VMS)
08-12-2021	Teluk Nare	13	7	Coordination meeting on establishment of Teluk Nare as location for Information Center

Other Remarks on Public consultation and participation

The project's environment safeguards team adopted various approaches for identification of environmental impacts of the subproject's schemes including survey, desk study, public consultation (village meetings, FGDs), obtaining and examination of existing data and information, and conducting of in-depth interviews with the stakeholders. Series consultation meetings were organized since June to December 2021 with participation 1330 meeting participant, of which, 265 participants are females.

In the meetings, design of the infrastructure schemes was presented and the land acquisition impacts as well as the potential impacts of the subproject on environment were discussed. A part from the village meetings, the project's environment safeguards team conducted FGDs with community representatives of the area that the subproject infrastructures will be built on and FGDs with local government officers, village leaders, Customary Forum in Nusa Penida, Gili Balu and Gilil Matra, including customary community. Furthermore, consultation with community leaders in those area was also conducted to get information and confirm.

J. Operation of Grievance Redress Mechanism (GRM)

The implementation

In the overall project implementation process, the grievance redress mechanism is implemented by reporting directly to the implementing partners, the site coordinator, and to the local government as the main partner of the COREMAP-CTI project implementation. All complaints are collected through a complaint report by the site coordinator and reported to the ADB PIU. The project grievance redress mechanism implementation for the period June-December 2021 is as follows:

Table 30. Grievance redress mechanism

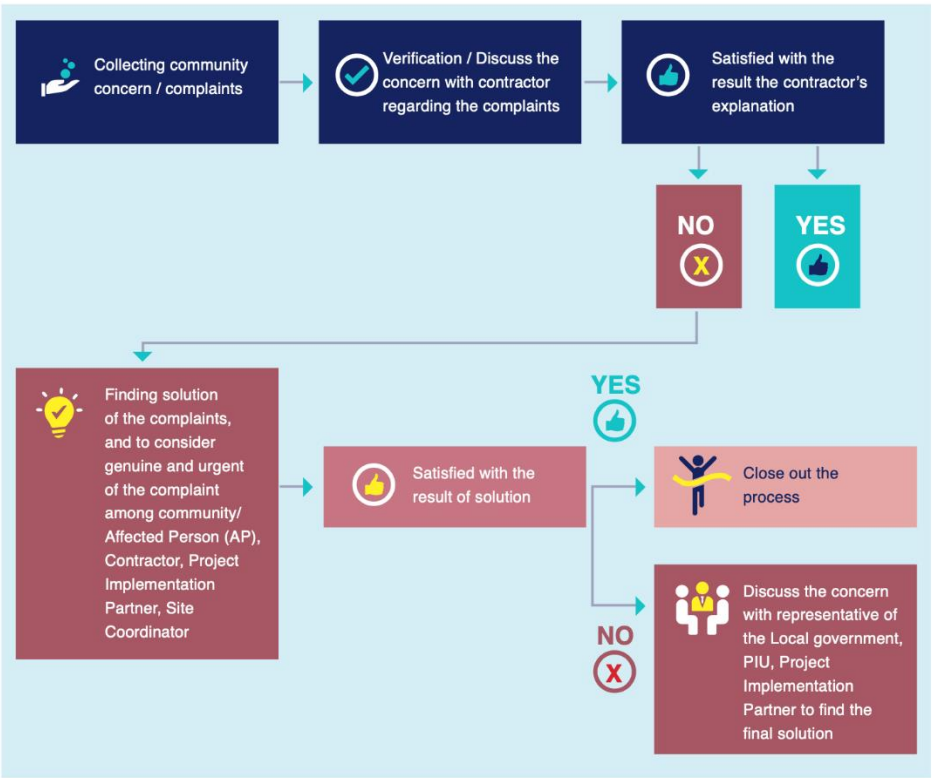
No	Date	Complainant	Reporting Method	Project Location	Grievance	Result	Status	Note
1	1 November 2021	Kelihan Banjar (Head of Banjar)	Face to face	Nusa Penida	Kelihan Banjar requested that the location of the monitoring post be shifted to the east from the initial planning location for the monitoring group, considering that this place has been used for a long time for traditional ceremonies (Melasti) of the local community.	Coordination with related parties has been carried out and it has been agreed to shift to the east from the starting point so that Melasti activities can still be carried out.	Resolved	GP4

The grievance has been agreed between the project and the community, although it has not followed the Grievance Redress Mechanism form that is being developed. In addition, there are 2 suggestions from the community regarding the activities to be implemented, the two responses are:

- Martanina (BKKPN) on October 4, 2021 in Bangsal → A suggestions was submitted by the Regional Assistant that the implementing partner of GP5 was deemed not to have explained and coordinated well in land acquisition for infrastructure development as expected by COREMAP CTI, and this issue being resolved by project coordinator Gili Matra has re-approached and built good communication and coordination with the local government
- Expert staff of governor (for tourism – Dr. I Ketut Sugiarta) on December 2021 in Denpasar → there are two suggestion (1) The ecotourism competency-based training plan, which mentions the need for standard improvements, considering that the assessors will test the dive masters and instructors where their diving skills are internationally recognized and (2) Planned training time, where the implementation is considered long (at least 4 days) with fairly heavy material and exams. Regarding planning for the implementation of training, it is still in the process of consulting with stakeholders and being discussed in the TOR of activities

The implementation of the subproject (construction project) is still in the preparation process (issuance of SPPL, DED, DDR and IEE document at the three projects location, so that the implementation/operational process of the Grievance Redress Mechanism (GRM) is not yet available. However, the GRM mechanism has been prepared to accommodate complaints from ongoing construction project.

Flowchart 1. Flowchart of the Grievance Redress Mechanism (GRM)



During the construction, when the community would like to express their concern due to disturbed by the construction activities, the process consists of following step:

- **Collecting the community concern**, in this stage, the affected people would address their concern through various media communication (form based, chat, or direct communication to the Project officer) that disturbed by the project construction activities.
- **Verification the concern,** in this stage, the Project officer including site coordinator, project consultant and representative of village officer would check the validity of the community complaints or concern, the project team would response to the verified concern in no more than two days.
- **Finding the solution**. When the concern or complaints from community is genuine and urgent to be solved, the project team with coordination with representative community leader and representative from local government will solve the complaints, with no more than 2 weeks.
- **Close out the process**. When the complaints are solved and the community agreed with the process, the project team and representative of community leader will proceed the close out process with notification letter.

Complaints report flow:

- Affected People make a complaint → Direct complain (GRM Form) or via WA/SMS/Telfon (hotline will provide per site by the contractor)
- Contractor resolves complaints directly/indirectly resolves complaints → Mandatory report to google form https://bit.ly/GRM-ADB and inform to Site Coordinator.
- If the result explanation (1) is not satisfied, affected person, contractor, project implementation partner, Site Coordinator will find the solution → Site Coordinator wajib melaporkan penyelesaiannya kedalam Google Sheet GRM Report and Inform to PIU (Novi).

- If the result solution/explanation (2) is still not satisfied (need wider parties-for example), local gov, PIU, project implementation partner will find the solution → PIU (Novi) will update the solution progress in Google Sheet GRM.

K. Institutional Matters and Capacity Training

PMU, contractor and PIU are responsible to monitor implementation of environment safeguard requirements (ESR) under the project. ADB has provided general training for PMU and PIU staff implementation of environmental safeguard requirement. A safeguard and program officer ware appointed in June 2022. Specific guidance will be provided for PIU, contractors, construction supervisor and key staff in each subproject for objective monitoring for their adhering to environment safeguard procedures during construction process.

L. Institutional Arrangement

Bappenas is the Project Executing Agency (EA). The Project Implementing Agency (IA) is Indonesia Climate Change Trust Fund (ICCTF). The IA engaged the Project's Consultant to implement the COREMAP CTI Project. These are including:

- Surveillance tower and information center, mangrove tracking and bird watching tower in Nusa Penida. The project consultant, PT Trans Intra Asia a (TIA) with its joint venture Yayasan Bahtera Nusantara (Banur) and Coral Triangle Centre (CTC) are responsible to construct the subproject infrastructures and conduct engagement to environmental examination.
- The surveillance tower (2 unit) and information centre in Gili Balu. The project consultant, PT Cakra Buanaa Aghna (CBA) with its joint venture PT. Ciriajasa Engineering Consultant, Konsepsi NTB and PT. Sucofindo is responsible to construct the subproject infrastructures and conduct engagement to the affected community.
- The surveillance tower and information centre in Gili Matra. The project consultant, PT Duta Cipta Mandiri (DCM) and its Joint Venture PT. Ciria Jasa Engineering Consultant, Cakra Buana Aghna (CBA) and Gili Eco Trust are responsible to construct the subproject infrastructures and conduct engagement to the IP and affected communities.

Safeguard management and monitoring in this project will be carried out at all stages of the implementation process. IA will assign a safeguard and program officer to oversee the safeguard reporting process and monitor implementation activities in the field. Site Coordinators at 3 construction sites will assist in the process of monitoring the implementation of safeguards during the project preparation and implementation process (site coordinators will routinely coordinate directly with contractors in the field). contractor/sub-project together with implementing partners/consultants will implement safeguards and report on a daily basis and PIU will carry out regular monitoring during the development process.

M. Monitoring Results – Findings

Nusa Penida

- The construction points of mangrove tracking and bird watching is located in the mangrove area and does not have any terrestrial ecological or biological (flora fauna) endemic, endangered biodiversity.
- Impacts on the terrestrial and shallow water marine ecosystem and their environmental such as mangrove area resulting from the project construction

activities are expected to be minor.

- The construction point of the subproject infrastructure does not impact any terrestrial or marine conservation and protected area, sites of cultural, customary of heritage significant nor any national or international endangered or protected species (sunfish).
- Impacts on the environmental associated with the coastal ecosystem resulting from the physical dredging of the area and subsequent increased short lived sedimentation has a low impact on the marine fauna and flora due to the scarcity of resources located within and adjacent to the project area of influence.
- Proactive management of all pre-construction, construction and operational activities will ensure limited disturbance to the daily business activities undertaken within the subproject infrastructure surrounding and community activities.

Gili Balu

- The construction of two units surveillance post is located in the two islands, Paserang and Namo Islands and does not any terrestrial ecological or biological (flora fauna) endemic, endangered biodiversity.
- The construction point of the subproject infrastructure does not impact any terrestrial or marine conservation and protected area, sites of cultural, customary of heritage significant nor any national or international endangered.
- Impacts on the environmental associated with the coastal ecosystem resulting from the physical dredging of the area and subsequent increased short lived sedimentation has a low impact on the marine fauna and flora due to the scarcity of resources located within and adjacent to the project area of influence.
- Proactive management of all pre-construction, construction and operational activities will ensure limited disturbance to the daily business activities undertaken within the subproject infrastructure surrounding and community activities.

Gili Matra

- The construction of surveillance post is located in the Gili Trawangan Islands and does not any terrestrial ecological or biological (flora fauna) endemic, endangered biodiversity.
- The construction point of the subproject infrastructure does not impact any terrestrial or marine conservation and protected area, sites of cultural, customary of heritage significant nor any national or international endangered.
- Impacts on the environmental associated with the coastal ecosystem resulting from the physical dredging of the area and subsequent increased short-lived sedimentation has a low impact on the marine fauna and flora due to the scarcity of resources located within and adjacent to the project area of influence.
- Proactive management of all pre-construction, construction and operational activities will ensure limited disturbance to the daily business activities undertaken within the subproject infrastructure surrounding and community activities.

O. Compliance Status

Status in subproject is as below:

- GRM is developed (mechanism and reporting form) and planning to be in place in all subproject. And contractor representative, EHS persons records the grievances relating to civil works and resolving.
- Site Coordinator (PIU) is in place in all subproject area and monitors the subproject activity.
- No temporary impact encountered during this reporting period.
- MTR visit were carried out by PMU during this reporting period.

P. Follow up Actions, Recommendation and Disclosure

Therefore, the finding of this Environmental Safeguard Monitoring Report confirmed the finding of IEE, as per ADB Safeguard Policy Statement, the project have been categorized as less adverse environmental impacts or it will create no significant adverse environment impact, some negative impact identified can be easily mitigated by adopting environmental management plan (EMP) and or Construction Environmental Management Plan (CEMP) that will be prepared. Several environmental assessment requirements prior to construction based on regulation number 16 year 2012 regarding guildelines for the preparation of environment document and regulation number 8 year 2013 regarding procedures for assessment and examination of environmental document and issuance of environmental permits, such as the preparation of SPPL or UKL UPL documents will also be carried out to minimize environmental impacts.

PMU and PIU provide details of necessary building requirement to contractors to meet ADB Safeguard guidelines to avoid impact and issues. Since small contractors are carrying out most of civil works, PIU and Implementation partner/consultant (GP) will provide an awareness program for contractors on ADB environment safeguard requirement.

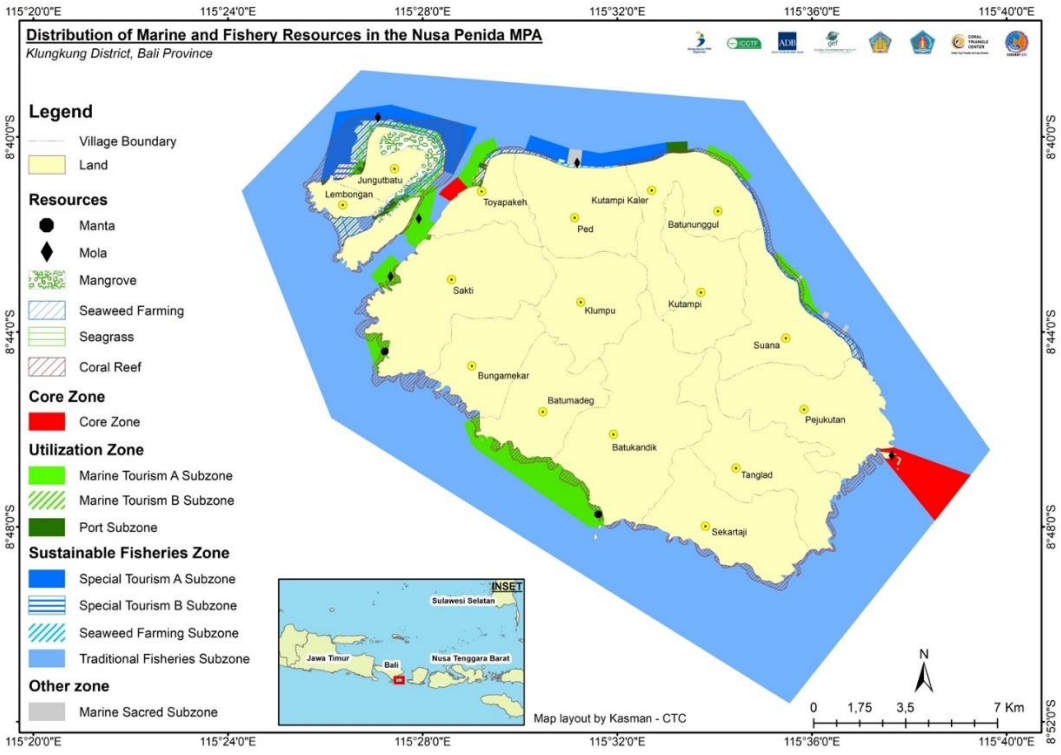
Activity planned under environment safeguard component of the project

Table 31. Activity planned under environment safeguard component of the project

Activity	Details	Time plan
Creating DED for all construction	Will be led by project implementation partner	Q1 and Q2 year of 2022
Preparation for the CEMP with contractor	Will be led by contractor in coordination with project implementation and PIU	Q1 and Q2 year of 2022
GRM awareness and training	- GRM training will conduct in each subproject and contractor - GRM awareness will conduct in the community and stakeholders in all subproject area	June to July, 2022
Preparation of ADB required report	Quarterly, bi-annual and annual report on the HSEP	At the time of requirement

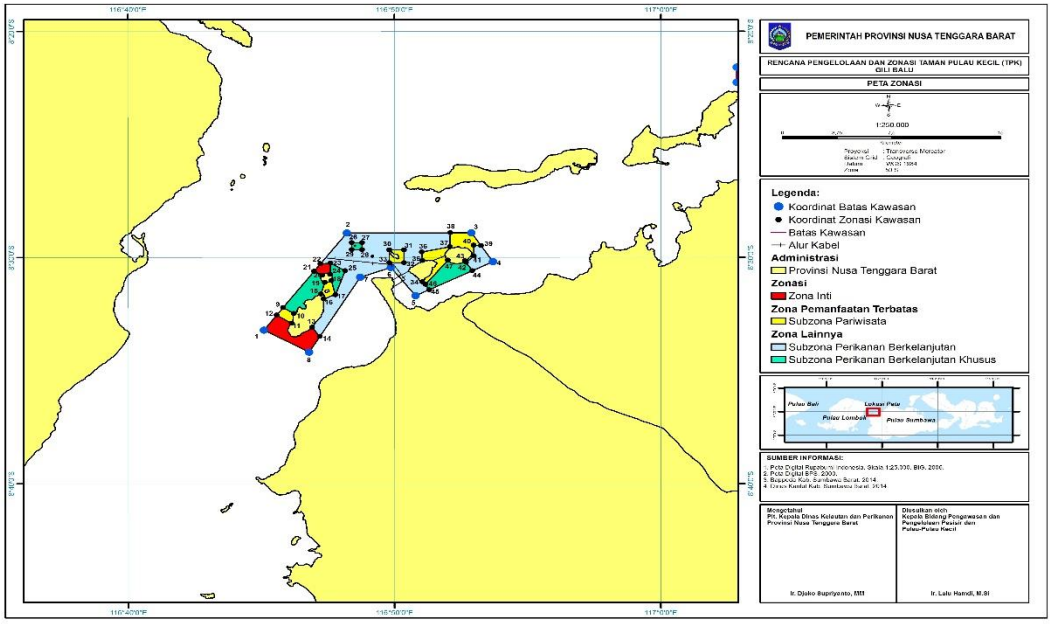
APPENDIX 1
Location Map of the Subproject

a. Location Map of Nusa Penida Islands Subproject Area



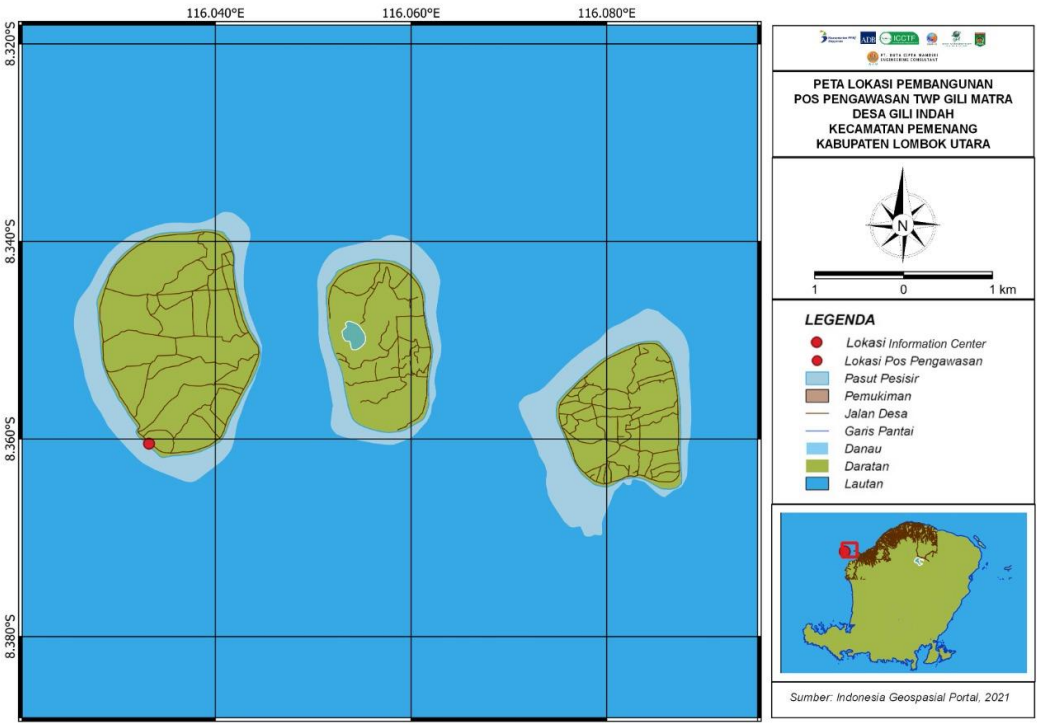
Source: Coral; Triangle Center (CTC), 2021

b. Location Map of Gili Balu Islands Subproject



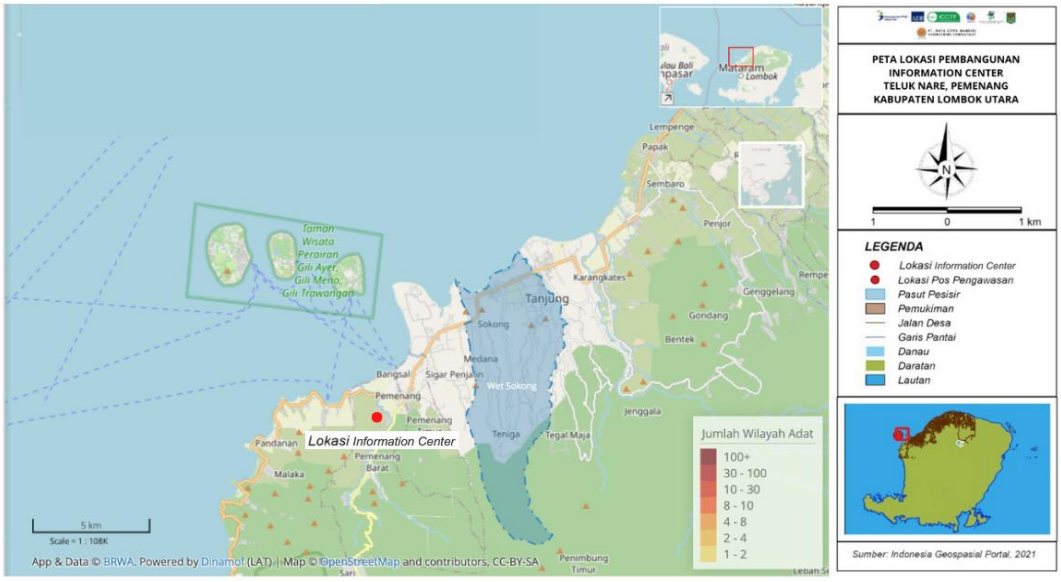
Source: Sucifindo, 2021

c. Location Map of Gili Matra Subproject Surveillance Post



Source: DCM, 2021

Information Center



Source: DCM, 2021

Appendix 1

ADB REA Checklists

Rapid Environmental Assessment (REA) Checklist for Nusa Penida

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES), for endorsement by Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Indonesia / Coral Reef Rehabilitation and Management Program – Coral Triangle Initiative (COREMAP-CTI)

Sector Division: Environment, Natural Resources and Agriculture Division

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site		v	
▪ Legally protected Area (core zone or buffer zone)	**v**		Nusa Penida is marine protected area (MPA) with core zone, fisheries zone, utilization zone and other zone and legalized under Minister of Marine Affairs and Fisheries Decree
▪ Wetland		v	
▪ Mangrove	**v**		Nusa Penida MPA has mangrove area in Lembongan island about 230 hectares.
▪ Estuarine		v	
▪ Special area for protecting biodiversity	**v**		Nusa Penida MPA has coral reef, mangrove and seagrass as well as charismatic species such as sunfish and manta ray

Screening Questions	Yes	No	Remarks
B. Potential Environmental Impacts Will the Project cause…			
▪ impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources?		**v**	
▪ disturbance to precious ecology (e.g. sensitive or protected areas)?		**v**	
▪ alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?		**v**	
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		**v**	
▪ increased air pollution due to project construction and operation?		**v**	
▪ noise and vibration due to project construction or operation?		**v**	
▪ involuntary resettlement of people? (physical displacement and/or economic displacement)		**v**	
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		**v**	
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?		**v**	
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?		**v**	
▪ social conflicts if workers from other regions or countries are hired?		**v**	
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		**v**	
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?	**v**		This project will be implemented during pandemic covid19. There is a risk for worker to be impacted by covid19. As anticipating the project will implement covid19 protocol
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		**v**	
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		**v**	
▪ generation of solid waste and/or hazardous waste?		**v**	
▪ use of chemicals?		**v**	

Screening Questions	Yes	No	Remarks
▪ generation of wastewater during construction or operation?		v	

Rapid Environmental Assessment (REA) Checklist for Gili Balu

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES), for endorsement by Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Indonesia / Coral Reef Rehabilitation and Management Program – Coral Triangle Initiative (COREMAP CTI)

Sector Division: Environment, Natural Resources and Agriculture Division

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site		√	
▪ Legally protected Area (core zone or buffer zone)		√	
▪ Wetland		√	
▪ Mangrove	√		
▪ Estuarine		√	
▪ Special area for protecting biodiversity	√		➢ Mooring buoys infrastructure Located in Gili Balu TPK waters with good ecosystem conditions (base on biophisic monitoring survey) ➢ The tourism information center is located in port complex

Screening Questions	Yes	No	Remarks
C. Potential Environmental Impacts Will the Project cause…			
▪ impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources?		√	
▪ disturbance to precious ecology (e.g. sensitive or protected areas)?	√		Has a potential risk due to placing moring in locations with a Percentage of Coral cover of 2% - 75%
▪ alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?		√	
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		√	
▪ increased air pollution due to project construction and operation?		√	
▪ noise and vibration due to project construction or operation?		√	
▪ involuntary resettlement of people? (physical displacement and/or economic displacement)		√	
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?		√	
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?		√	Based on visual observations, there were no puddles of water that had soaked for more than one day, and according to BPS data in 2021, there were 398 people in Sumbawa Regency who were affected by DHF (non-specific data mentions the number of sufferers in Poto Tano Village)
▪ social conflicts if workers from other regions or countries are hired?		√	
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		√	
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		√	This project will be implemented during pandemic covid19. There is a risk for worker to be impacted by covid19. As anticipating the project will implement covid19 protocol
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		√	

Screening Questions	Yes	No	Remarks
▪ community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		√	
▪ generation of solid waste and/or hazardous waste?		√	
▪ use of chemicals?		√	
▪ generation of wastewater during construction or operation?		√	**Low risk**

Rapid Environmental Assessment (REA) Checklist for Gili Matra

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (SDES), for endorsement by Director, SDES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:	Indonesia / Coral Reef Rehabilitation and Management Program – Coral Triangle Initiative – COREMAP CTI
Sector Division:	Environment, Natural Resources and Agriculture Division

Screening Questions	Yes	No	Remarks
A. Project Siting Is the Project area adjacent to or within any of the following environmentally sensitive areas?			
Cultural heritage site		√	
Legally protected Area (core zone or buffer zone)		√	
Wetland		√	
Mangrove		√	
Estuarine		√	

Screening Questions	Yes	No	Remarks
Special area for protecting biodiversity	√		The development location is a marine protected area based on KEPMEN No. 67 of 2009
Potential Environmental Impacts Will the Project cause…			
impairment of historical/cultural areas; disfiguration of landscape or potential loss/damage to physical cultural resources?		√	There is no cultural and historical area
disturbance to precious ecology (e.g. sensitive or protected areas)?	√		Has a potential risk due to placing moring in locations with a Percentage of Coral cover of 2% - 75%
alteration of surface water hydrology of waterways resulting in increased sediment in streams affected by increased soil erosion at construction site?		√	
deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?		√	
increased air pollution due to project construction and operation?		√	
noise and vibration due to project construction or operation?		√	
involuntary resettlement of people? (physical displacement and/or economic displacement)		√	There is no risk because the location is at sea
disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	
poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?		√	
creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?		√	
social conflicts if workers from other regions or countries are hired?		√	
large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		√	
risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		√	
risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?		√	
community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?		√	
generation of solid waste and/or hazardous waste?		√	

Screening Questions	Yes	No	Remarks
use of chemicals?		√	
generation of wastewater during construction or operation?		√	

APPENDIX 3

Checklist for Preliminary Climate Risk Screening

Nusa Penida

Country/Project Title: Indonesia / Coral Reef Rehabilitation and Management Program – Coral Triangle Initiative

Sector : Natural Resources and Agriculture Division

Subsector: Nusa Penida, MPA Effectiveness Subproject

Division/Department: Marine and Fisheries

Screening Questions		Score	Remarks[5]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	Nusa Penida is small islands that located not too far from the Bali mainland (30 minutes by speedboat). Th islands can be reached and accessible along the year although in the windy or big wave season
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	Mostly the project activity will be implemented in the land, except for sunfish survey. The team also need to check the tide table when ding travel by boat from Nusa Penida to the mainland of Bali island
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	Nusa Penida is dryland with limited rainy capacity. The temperature range is not too extreme between dry and rainy season. So, just need to adjust and consider using construction materials for dry weather.
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	The Nusa Penida islands is dryland with limited capacity of rainy. So just need to choose construction materials for dryland situation for low maintenance of the project. The Nusa Penida located about 30 minutes by speedboat from Bali mainland, so its close and accessible along the year.
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production)	0	No, it will more human resources capacity and annual maintenance to keep the output performance

[5] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Screening Questions		Score	Remarks[5]
	of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?		

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High):___Low__

Other Comments:_____

_____

Prepared by: Darma (Bahtera Nusantara)_____

Gili Balu

Country/Project Title: Indonesia/ Coral Reef Rehabilitation and Management Program Coral Triangle Initiative (COREMAP-CTI)

Sector: Natural Resources and Agriculture Division

Subsector: Gili Balu, MPA Effectiveness Subproject

Division/Department: Marine and Fisheries

Screening Questions		Score	Remarks[6]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	

6 If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Screening Questions		Score	Remarks[6]
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	1	
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High):___Medium__

Other Comments:_____
_____

Prepared by: Rian Febri (PT. CBA)

Gili Matra

Country/Project Title: Indonesia/ Coral Reef Rehabilitation and Management Program Coral Triangle Initiative (COREMAP-CTI)

Sector : Natural Resources and Agriculture Division

Subsector: Gili Matra, MPA Effectiveness Subproject

Division/Department: Marine and Fisheries

Screening Questions		Score	Remarks[7]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High):___Low__

Other Comments:_____
_____

Prepared by: Dewa and Tatas (PT. DCM)

7 If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

APPENDIX 4

Nusa Penida

Letter of utilization of Assets to support Subproject Infrastructure In Nusa Penida, Bali

PEMERINTAH PROVINSI BALI

SEKRETARIAT DAERAH

JALAN BASUKI RAHMAT DENPASAR – BALI (80235), TELEPON (0361) 224671

WEBSITE : www.baliprov.go.id

Denpasar, 13 September 2021

Nomor	:	B.22.523.32/1315/ UPTD.KKPB/Diskelkan
Sifat	:	Biasa
Lampiran	:	-
Hal	:	Persetujuan Pemanfaatan Lahan dan Pengelolaan Aset COREMAP CTI-ADB di Nusa Penida

Kepada

Yth. Kepala Dinas Kelautan dan Perikanan Provinsi Bali

di –

Denpasar

Menindaklanjuti Nota Dinas Saudara Nomor : B.22.523.32/1280 /UPTD.KKPB/Diskelkan tanggal 2 September 2021 hal tersebut diatas pada prinsipnya kami menyetujui pelaksanaan kegiatan tersebut antara lain :

1. Bangunan Pos Pengawasan (1 unit) dibangun pada tanah Aset Pemerintah Provinsi Bali yang tercatat pada Dinas Kelautan dan Perikanan Provinsi Bali yang berlokasi di Desa Batununggul, Kecamatan Nusa Penida, Kabupaten Klungkung;
2. Bangunan *Tracking Mangrove* dan *Bird Watching Tower* (1 paket) dibangun di kawasan hutan mangrove yang terletak di Pulau Ceningan, Nusa Penida dengan berkoordinasi dengan Pemerintah Kabupaten Klungkung.
3. Bangunan Pusat Informasi Wisata (1 unit) dibangun di Kantor KKP Nusa Penida dengan memanfaatkan lahan yang tersedia sesuai peruntukannya;
4. Menerima kapal pengawasan/*speedboat* (1 unit) yang akan dihibahkan kepada Pemprov Bali melalui Dinas Kelautan dan Perikanan Provinsi Bali.
5. Sehubungan dengan 4 point tersebut diatas Saudara segera berkoordinasi dengan instansi terkait.

Demikian disampaikan, atas perhatiannya diucapkan terima kasih.

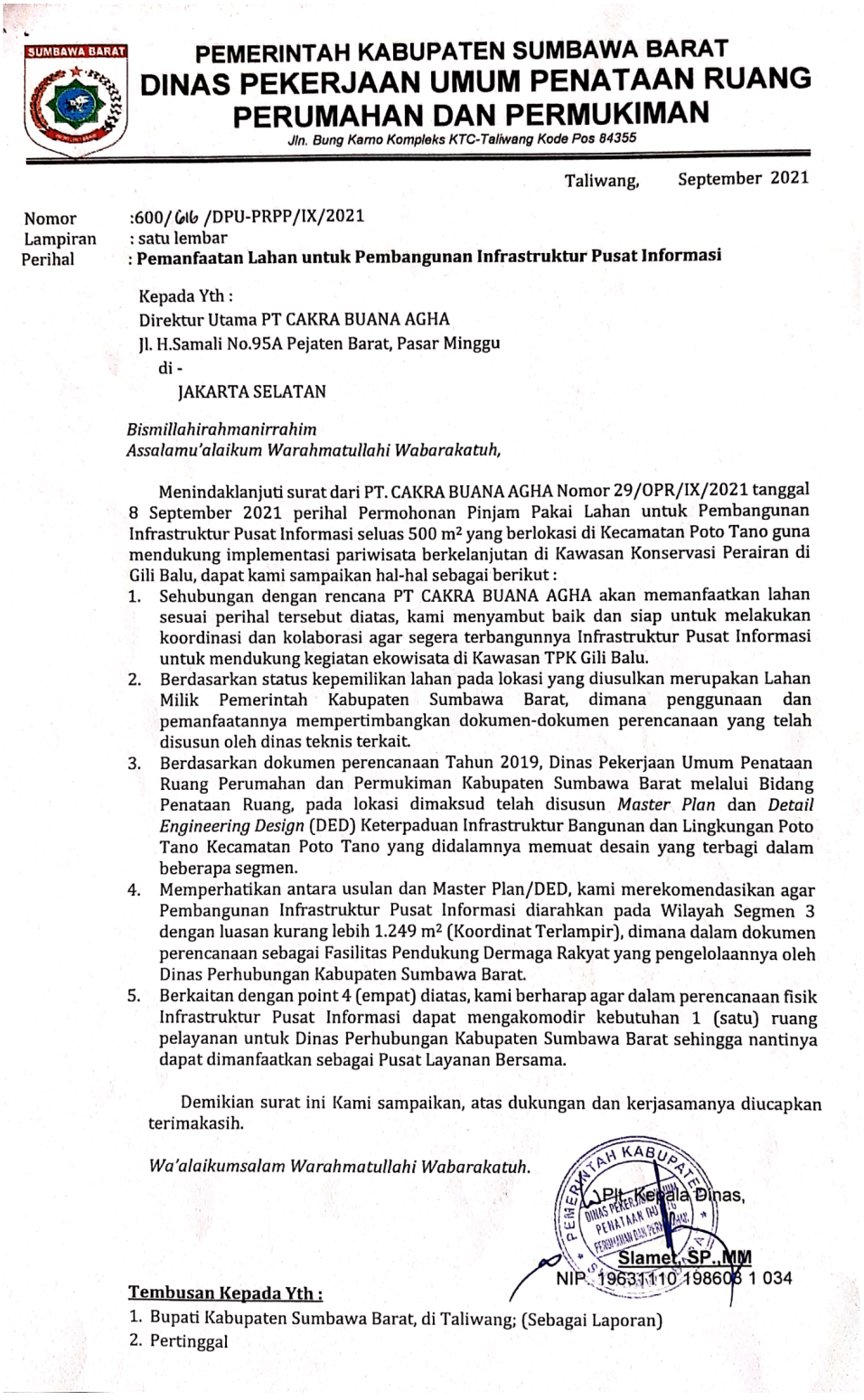
Ditandatangani secara elektronik oleh :
SEKRETARIS DAERAH
Dewa Made Indra
NIP. 19670203 198602 1 004

Tembusan kepada Yth.

1. Gubernur Bali di Denpasar (sebagai laporan);
2. Bupati Klungkung di Semarapura;
3. Kepala BPKAD Provinsi Bali di Denpasar;
4. Kepala BPKAD Klungkung di Semarapura;
5. Direktur Eksekutif CTC;
6. Direktur Utama PT Trans Intra Asia;
7. Arsip.

Gili Balu

Letter of Utilization of land to support subproject infrastructure in Gili Balu, West Nusa Tenggara



PEMERINTAH KABUPATEN SUMBAWA BARAT
DINAS PEKERJAAN UMUM PENATAAN RUANG PERUMAHAN DAN PERMUKIMAN
Jln. Bung Karno Kompleks KTC-Taliwang Kode Pos 84355

Taliwang, September 2021

Nomor :600/ 616 /DPU-PRPP/IX/2021
Lampiran : satu lembar
Perihal : **Pemanfaatan Lahan untuk Pembangunan Infrastruktur Pusat Informasi**

Kepada Yth :
Direktur Utama PT CAKRA BUANA AGHA
Jl. H.Samali No.95A Pejaten Barat, Pasar Minggu
di -
JAKARTA SELATAN

Bismillahirahmanirrahim
Assalamu'alaikum Warahmatullahi Wabarakatuh,

Menindaklanjuti surat dari PT. CAKRA BUANA AGHA Nomor 29/OPR/IX/2021 tanggal 8 September 2021 perihal Permohonan Pinjam Pakai Lahan untuk Pembangunan Infrastruktur Pusat Informasi seluas 500 m² yang berlokasi di Kecamatan Poto Tano guna mendukung implementasi pariwisata berkelanjutan di Kawasan Konservasi Perairan di Gili Balu, dapat kami sampaikan hal-hal sebagai berikut :

1. Sehubungan dengan rencana PT CAKRA BUANA AGHA akan memanfaatkan lahan sesuai perihal tersebut diatas, kami menyambut baik dan siap untuk melakukan koordinasi dan kolaborasi agar segera terbangunnya Infrastruktur Pusat Informasi untuk mendukung kegiatan ekowisata di Kawasan TPK Gili Balu.
2. Berdasarkan status kepemilikan lahan pada lokasi yang diusulkan merupakan Lahan Milik Pemerintah Kabupaten Sumbawa Barat, dimana penggunaan dan pemanfaatannya mempertimbangkan dokumen-dokumen perencanaan yang telah disusun oleh dinas teknis terkait.
3. Berdasarkan dokumen perencanaan Tahun 2019, Dinas Pekerjaan Umum Penataan Ruang Perumahan dan Permukiman Kabupaten Sumbawa Barat melalui Bidang Penataan Ruang, pada lokasi dimaksud telah disusun *Master Plan* dan *Detail Engineering Design* (DED) Keterpaduan Infrastruktur Bangunan dan Lingkungan Poto Tano Kecamatan Poto Tano yang didalamnya memuat desain yang terbagi dalam beberapa segmen.
4. Memperhatikan antara usulan dan Master Plan/DED, kami merekomendasikan agar Pembangunan Infrastruktur Pusat Informasi diarahkan pada Wilayah Segmen 3 dengan luasan kurang lebih 1.249 m² (Koordinat Terlampir), dimana dalam dokumen perencanaan sebagai Fasilitas Pendukung Dermaga Rakyat yang pengelolaannya oleh Dinas Perhubungan Kabupaten Sumbawa Barat.
5. Berkaitan dengan point 4 (empat) diatas, kami berharap agar dalam perencanaan fisik Infrastruktur Pusat Informasi dapat mengakomodir kebutuhan 1 (satu) ruang pelayanan untuk Dinas Perhubungan Kabupaten Sumbawa Barat sehingga nantinya dapat dimanfaatkan sebagai Pusat Layanan Bersama.

Demikian surat ini Kami sampaikan, atas dukungan dan kerjasamanya diucapkan terimakasih.

Wa'alaikumsalam Warahmatullahi Wabarakatuh.

PEMERINTAH KABUPATEN SUMBAWA BARAT
DINAS PEKERJAAN UMUM PENATAAN RUANG PERUMAHAN DAN PERMUKIMAN

Plt. Kepala Dinas,

Slamet, SP.,MM
NIP. 19631110 198608 1 034

Tembusan Kepada Yth :
1. Bupati Kabupaten Sumbawa Barat, di Taliwang; (Sebagai Laporan)
2. Pertinggal

Lampiran : Titik Koordinat

Sudut	Keterangan	X	Y
Utara B	Resparasi 1	-8.529535	116.833263
Utara A	Resparasi 1	-8.529490	116.833458
Selatan A	Resparasi 1	-8.530006	116.833611
Selatan B	Resparasi 1	-8.530084	116.833462

Plt. Kepala Dinas,

Slamet, SP., MM
Pembina Tk. I/IV.b
NIP. 19631110 198603 1 034

PEMERINTAH PROVINSI NUSA TENGGARA BARAT
DINAS LINGKUNGAN HIDUP DAN KEHUTANAN
Jalan Majapahit Nomor 54, Telepon (0370) 633071 Fax. (0370) 633961
MATARAM 83115
Website: www.dislhk.ntbprov.go.id E-mail: dislhk@ntbprov.go.id

Mataram, 22 April 2021

Nomor : 660/ 1400 /PPL-DISLHK/ 2021
Sifat : Biasa
Lampiran : -
Hal : Arahan Penyusunan Dokumen Lingkungan

Yth. Project Coordinator Coral Triangle Initiative Project GP 6

di –
Tempat

Bismillaahirrahmaanirrahiim.

Assalamu'alaikum warahmatullahi wabarakaatuh

Menanggapi Surat Saudara Nomor : 02/GB#6-III/2021 tanggal 23 Maret 2021 Perihal Arahan Jenis Pedoman Dokumen Lingkungan Hidup, bersama ini disampaikan hal - hal sebagai berikut :

1. Coral Reef rehabilitation and management program – coral triangle initiative project GP 6 berencana untuk melakukan kegiatan Pembangunan Menara Pemantau sehubungan telah dimulainya Pekerjaan GP-6 *Support for Ecosystem-Based Resource Management Plans and Sustainable Marine-Based Livelihoods Gili Balu Coral Reef Rehabilitation and Management Program – Coral Triangle Initiative Grant No.* 0379 (Ef)-INO, yang berlokasi di Gili Balu Kecamata Poto Tanu, Kabupaten Sumbawa Barat Nusa Tenggara Barat. Menara pemantau akan dibangun dengan dimensi 3 m x 3 m x 14,3 m. Berdasarkan hasil tumpang susun dengan peta kawasan hutan diketahui bahwa lokasi kegiatan berada di dalam kawasan hutan produksi.
2. Terkait dengan informasi di atas, peraturan perundang – undangan yang berlaku yakni:
   a. Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.38 Tahun 2019 tentang Jenis Rencana Usaha dan/atau Kegiatan yang Wajib Memiliki Analisis Mengenai Dampak Lingkungan Hidup Pasal 3 ayat (3) menyatakan bahwa pembangunan bangunan gedung dengan luas lahan ≥ 5 Ha atau luas bangunan ≥ 10.000 m^2 wajib memiliki Amdal.

b. Sesuai dengan Surat Edaran Kepala Dinas Lingkungan Hidup dan Kehutanan Provinsi Nusa Tenggara Barat Nomor : 660/1336.1/PPL-DISLHK/2020 tanggal 29 Juni 2020 tentang Kewenangan Penilaian Dokumen Amdal atau UKL-UPL untuk Rencana Usaha dan/atau Kegiatan yang berlokasi di Wilayah Laut dan Wilayah Hutan menyatakan bahwa semua jenis rencana usaha dan/atau kegiatan yang berlokasi di kawasan hutan menjadi kewenangan Gubernur yang penilaian Amdalnya dilakukan oleh Komisi Penilai Amdal (KPA) Provinsi atau Pemeriksaan UKL-UPLnya dilakukan oleh Instansi Lingkungan Hidup Provinsi.

3. Menjawab surat saudara dan dengan memperhatikan peraturan perundang - undangan sebagaimana yang tercantum pada angka 2 (dua) di atas, maka disampaikan bahwa Coral Triangle Initiative wajib untuk melengkapi usaha dan/atau kegiatannya dengan formulir UKL-UPL dan kewenangan pemeriksaannya berada di Dinas Lingkungan Hidup dan Kehutanan Provinsi Nusa Tenggara Barat

Demikian kami sampaikan untuk maklum atas perhatian dan kerjasamanya diucapkan terimakasih.

Wassalamu'alaikum warahmatullahi wabarakaatuh

Kepala Dinas Lingkungan Hidup dan Kehutanan
Provinsi Nusa Tenggara Barat

Ir. Madani Mukarom, B.Sc.F., M.Si
Pembina Utama Muda
NIP.196304051989031019

Gili Matra

Letter of Utilization of Assets to support subproject infrastructure in Gili Matra, West Nusa tenggara

PEMERINTAH KABUPATEN LOMBOK UTARA

SEKRETARIAT DAERAH

Jl. Tioq Tata Tunaq - Kecamatan Tanjung ☎ (0370) 6147504
Email : setda_klu@yahoo.com Kode Pos.83352

Tanjung, 24 Januari 2022 M
Jumadil Akhir 1443 H

Nomor : 030 / 56 /BKAD/2022
Lampiran : 1 (satu) lembar
Perihal : Persetujuan Penggunaan Lahan Untuk Pembangunan Pusat/Pondok Informasi

Kepada
Yth : Direktur Utama
PT. Duta Cipta Mandiri
Engineering Consultant
(DCM)
di.-
Tempat

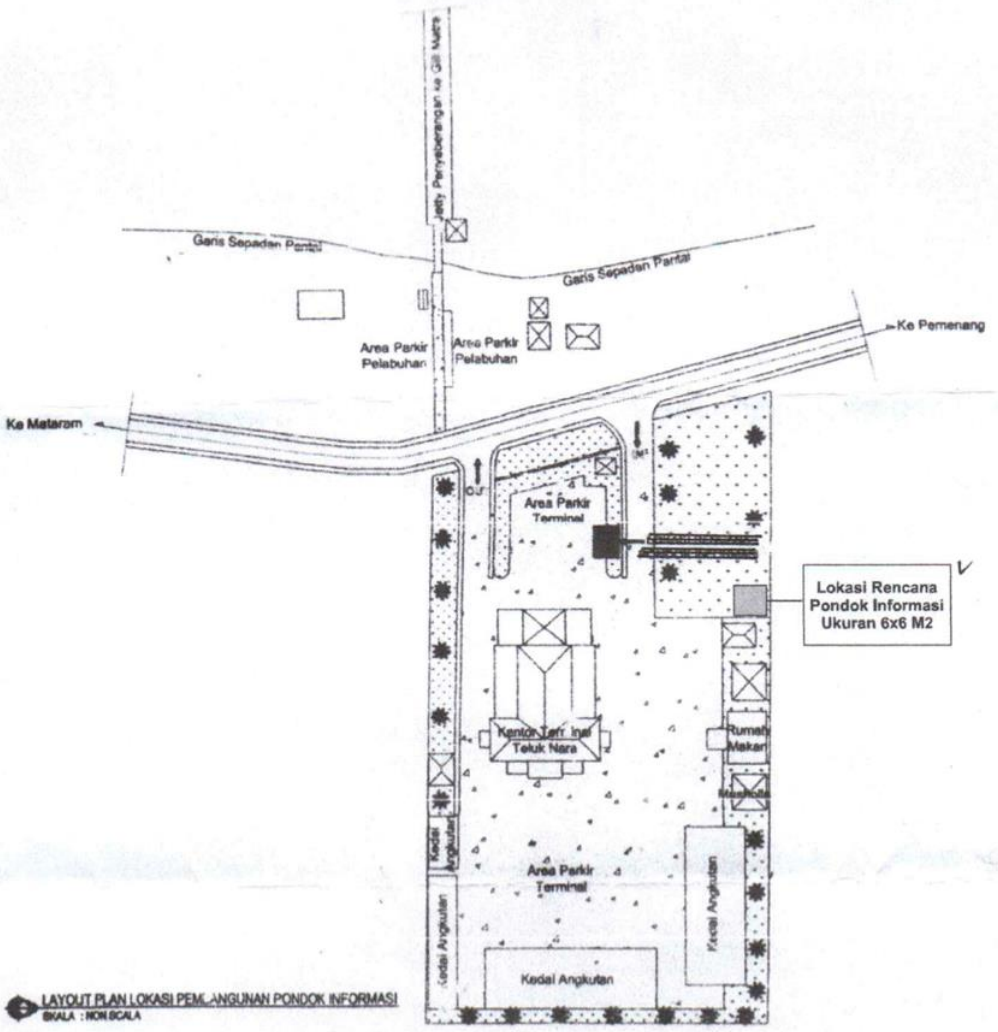
Menunjuk surat Saudara Nomor : 78/ADM/XII/2021 tanggal 20 Desember 2021 perihal Permohonan Lahan untuk Pembangunan Pusat/Pondok Informasi, dengan surat ini disampaikan bahwa permohonan tersebut dapat disetujui di atas tanah milik Pemerintah Kabupaten Lombok Utara (Terminal Pelabuhan Teluk Nara) dengan ukuran 6 x 6 m² (sket lokasi terlampir)

Demikian untuk maklum atas perhatiannya disampaikan terima kasih.

A.n. BUPATI LOMBOK UTARA
Penjabat Sekretaris Daerah,

ANDING DUWI WAHYADI, S.STP., M.M
Pembina Tk. I, (IV/b)
NIP. 19771112 199711 1 001

Tembusan disampaikan kepada Yth :
1. Kepala BKAD Kabupaten Lombok Utara di Tanjung;
2. Inspektur Kabupaten Lombok Utara di Tanjung;
3. Kepala Bagian Hukum Setda KLU di Tanjung;
4. Dinas Perhubungan Kabupaten Lombok Utara di Tanjung;
5. Dinas Pariwisata Kabupaten Lombok Utara di Tanjung; dan
6. Pertinggal.



LAYOUT PLAN LOKASI PEMBANGUNAN PONDOK INFORMASI
SKALA : NON SCALA

A.n. BUPATI LOMBOK UTARA
Penjabat Sekretaris Daerah,

PEMERINTAH KABUPATEN LOMBOK UTARA SETDA

ANDHIKA DUWI CAHYADI, S.STP., M.M
Pembina Tk. I, (IV/b)
NIP. 19771112 199711 1 001

APPENDIX 5

Grievance Redress Mechanism (GRM) Form

Grievance Redress Mechanism (GRM) form

COMMUNITY COMPLAINTS FORM	
	Date:
Name	……..……..
NIK / ID	……..……..
Location	……..……
Phone Number	……
Note:	
Follow Up:	

(Signature)

APPENDIX 6

Sample of Minute of Meeting of Public Consultation

GILI BALU
COREMAP GP3 ECO-TOURISM INFRASTRUCTURE DEVELOPMENT COORDINATION MEETINGS

Thursday, August 12, 2021

Day, Date	:	Thursday, August 12, 2021
Time	:	09.00 – finish
Place	:	Hotel Grand Royal Taliwang, Taliwang, Kabupaten Sumbawa Barat

Participant :

1. Staf Ahli Ekonomi Sekertaris Daerah KSB
2. Cabang Dinas Kelautan Dan Perikanan NTB
3. Bagian Litbang BAPPEDALITBANG KSB
4. Dinas Lingkungan Hidup KSB
5. Dinas Perencanaan Umum, Penataan Ruang, Perumahan Dan Permukiman KSB
6. Kepala Dinas Pariwisata Pemuda Dan Olah Raga KSB
7. Dinas Penanaman Modal Dan Pelayanan Perijinan Terpadu KSB
8. Kepala Bidang Pemasaran DISPARPORA KSB
9. Kepala Bidang Destinasi DISPARPORA KSB
10. Kepala Bidang Pengkajian Dan Pemantauan Lingkungan DLH KSB
11. Polsus Perikanan Poto Tano
12. Pokdarwis Sekitar Kawasan Gili Balu
13. Perwakilan Boat Wisata Gili Balu

A. AGENDA:

This activity is a Conformity coordination activity

B. DISCUSSION

1. Welcome and Opening Event (Sekda of West Sumbawa Regency represented by Assistant I: Hirawansyah Atta, SH. MH.)

- The West Sumbawa Regency Government welcomes the COREMAP GP 3 activity because it involves multi-stakeholders as well as the central government's attention to development, especially tourism in Gili Balu.
- The basic problem from a policy perspective is the location of Gili Balu which is a small island and the marine sector, so that the multi-stakeholders involved must be able to synergize
- The beauty and tourist attraction on Gili Balu must also be enjoyed by our children and grandchildren, so that they can be managed sustainably

2. GP3 Coordinator (Febrian Kusuma Atma Negara)

- GP3 Program Presentation
- Presentation of the Infrastructure Development Plan (Mooring buoys, Ecotourism infrastructure center and Conservation Area infrastructure center in GP3)

- Explanation of the mechanism for providing community suggestions and input on GP3 activities

3. Bappeda Litbang (Hermansyah – Kabid Fisik)

- The location that has been planned regarding the suitability of the spatial layout should be discussed more deeply with the TKPRD.
- The existence of a job creation law must also be considered so that it can be adjusted in the future
- There are PT NOP and PT ESL which are managers in Gili Balu, so deep coordination is needed with the two managers
- this area already has a management plan and it has been planned in detail related to the development of ecotourism infrastructure and is connected to what has been contained in the plans made by the PU service.
- Detailed planning has also been made by the two investors above, so there should be no overlap in management or activities, especially physical activities

4. Koordinator GP3 (Febrian Kusuma Atma Negara)

- In accordance with the background and objectives of COREMAP, GP 3 ensures that in the process it is not in management but only supports in supporting infrastructure for ecotourism in Gili Balu
- The position of the Infrastructure development plan was directly appointed by Bappeda on the grounds that there was already a master plan and it was also close to the crossing pier for tourists visiting the islands in Gili Balu and the land is the land of the district government

5. Bidang Aset (Heri)

- After the COREMAP project is completed, will the Ecotourism Infrastructure Building be handed over to the district or provincial government or other parties such as villages?
- There needs to be a recommendation from the KSB TPKRD to be in sync with other developments because there is already a detailed plan for the use of the land.
- The steps to obtain the recommendation that must be carried out from the start are submitting an official letter addressed to the Regent of KSB to convey the aims and objectives as well as the treatment of detailed buildings including their use.
- If the building is handed over to the KSB district government, the asset sector asks for the value of the building as the basis for recording the building.

6. Koordinator GP3 (Febrian Kusuma Atma Negara)

- Bappenas recommends that assets or buildings built for tourism activities be handed over to the local government
- The mooring buoy construction status has reached UKL UPL at the provincial DLHK because it is in a conservation area so the coordination is with the Provincial DLHK

7. Dinas Lingkungan Hidup (Sri Sulastri)

- The permit document for ecotourism infrastructure development at the Environmental Service in West Sumbawa district only uses UKL UPL or even SPPL because the size of the building is not too big, the most important thing is the building specifications.

8. Dinas Pekerjaan Umum (Novrizal)

- Because in the location around the ecotourism infrastructure development plan there is already a detailed engineering design, so it should be adjusted to the DED that has been made. And please contact the PU department well in advance so that the DED can be prepared and the details adjusted accordingly.
- There needs to be further coordination between GPs so that the buildings do not overlap with existing regulations and are not duplicated and the coordination is better. And these buildings must be integrated with regional needs so that it will not be in vain if the project is completed
- Investors who have obtained permission to be given an explanation and included in the planning of development, both physical and human resources.
- If possible the building must reflect local wisdom and involve local communities in its construction so that local community involvement must exist from the start

9. Dinas Pariwisata (Ahmad Hidayat)

- Tourism development cannot be separated from tourism MSMEs, so the hope in the future is to be able to make tourism package initiatives which also consist of Tourism MSMEs
- fully integrated travel tour packages because we (Tourism Office) have also collaborated with the travel business industry players to develop a framework for tour packages
- need a place to promote SMEs, for example by juxtaposing it with the TIC to be built
- Currently there is a need for continuous follow-up guidance and provide competency standards for tourism actors or local communities through trainings.
- Gili balu tourism promotion efforts through tour packages and IT must be increased, especially for foreign tourists
- Standardization of transportation, from price to quality so that the price is one and there is no conflict in the community
- MSMEs and other tourism industries must coexist
- Building a harmonious destination governance

10. Dinas Pariwisata (Riyan)

- Propose to make floating framework of ornamental fish for maintenance and supervision as well as a tourist attraction
- A monitoring tower is needed which is not only for marine conservation but also for the safety of visitors (Baywatch)
- Who are the HR that will fill the TIC and how are they recruited and prepared?

11. Koordinator GP3 (Febrian Kusuma Atma Negara)

- The monitoring tower will be built by GP 6 (Sucovindo) especially for marine safety and conservation.
- The human resources who will fill in the TIC and operate it are community groups (Pokdarwis) if possible or submitted to the KSB Regional Government (Tourism Office) which is important to be in the right management position in the future.
- Various forms of community capacity building related to tourism, especially Pokdarwis, will be carried out in this project in the form of trainings.
- Specifically to support marine tourism, GP 3 will support Pokdarwis by holding diving certification and providing boatman certification.

12. Team Ahli Ekowisata (Putrawan Habibi)

- GP 3 together with STP Mataram will conduct a Sapta Pesona survey, a 3A survey (amenities, attractions and accessibility), community readiness/modality and tourism human resources, this survey will be in conjunction with a survey of environmental carrying capacity for tourism in September which will be mitigated through a workshop scenario sustainable tourism
- The ecotourism expert team will map out what types of training can support human resources in managing tourist destinations, as well as train managers who will receive or fill out ecotourism infrastructure.
- Guidance for MSMEs in the Gili balu area integrated with markets and tourists in order to increase prices and by seeking Joint Ventures with investors
- Standardization related to the price of tourist boats and transportation will be carried out by ATP WTP research first and of course it will be adjusted to the applicable regulations so as not to be referred to as illegal levies

DOCUMENTATION

Documentation coordination meeting tourist information center development

Documentation coordination meeting tourist information center development (2)

Documentation coordination meeting tourist information center development (3)

Documentation coordination meeting tourist information center development (4)

Documentation coordination meeting tourist information center development (5)

Documentation coordination meeting tourist information center development (6)

Documentation coordination meeting tourist information center development (7)

EVENT MINUTES
COORDINATION OF SUITABILITY OF INFRASTRUCTURE PARK ISLAND GILI BALU SMALL ISLAND: DETERMINATION OF LAND LOCATION INFRASTRUCTURE COREMAP-CTI GP3 ECO-TOURISM INFORMATION CENTER
Thursday, September 23, 2021

Date	Sept, 23 2021
Time	09.00 – Finish WITA
Place	Hotel IFA, Taliwang KSB
Participant	Attendance List Attacted

C. Participant

1. Team Consultant COREMAP-CTI GP3
2. Head of Dinas Pariwisata, Pemuda dan Olahraga KSB
3. Staff Dinas Pariwisata, Pemuda dan Olahraga KSB
4. Dinas Perhubungan KSB
5. Dinas Lingkungan Hidup KSB
6. Dinas Pekerjaan Umum, Penataaan Ruang, Perumahan dan Pemukiman (PUPRPP) KSB
7. Badan Pengelolaan Aset Daerah
8. Dinas Perizinan KSB
9. Head of village Poto Tano
10. Site Coordinator ICCTF

D. Agenda:

The Coordination Meeting for Determining the Location of Gili Balu Ecotourism Infrastructure is as follows :

- Giving a speech and opening a coordination event by the Head of the Regency Tourism Office. West Sumbawa
- Presentation of the Gili Balu Ecotourism Infrastructure plan by the Project Coordinator.
- Discussion related to the presentation that has been conveyed

E. Diskusi

Kepala Dinas Pariwisata, Pemuda dan Olahraga KSB

Welcoming and Opening Coordination Activities

Koordinator GP3 (Febrian Kusuma Atma Negara)

Presentation of the Ecotourism Information Center (EIC) Infrastructure Location plan

Kepala Dinas Pariwisata, Pemuda dan Olahraga KSB

- Prior to construction, the management and utilization system should be considered
- In the use of the building so that it becomes an educational use for students and the community and as a place for delivering attractions that can be shown in the Gili Balu area to attract tourists

Dinas Perhubungan KSB

Making a waiting room on the outside of the building

Dinas Lingkungan Hidup KSB

Aesthetics of development to be considered as an added value in terms of shape

Dinas PUPRPP KSB

The planned location point already has a DED from the Public Works Department (PU)

CONCLUSION

The conclusion of the Coordination of Suitability of the Gili Balu Small Island Park Infrastructure Space is:

- The location or land for infrastructure development has received a land use letter from PUPR
- The building will be handed over to the Regent for further submission to the competent SKPD.

EVENT MINUTES
COORDINATION MEETING ON COMPATIBILITY OF THE MOORING BUOYS GILI BALU
Wednesday, September 22, 2021

Date	September, 22 2021
Time	09.00 – Finish WITA
Place	Hotel Aston Inn Mataram

F. Participant

- Tim Konsultan COREMAP-CTI GP3
- Kepala Cabang Dinas Kelautan Sumbawa-Sumbawa Barat
- Kepala Seksi Pengawasan CDK Sumbawa-Sumbawa Barat
- Kepala Seksi TU Sumbawa-Sumbawa Barat
- Kepala Seksi Pemberdayaan dan Konservasi Pesisir dan Pulau-Pulau Kecil, DKP
- Staff Seksi Pemberdayaan dan Konservasi Pesisir dan Pulau-Pulau Kecil, DKP
- Staff Seksi Perizinan Ruang Laut DKP NTB
- Staff Seksi Pengawasan DKP NTB
- WCS
- Konsepsi NTB
- WCS
- Site Koordinator ICCTF

G. Agenda:

The agenda for the Coordination of Spatial Conformity for the Gili Balu mooring buoys is as follows:

- Determining the suitability of the Planned Space for the Mooring Buys location in accordance with the RZWP3K and RPZ .

H. Discussion

Head of Dinas Kelautan Sumbawa-Sumbawa Barat

Welcoming and Opening Coordination Activities

Koordinator GP3 (Febrian Kusuma Atma Negara)

- Presentation of the mooring buoys building point plan
- The practice of using Anchor which is still prone to damage coral reefs

Head of Dinas Kelautan Sumbawa-Sumbawa Barat

- Involving the surrounding community in making mooring buys and being guided by a Team of Experts
- Socialization to the community regarding the making of mooring buoys must be carried out
- One mooring buys must be able to tie more than one boat

WCS

- It is recommended that points near the core zone be eliminated because they are prone to being used for tourism and later tourists will violate various prohibited activities in the core zone
- Mooring installation must take into account the Gili Balu TPK zoning management plan

Head of section Pemberdayaan dan Konservasi Pesisir dan Pulau-Pulau Kecil, DKP

- The use of colors on the buoy must be in accordance with each specification
- Installation of mooring buys must not be in the core zone (minimum 500 meters from the core zone)
- There should be a report from the community or a letter of approval from the community regarding the construction of mooring buys

Head of CDK Supervision Section for Sumbawa-West Sumbawa

- In making mooring buoys, it is best to involve the community in the four coastal villages of Gili Balu

Section Staff of Perizinan Ruang Laut

- Zoning in RZWP3K and RPZ the planned point of Mooring Buoys is already in the right zoning and is allowed to carry out construction
- Must prepare a marine space suitability permit accompanied by supporting data

Expert staff of GP3 (Ibnus Sabil)

- Mooring plan points are appropriate especially at points close to the core Zone. Because at that point it can be the location of the area's core zoning markers.
- Violations can be reduced if there is an awareness mechanism for the community, tourist boat owners and fishermen.

CONCLUTION

The conclusion of the Space Suitability Coordination activity for the Gili Balu mooring buoys location is

- All points are in accordance with RZWP3K and RPZ marine space allocation
- To fulfill the licensing requirements for the use of marine space, an approval document or confirmation of the KKPRL will be made
- Public consultation with the community by making news events
- Mooring buoys must comply with applicable specifications and regulations

FGD Minutes of Information Board Development Plans, Information Boards, Boundary Signage and Sign Flags (DED) with Related Agencies, Village Governments and Service Partners to Support the Management of Gili Matra National Marine Protected Areas

On Wednesday, December 1, Year Two Thousand Rua Twenty One, at Gaya Gallery,

Pemenang, North Lombok Regency. In the context of the FGD on the Plan for the Development of Information Boards, Information Boards, Boundary Signage and Sign Flags (DED) which was attended by the Coordinator of the BKKPN for the Gili Matra working area, Assistant II of the Secretary of the North Lombok Regency and Representatives of the Head of the North Lombok Regency Tourism Office.
Agree on the following:

1. The information lodge building originally planned in Bangsal was moved to Teluk Nare Harbor Terminal for reasons of land ownership.
2. The Information Board will be integrated with the VMS information board
3. The location of the information lodge coordinates was determined through a coordination meeting between the GP2 team and the North Lombok TKPRD team, together with the Assistant II Secretary of the North Lombok Regency.
4. The coordination meeting is planned to be held on a date that will be determined later based on the direction of the Assistant II Secretary of the North Lombok Regency
5. The location of the coordination meeting as mentioned in No.4 will be held in the room of Mr. Assistant II of the Regional Secretary of North Lombok Regency

Furthermore, to realize the information center building, funding is sourced from the Coral Reef Rehabilitation and Management Program - Coral Triangle initiative Grand No. 0379 (EF)-INO (COREMAP GP2) is stated in the annual workplan GP2 output 9: “Building Information Boards and other related infrastructure, information boards and boundary signs, and to harmonize decentralization through Law Number 23 of 2014 to improve MPA management, facilitated by Expert Team (Project Coordinator and DED Specialist
Thus the minutes of activities are made to be used and followed up as appropriate.

DAFTAR HADIR

KEGIATAN: Pertemuan FGD tentang rencana pembangunan Pusat informasi, papan informasi, Boundary Signage dan Sign Flag dengan Instansi terkait dan Pemerintah desa dan mitra dinas

Hari/Tanggal : Selasa, 1 Desember 2021
Tempat : Gedung Pertemuan Gili Gaya Galeri Pemenang Lombok Utara

No	Nama	Jenis Kelamin*		Instansi	Jabatan	No. Telepon	Email	Paraf
		P	L					
1	I Wy. Subrata/wsd.		L	Kabid Disbud	Kabid	081917626309		
2	Fadli		L	Dinas Pariwisata	Kasi	082339422435		
3	MULUdin			KAB		081939477060		
4	Asmaat		L	Kantor Desa	Kades pabar	082359 317633		
5	Hafid		L	Bidang Pemasaran	Kasi Pemasaran Pariwisata	085237 893458		
6	Hepy yuliaty	✓		~~Bidang E~~ Dinas Pariwisata	Kepala Seksi	081736 9769		
7	M. Maulana		✓	pokdarwis	Sekertaris	082 340 745458		
8	Bayu H. cumbara		✓	Tour Guide	W. ketua.	082339908665		
9	ASHARI FEBRIANTO		✓	Tour Guide	Ketua	082342362669		

*Ceklis salah satu (wajib diisi)

No	Nama	Jenis Kelamin*		Instansi	Jabatan	No. Telepon	Email	Paraf
		P	L					
10	A. Zakir		L	Pokdarwis Bangsal A	ketua	082339 047565	5. zakir@yahoo.com	
11	Marhamma	✓		Tuk Gili Matra	Pelp muda	082147101238		
12	Supardi		L	TKBM	Ketua	085237272816	supardi.ouk@yahoo.co.id	
13	Agus Cahya		L	ICMI	SC	0877 6007 1109		
14	M. DO'AM		L	BPD	KEPALA	085933616314		
15	Lalu. Adhyatma		✓	BKKPM-NTB GM	koordinator	0878X3574911		
16	Eko Setio P		L	BKKPN	Staf	081804231572		
17	Muh. Al. Husaini		L	—11—	—11—	085237554551		
18	M. yazri		L	—11—	—11—	085337606099		
19	Niramaya	✓		BKKPN	Analis	085726065156		
20	Gita Lestari	✓		BKKPN	Staf.	081581858151		
21	Sulaeman	.	✓	PT. DCM	TA			

*Ceklis salah satu (wajib diisi)

No	Nama	Jenis Kelamin*		Instansi	Jabatan	No. Telepon	Email	Paraf
		P	L					
22	M. Faizan		✓	PT. DCM				
23	MOH MARIADI		✓	PT. DCM	TA DED			
24	Tommy		✓	PT. DCM	EDC			
25	M. Soimin		✓	PT. DCM	MST			
26	Ahmad Purwoto		✓	PT. DCM	FAO			
27	DANI HAMI		✓	Kades	Kepala Desa			
28	KURNIAWAN		✓					
29	Jumawardi		✓					
30	Hamzah		✓	Pendr	Smg	082178178707		

*Ceklis salah satu (wajib diisi)

Discussion on Agreement and Designation of Land for Monitoring Post Development at TWP Gili Matra

Day: Wednesday, January 12, 2022
Place: at Gili Gaya Gallery, Pemenang, North Lombok Regency
Agenda: Agreement and Appointment of Land for Construction of Monitoring Posts at Gili Matra TWP

Participant
Regional Spatial Planning Coordination Team

GP5 conveys about ADB GP5 COREMAP CTI Project on Gili Matra
Management Stakeholder Proposal
Proposed Location: In KSPN Land

Supervision Post Design at TWP Gili Matra
Mr. Assisten II:

- With regard to development we must consider not blocking the view
- Utilization can be for all of us
- Hope it can be used as an immigration service
- Whatever the option, today's activity is to realize this development step
- We hope it can be built on three dyke because the core zone is on each Gili
- We are collaborating this place as a supervisory building for us and we are still thinking who will manage this building
- The building will be used by the Pokmaswas but we have to look at the administrative legality of the Pokmaswas
- Why without a tower because the function of the tower can already be replaced with technology
- The building is not expected to use a roof but a flat
- Avoiding corrosion so that there are no protests from the district regarding beach conditions
- Building materials of PVC
- Assuming 3 buildings on each Gili because the tower has been reduced, it's up to you later the size of the building can be reduced
- The building was handed over to the local government and its use in Pokmaswas but needs to be studied further

Head of Development Assets - Nur Asmaun Gunadi

Can't get a broad picture, location and legal status?
Mr.Tatas answer:
The building area is 45 m2 and there is 1 terrace of land needed half acre or 50m2

Regarding the legal status: it is better to determine now, the location of the proposal from the local government
Gunadi: Based on the existing data, we have limited land in three 3. Land The local government does not own land on the coast. One way out is to use state land or a beach equivalent. Land commensurate with the coast has been carried out with KSPN using land commensurate with the coast, the legal status of this land will be taken care of after there is a building. Formally it can be certified after there is a building. Not all bus buildings are certified, uu. No2 2012 is limited to public interest. Among other things, sports facilities for the public, public facilities, supervision and security, we can take care of the certificate.

Mr.Tatas: for the National Development Planning Agency itself, the target is one building, and in Gili Matra there is only one Pokmaswas to form 3 posts with a less than good number of Pokmaswas. Its management by the local government means that Bappenas thinks it will be difficult to maintain. We don't just build infrastructure, but also equipment.

Kadus Gili Meno: The location is in the core zone in the south, specifically for the core zone on Gili Trawangan. Meanwhile, violations often occur in the north of the three dyke. If you want to land a boat there, you can't go there after patrolling because in front of it is a surfing spot, I think it's not strategic enough for the three dyke. But strategic only for Gili Trawangan. I think it's more effective on three dyke. In the three dyke the violations are different. The dominant violation is on Gili Meno. even more strategically built in the core zone of Gili Air

Gunadi: Gili Meno has Pokmaswas
Kadus Meno: Not yet, but other community groups are indirectly involved
If I look at the potential for the Gili Meno core zone, violations often occur

Kadus Meno: It's still possible, because on Gili Meno there is also land commensurate with the beach
Kadus Gili Air: if the land belonging to the provincial government is in the east, if for example there is a budget it can be built on Gili Air. Apart from that, what we need is a monitoring boat. Because the offense is at sea. What doesn't exist yet is a monitoring boat.
Gunadi: Is there a Pokmaswas on Gili Air?
Kadus Gili Air: Nothing, but if there is a group monitoring activity on Gili air, it will also build it
Mr.Tatas: There is one official Pokmaswas in Gili Matra. In the future, we plan to facilitate this pokmaswas member from three dyke. Based on coordination with the Provincial DKP, only one Pokmaswas will be facilitated by this project
PSDKP (SEPTIONO):
Mr.Drajat: TWP Gili Matra, for monitoring posts with changes in DED, posts can be made in each Gili. However, we can see that the current condition can only be one, we can move in the middle. The results of monitoring violations are dominant in the west. The monitoring post can be taken in the middle. For boat facilities, it is very helpful for us to be monitored. So that when there are activities that require a quick response, this can be taken into consideration. Of course with consideration of regulations that use the existing land.

Assisten II: The problem of operational management, boats, people, and equipment must be clear who takes care of them.

Mrs.Eva: from all the suggestions wherever the three Gilis have become strategic areas. Accompanied by Pokmaswas members of three Gili.

The actual building was built with supporting facilities. For example, already in the implementation, we have to know the operational financing. Beppeda is ready to accommodate whatever is needed from this building
Head of Development – Mr. Atmaja
Input:

- Who are we to facilitate in pre-development
- We immediately decided there was a tower or just a building. Should be considered in the framework of building construction.
- If you are looking for the middle, you can go to the menu. But have to see the opinion of the consultant. Just decided. The package does not see where the location is, but the intention is the same to maintain sustainable conservation. Just make sure by Mr Assistant

Assisten: Utilizing it together, all stakeholders can take advantage of the building.

- The Supervisory Post was decided to be built in Gili Trawangan, the trend is in the KSPN Area
- Regarding the legal status that will be owned by the Regional Government and the Central Government (PSDKP), the important thing is that it does not fall to the group
- Because regarding the supervision of irrigation, it is closer to the task of the KKP
- The legal status if it is owned by the state, there is no element of state loss
- I tend to think that the legal status of these goods and buildings will be owned by an agency closer to marine supervision
- After the construction is given to DKP or PSDKP
- Support from the local government, whoever manages the development the local government will facilitate the required documents
- The local government states that it is willing to accept the monitoring post infrastructure that will be built
- The location for the construction of the supervisory post building was decided to be carried out in Gili Trawangan, precisely in the KSPN area

- Building design does not use tall buildings (without towers)
- Because they do not know the actual point, further surveys related to the location need to be carried out. Therefore it is necessary to coordinate with the Village Head or Dusun Head
- Coremap provides information regarding legal status to BAPPENAS whether the building can be managed by PSDKP
- Coordinate with Bappenas three locations for the construction of Monitoring Posts, namely Gili Meno and Gili Air