Initial Environmental Examination:

Subproject: Enhancing Management Effectiveness, Gili Balu, West Nusa Tenggara, Indonesia

Document Stage: - Draft for review

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INO: CORAL REEF REHABILITATION AND MANAGEMENT- CORAL TRIANGLE INITIATIVE (COREMAP-CTI) PROJECT

Indonesia: Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (INO- COREMAP-CTI) – Gili Balu

Initial Environmental Examination

Kementerian PPN/ Bappenas

ICCTF Indonesia Climate Change Trust Fund

ADB

CURRENCY EQUIVALENTS
(as of 1 January 2022)

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

Abbreviations

ADB	-	Asian Development Bank
AMDAL	-	*Analisis Mengenai Dampak Lingkungan Hidup* or Indonesian EnvironmentalImpact Assessment system
ANDAL	-	Analisis Dampak Lingkungan or Environmental Impact Assessment
AP	-	Affected People
BAPEDAL	-	Environmental Impact Control Agency *(Badan Pengendalian Dampak Lingkungan)*
BAPEDALDA	-	Local Environmental Impact Control Agency (*Badan Pengendalian DampakLingkungan Daerah*)
BAPPENAS	-	National Development Planning Agency (*Badan Perencanaan Pembangunan Nasional)*
BKKPN	-	National Marine Conservation Center (BKKPN) of Kupang
BPLHD	-	Local Environmental Management Agency (*Badan Pengelolaan LingkunganHidup Daerah*)
Bupati	-	District Mayor
CBA	-	Cakra Buana Aghna (Project Implementation Partner)
COREMAP	-	Coral Reef Rehabilitation and Management Program
CTI	-	Coral Triangle Initiative
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
ICCTF	-	Indonesia Climate Change Trust Fund
IDR	-	Indonesian Rupiah
MMAF	-	Ministry of Marine Affairs and Fisheries (*Kementarian Kelautan dan Perikanan or KKP)*

MoU	-	Memorandum of Understanding
MPA	-	Marine Protected Area (*Kawasan Konservasi Perairan)*
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
SUCOFINDO	-	Project Implementation Partner
UKL	-	Environmental Management Plan (UKL)
UPL	-	Environmental Monitoring Plan (UPL)
UPT	-	Technical Implementing Unit
USD	-	United States Dollar

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EXECUTIVE SUMMARY

1. **The Coral Reef Rehabilitation and Management Program Coral Triangle Initiative (COREMAP CTI)** is funded by Asian Development Bank (ADB) consists of three marine protected areas (MPA) in Lesser Sunda seascape, Nusa Penida, Bali Province and Gili Matra and Gili Balu in West Nusa Tenggara (NTB) provinces.

2. **Scope of impacts**. Initial Environmental Examination and impact of the subproject on the land, biodiversity, water and air was assessed in the June – September 2021 by the project implementation consultants. The infrastructure will be constructed on the government owned land (property of West Sumbawa District, West Nusa Tenggara Province). The construction of subproject infrastructure have positive impact or will support function of the Marine and Fisheries Agency in West Sumbawa District, West Nusa Tenggara attn. Technic Implementation Unit, MPA Gili Balu (CDK, Sumbawa-Sumbawa Barat). Construction of the Ecotourism Center will support ecotourism activities and Surveillance Tower will support sea patrol activities conducted by Marine and Fisheries Agency West Nusa Tenggara Province.

3. **Legal and policy framework**: The Initial Environmental Examination (IEE) is conducted following the requirements of the relevant policies and laws of Government of Indonesia and ADB's safeguard policy statement (SPS 2009). The overall objective of these-above mentioned policies is to ensure that impacts of the environmental, if any, are screened and avoided. If the identified impacts are not possible to be avoided, suitable measures will be prepared and conducted.

4. **Project description and scope:** The representative subproject in MPA Gili Balu is the construction two units of Surveillance Towers in Paserang and Namo Islands, and then Ecotourism Centre in Poto Tano harbor complex. The design of the Ecotourism center is 8 x 8 m = 64 m^2 and the surveillance tower is 5 x 5 m = 25m^2 with height of the tower is 12 m. The subproject aims to support ecotourism activities and community surveillance patrol in MPA Gili Balu.

5. **Environmental Impact**. The IEE concludes that no identifiable significant environmental impact is the project deemed environmentally sensitive. Impact arising the construction and operational phase of the project are minor, localized and acceptable, providing that the set of mitigation measures set out in the environmental management plan (EMP) are incorporated in the design, implementation and monitored properly. Key impact include:

- 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.

6. **Environmental management Plan**. The contractor for construction of the subproject infrastructure will refer to the Statement of Readiness to manage and monitor environment (SPPL) in form of Letter of Commitment to the Environmental Management infrastructure in Nusa Penida. then the Environmental management Plan (EMP), which provides a set of mitigation and operational phases and implementation to avoid, reduce, mitigate or compensate for adverse environmental impact. Additionally, the contractor/project Implementation Partners will prepare the construction EMP (CEMP) of code of construction practices document (CoCP).
7. **Implementation arrangement**. Project Implementing Agency (IA) is Indonesia Climate Change Trust Fund (ICCTF). The IA engaged the Project's Consultant to implement the COREMAP CTI Project including the development of subproject infrastructures, are surveillance tower and information center in Gili Balu. The project consultant, PT Cakra Buana Aghna (CBA) with the joint venture, and PT. Sucofindo are responsible to construct the subproject infrastructures and conduct engagement to environmental examination.
8. **Implementation schedule:** This Environmental management plan will be implemented along the construction of subproject infrastructures. It is planed that the social management plan will be conducted from May 2022 up to September 2022.
9. **Monitoring and evaluation:** The subproject are category B for Initial Environmental Examination (IEE), therefore, it is not required the external monitoring experts to perform of external environmental performance on the subproject infrastructure. During the subproject implementation, Bappenas ICCTF will conduct internal monitoring and evaluation on Environmental Examination to ensure the development of the subproject infrastructure COREMAP CTI in Nusa Penida in compliance with ADB's SPS and the relevant Government's laws and regulations.

1 INTRODUCTION

A. Background

10. The Coral Reef Rehabilitation and Management Program - Coral Triangle Initiative Project (COREMAP–CTI, the Project) aims to manage coral reef resources, associated ecosystems and biodiversity in a sustainable manner for the welfare of coastal communities. The design of COREMAP-CTI reflects a phased and incremental approach. The first or initiation phase known as COREMAP Phase I (1998–2004) represented the pilot phase leading to the design of COREMAP Phase II (COREMAP II). The second or acceleration phase, COREMAP II (2004–2011) represented the initial implementation phase. The proposed Project is the third and final phase which intends to (i) complete remaining gaps in Phase II; (ii) "institutionalize" Phase II interventions; and (iii) build a "model" of coral reef rehabilitation and management program in Indonesia for replication and up-scaling in new areas. "Institutionalization" will mean integrating community-based activities within local Government functions and policies, and facilitate learning networks and institutional partnerships across regional and national institutions for project sustainability. The Project will follow a project financing modality for a sector Grant.

11. COREMAP-CTI will be aligned with Indonesia's National Plan of Action (NPOA) for the Coral Triangle Initiative (CTI), and aims to manage coral reef resources, associated ecosystems and biodiversity in a sustainable manner for increasing the incomes of coastal communities in Indonesia. Building upon Phase II interventions, the Project will deliver 3 effective Marine Protected Area (MPA) models that can be replicated across the country for sustainable coral reef management. The Project will help to move the MPAs to the next higher stage and reach optimum managed category by increasing and evaluating their management effectiveness.

12. The selection of subprojects within this sector modality will be based on the following key criteria: the subproject (i) contributes directly to environmentally sound non-consumptive resource utilization across the MPAs (e.g., environmentally-responsible tourism); (ii) supports development of sustainable fisheries (e.g., enhancing fish market facilities, fish landing sites, fish catch monitoring and catch regulation); (iii) contributes to fostering alternative

livelihoods that reduce fishing pressure or provides non-traditional gainful employment within the sector; and (iv) enhances effectiveness, governance, and financial sustainability of co-managed MPAs. Subprojects will be formulated and implemented using a community-driven development (CDD) approach.

13. Based on these criteria, the feasibility study for the project preparation will appraise representative (core) subprojects, for a national level MPA and for a subnational MPA. The core subprojects may include: (i) enabling infrastructure for private sector participation in ecotourism development (e.g., Information Centre, mooring buoys, telecommunications etc.); (ii) alternative livelihood-related infrastructure (fish ponds, fish cages, fish processing etc.) and (iii) MPA governance (e.g., management board, academic paper for endemic species, management plans, threatened species management plans, coral monitoring and database systems, monitoring and surveillance operations).

14. This Initial Environmental Examination (IEE) Report focuses on the environmental assessment of the management and livelihood interventions for MPA Gili Balu as a sample subproject, and is limited to infrastructures and livelihood, as these project interventions have potential for environmental impacts.

B. Objective of the IEE

15. The environmental assessment was undertaken collaboratively by the national consultant and project proponent through intensive communication with representative local government in the project sites, interviews/consultation and focus-group discussions with officials from project stakeholders such as the regencies, cities and municipal governments, villages, and district/field offices of national government agencies. including the Ministry of Marine Affairs and Fisheries (MMAF), National Development Planning Agency (BAPPENAS), Regional Development Planning Agency (Badan Perencanaan Pembangunan Daerah or BAPPEDA).

16. The IEE has been prepared based on the Environmental Assessment and Review Framework (EARF) developed by the ADB and endorsed by Government of Indonesia (GOI). The IEE also follows the guidelines of the Department of Forest and Environment (DOFE) and in accordance with the Safeguard Policy Statement 2009 (SPS 2009) of ADB and will be disclosed in the websites of the ADB and the implementing agencies. This document shall serve as the base of environmental assessment of the proposed sub-project to be implemented by the executing agency and guideline for environmental management activities on-site.

17. The IEE report aims to provide guidance on safeguard screening, assessment, institutional arrangement and process to be followed for components of the project, where design takes place after Bappenas ICCTF approval. This report also fulfils the requirements of IEE under the provisions of the Project Implementation Consultant.

C. Scope of this report

18. The scope of this report and the subsequent IEE is specific to the sub-project. It does not provide any assessment for any other/future developments or activities at the location or anywhere else within other project areas. Should any further development be planned as result of either this Project or other related work, additional planning and assessment to the requirements of the Government of Indonesia (GOI) must be carried out specifically in relation to that proposed development.

D. Structure of the Report

19. The IEE Outline consists of:
    - Policy, Legal and Administrative Framework
    - Description of the Project
    - Description of the Environment (Baseline)
    - Anticipated Environmental Impacts and Mitigation Measures
    - Information Disclosure, Consultation and Participation
    - Analysis of Alternatives
    - Information Disclosure, Consultation and Participation
    - Grievance Redress Mechanism
    - Environmental Management Plan
    - Conclusion and Recommendation

2

POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

A. ADB Safeguard Policy Statement

20. **Type**. This sector grant project is associated with environment and natural resources. It is multi-component, and related to investment in capacity building, coastal and fishery management, and livelihood development.

21. **The Project** is categorized as Category B for Environment under ADB's Safeguard Policy Statement (SPS) 2009, due to the project's emphasis on conservation of marine and coastal resources and the localized impacts for which mitigation measures can be readily designed and implemented. This is equivalent to Indonesia's requirement for Environment Management Effort/Environmental Monitoring Efforts (UKL-UPL). This categorization will be enforced through selection criteria of subprojects to ensure that no subproject interventions under any component will exceed this category. The purpose of this IEE is to provide sufficient information and analyst impacts of the proposed subproject to the existing environmental elements. In addition, this document also provides mitigation plan to minimize negative environmental impacts of the subproject.

B. Environmental Regulatory Framework in Indonesia

22. **Government of Indonesia**. The policy, legal, and administrative frameworks relevant is Minister Regulation of Forest and Environment, No. 4 year 2021 concerning the list of business and/ or activities which mandatory to have Environmental Impact Assessment, Environmental Management and Environmental Monitoring or Statement of Readiness to Monitor and Manage the environmental

23. The Government Regulation No. 22 Year 2021 concerning Implementation of Environmental Protection and Management

24. The Omnibus law in Job creation (Law No, 11/2020) required a permit to utilize the protected area, and have to conduct the impact assessment. The Act also stated the Coastal and small islands Ecosystem is coastal area and small island with uniqueness and being conserved to sustainable coastal and small islands management. Coastal ecosystem consists of mangrove, seagrass and coral reef. Then, the protected and conservation means to protect the ecosystem from adverse impact of the environmental and social elements.

25. The supporting letter from Head of District concerning subproject Infrastructure the West Sumbawa District No., 600/616/DPU-PRPP/IX/2021 in September 2021 agreed on the utilization of local government property land to build the subproject infrastructure of COREMAP CTI Project, Ecotourism Center.

Table 1 Comparison between ADB and Indonesian environmental safeguard systems

ADB Project Categories	Indonesian Project Categories (AMDAL system)
Category A: Projects with potential for significant adverse environmental impacts that are irreversible, diverse, or unprecedented. Therefore, an environmental impact assessment (EIA) including environmental management plan (EMP) is required.	**AMDAL**: Projects with potential for substantial impacts on the environment requiring Environmental Impact Analysis or ANDAL report and environmental management and monitoring plan (RKL-RPL) The criteria and scale of the project that trigger an Amdal are definded in the MOEF regulation No. P.4/2021.
Category B: Projects judged to have some adverse environmental impacts, but of lesser degree and/or significance than those for category A projects, and requiring an initial environmental examination (IEE) including environmental management plan (EMP).	**UKL-UPL**: Projects not required to have AMDAL are obliged to have Environmental Management Efforts/Plan (UKL) and Environmental Monitoring Efforts/Plan (UPL) as stipulated in the MOEF regulation No. P.4/2021.
Category C: Projects unlikely to have adverse environmental impacts. No EIA and IEE required, but environmental implication of the project need to be reviewed.	**SPPL**: Projects that do not require AMDAL or UKL-UPL are obliged to submit a 'statement of management and environmental monitoring ability' or SPPL

26. **Relevant International Agreement**. The Government of Indonesia is signatory to a number of international conventions, treaties, agreements and Memorandum of Understanding (MOU's) that relate to terrestrial, coastal and marine species habitats and environmental issues which signify the interest in the protection of global and Pacific environments for the benefit of future generations.

27. **The international instrument** on Water quality and Marine – The Government of Indonesia is signatory to a United Nation Convention on the Law of Sea (UNCLOS 1982). This instrument governs extensive marine issues including maritime zone, marine pollution, Research, the protection and preservation of the marine environment, and dispute resolution on the maritime delimitation.

C. ADB safeguard policy

28. **The ADB's Safeguard Policy Statement 2009** (SPS) has the objectives to (i) avoid adverse impacts of projects on the environment and affected people; (ii) where possible; minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and (iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks.

29. **Safeguard policies** are the cornerstone of the assistance provided to developing countries by their development partners. The safeguards included within the ADB's policy relate to the environment, involuntary resettlement, and indigenous peoples. The environment safeguard requires due diligence which entails addressing environmental concerns, if any, of a proposed activity in the initial stages of project preparation.

30. A category B determination of a project is judged to have some adverse environmental impacts all of which are of low significance and through due diligence manageable with no long-term significant effect on the environment.

3
DESCRIPTION OF THE PROJECT

A. Project Location Plan

31. **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.

32. **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.

33. **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.

B. Proposed Main and Supporting Activities

34. **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.

35. The Gili Balu 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.

36. 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.

37. 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

38. The basic infrastructures of the subproject in Gili Balu, NTB are listed in Table 2, below:

Table 2 Subproject intervention in Gili Balu

No	Infrastructure	Number of Unit	Location	Estimated Building Requirement (m^2)
1	Information Center	1 unit	Poto Tano Harbour complex	Est 8 x 8 = 64m^2 Land Est 500m^2
2	Mooring Buoy	8 units	MPA - Gili Balu Islands	Est area 0,70 ha
3	Surveillance Tower	2 unit	Namo Island and Paserang Island, Gili Balu	5x5m = 25m^2

39. **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).

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

Table 3 Work volume of subproject components

No	Infrastructure	Work volume		
		Quarry resources	Wood*	Other material
1	Information Centre	52.5 m^3	5 m^3	
2	Surveillance tower	155 m^3	5 m^3	
3	Mooring Bouy	1 m^3	-	

Note: * The wood is commonly provided and legally used.

41. Implementation Schedule. The schedule of implementation for Output 3: Basic infrastructures are shown in Table 4 below.

Table 4 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							
Ecotourism Center	1	Unit					
Mooring Buoy	8	Unit					
Surveilance Tower	2	Unit					

Figure 1 Design of Ecotourism Center and Surveillance Tower in Gili Balu

Source: PT CBA and PT. Sucofindo, 2022

4

DESCRIPTION OF THE ENVIRONMENT (BASELINE DATA)

A. Physical Environment

42. **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.

43. **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.

44. **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^{0}C, tended to be the same and did not vary much between data collection stations

45. **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.

46. **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 tanp Port complex, West Sumbawa Regency government.

Figure 2 Tourism Information center building location

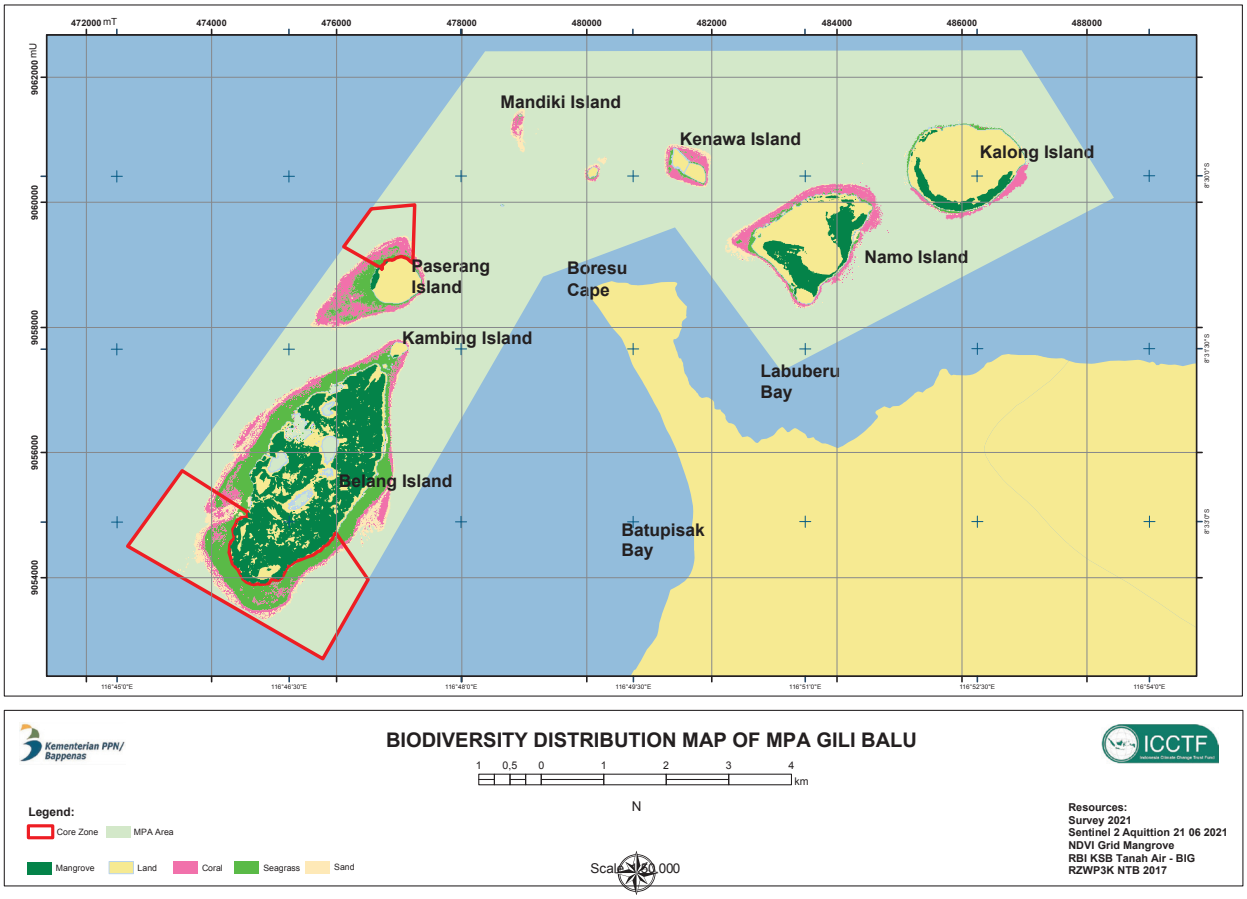
Figure 3 Area for Ecotourism Center

Source: COREMAP CTI, CBA, 2021

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

47. **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.

Figure 4 Map Biodiversity of MPA Gili Balu



48. **Ecological survey**. 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:

49. **Mooring buoy.** The location for establishment mooring buoy is Kenawa Island with three points to set the mooring buoys, which is Kenawa 1, Kenawa 2 and Kenawa 3, with the condition as follow:

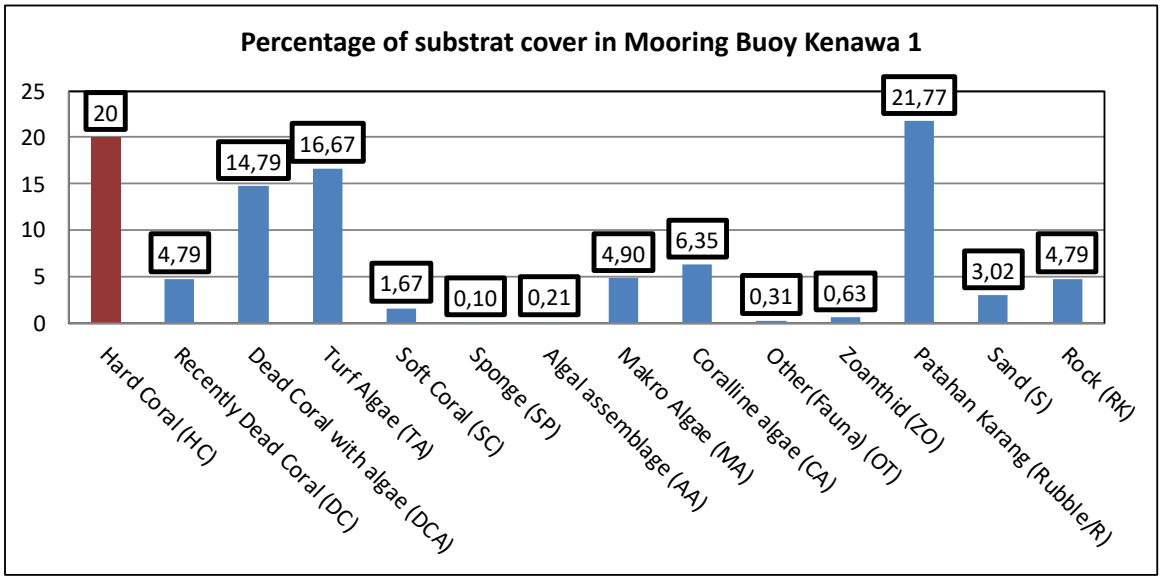
Kenawa 1

Table 5 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 5 Percentage of substrat cover in mooring buoy Kenawa 1



Source: COREMAP CTI, CBA, 2021

Figure 6 Coral reef cover in Kenawa 1

Source: COREMAP CTI, CBA, 2021

50. 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

51. 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 6 Reef Fish in Kenawa 1

No	Species	Familia	Functional Group	Density (ind/m^2)	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)
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)

No	Species	Familia	Functional Group	Density (ind/m²)	Status IUCN Red List
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)
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 7 Summary of Mooring buoy in Kenawa 2

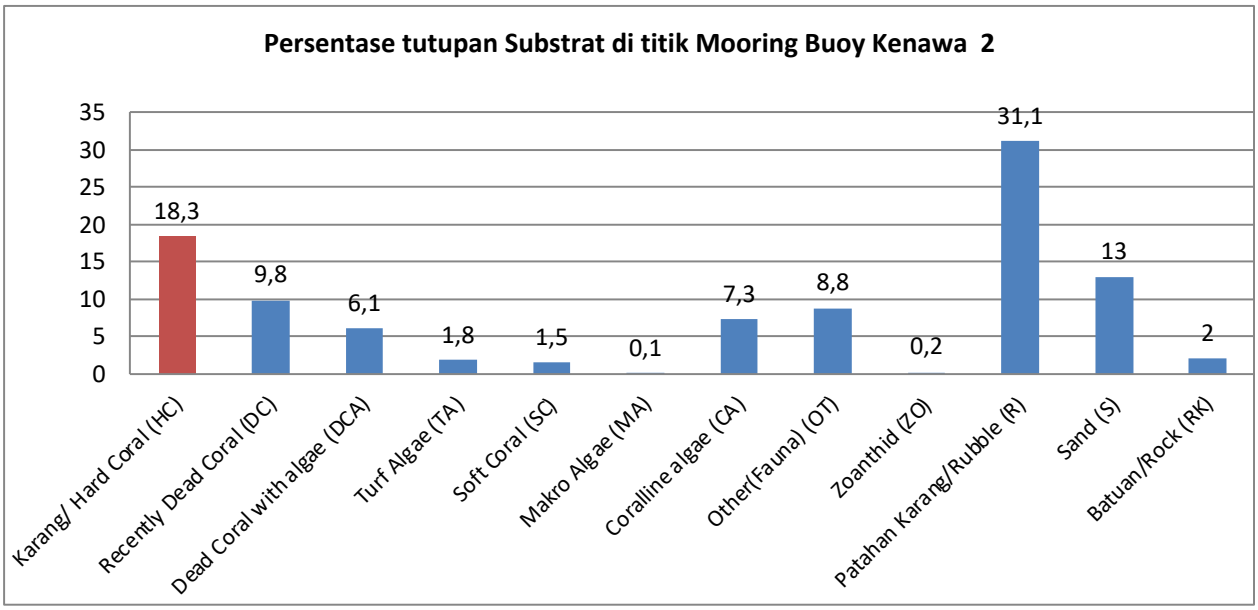
No	Baseline	Remark
1	Substrat	sandy, rubble (coral fracture), coral
2	Coral reef covers	18,3%
3	Non-coral substrat	81,7%, dominated with Rubble 31,1%
4	Number of reef fish	60 types with density of 2,356 Ind/m²
5	The water current is quite calm	0.2-0.3 m/s
6	Depth	15-20 meter
7	Coordinate	S: 8°30'02.5"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

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

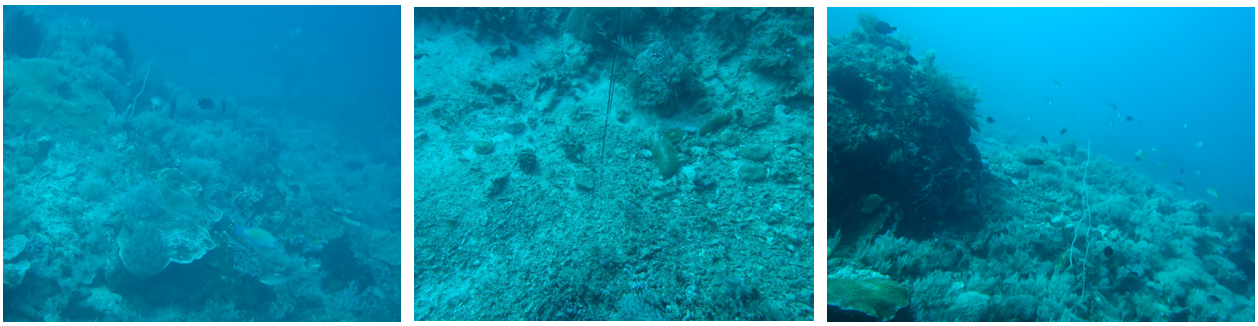
52. The coral reef cover or hard coral (HC) around the mooring buoys in Kenawa 2 has a cover of 18.3% while the other 91.7% is covered by non-coral substrate. Coral rubble (R) remains are the most dominant type of substrate around Kenawa 2, with the percentage of 31.1%

Figure 7 Percentage of substrat in mooring buoy in Kenawa-2



Source: COREMAP CTI, CBA, 2021

Figure 8 Coral cover in mooring buoy Kenawa 2



Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

53. 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 8 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)
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)
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)

No	Species	Familia	Functional Group	Density /m²	Status IUCN Red List
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 9 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

54. 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 9 Substrat condition and set of the mooring buoy at Kenawa 3

Source: COREMAP CTI, CBA, 2021

Kalong

Coral Cover and Coral Fish

Table 10 Summary of baseline in kalong Point

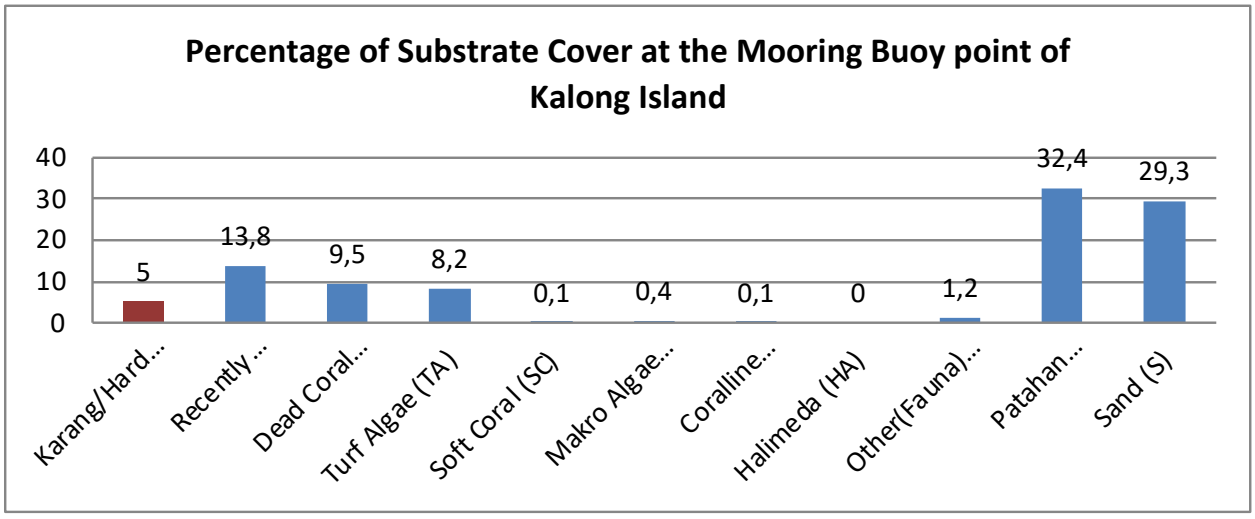
No	Baseline	Remark
1	Substrat	Dominated with rubble (coral fracture), coral
2	Coral reef covers	5%
3	Non-coral substrat	95% (coral fracture 32,4% dan sand 29,3%)
4	Number of reef fish	33 type with density of 0,944 Ind/m^2
5	water current speed	0.1-0.3 m/s
6	Depth	8 meter
7	Coordinate	S: 8°29'31.2" E: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

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

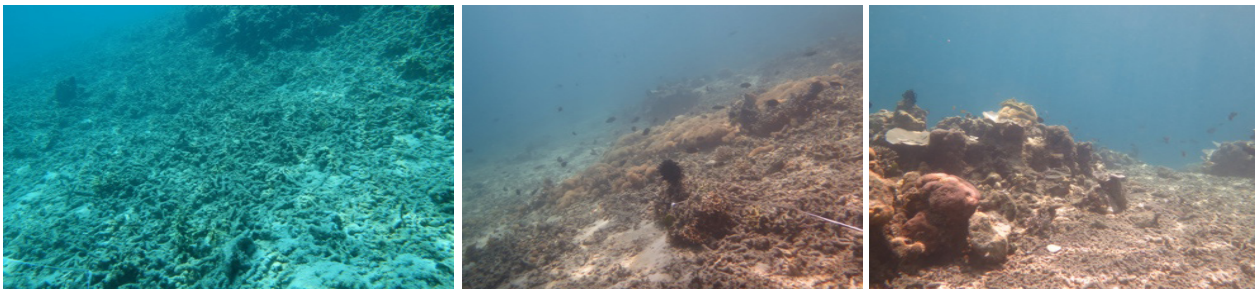
The coral reef cover or hard coral (HC) around the mooring buoys in Kalong Island has a cover of 5% while the other 95% is covered by non-coral substrate. Coral rubble (R) remains are the most dominant type of substrate around Kalong Island, with the percentage of 32.4%

Figure 10 Coral covers and mooring buoy setting point in Kalong Island



Source: COREMAP CTI, CBA, 2021

Figure 11 Coral Reef in Kalaong Island



Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

55. 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 11 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)
23	*Scolopsis bilineata*	Nemipteridae	Major	0.024	LC (Least Concern)
24	*Amphiprion sabae*	Pomacentridae	Major	0.004	Not evaluated

No	Species	Familia	Functional Group	Density ind/m^2	Status IUCN Red List
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

56. 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 12 Summary of baseline in Paserang 1

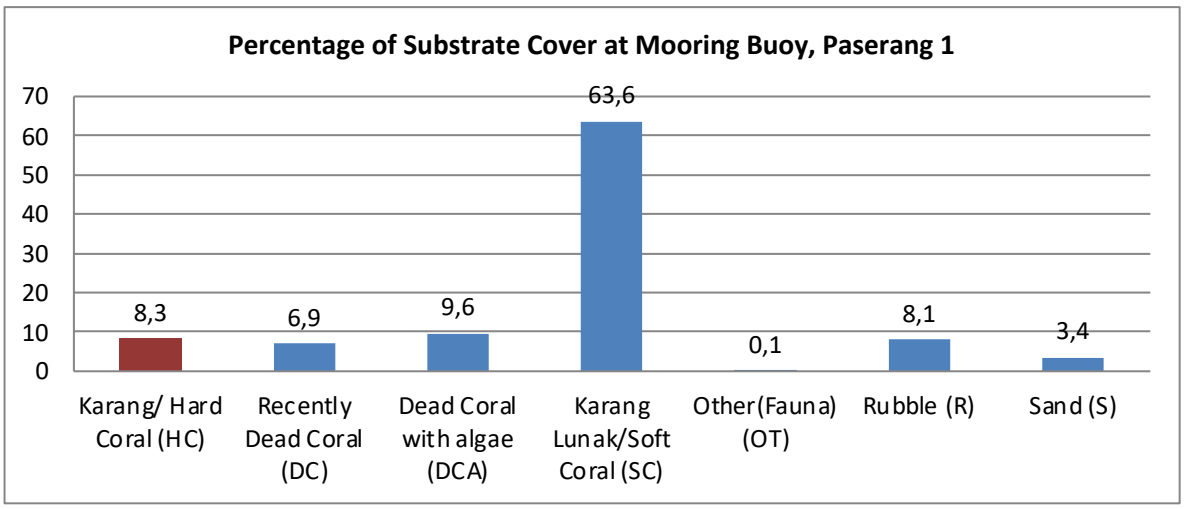
No	Baseline	Remark
1	Substrat	sandy, rubble (coral fracture), coral
2	Coral reef covers	8,3%
3	Non-coral substrat	91,7% (soft coral 63,6%)
4	Number of reef fish	54 types with density of 4,188 ind/m^2
5	Water current speed	0,15 m/s
6	Depth	10 m
7	Coordinate	S: 8°31'10.5" E: 116°47'21.9"

Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

57. 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 12 Coral cover and mooring buoy setting point in Paserang 1



Source: COREMAP CTI, CBA, 2021

Figure 13 Coral condition in Paserang - 1

Source: COREMAP CTI, CBA, 2021

Biodiversity of Reef Fish

58. 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 13 Reef fish in Paserang 1

No	Species	Familia	Functional Group	Density Ind/ m^2	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)
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)

No	Species	Familia	Functional Group	Density Ind/ m^2	Status IUCN Red List
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)
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

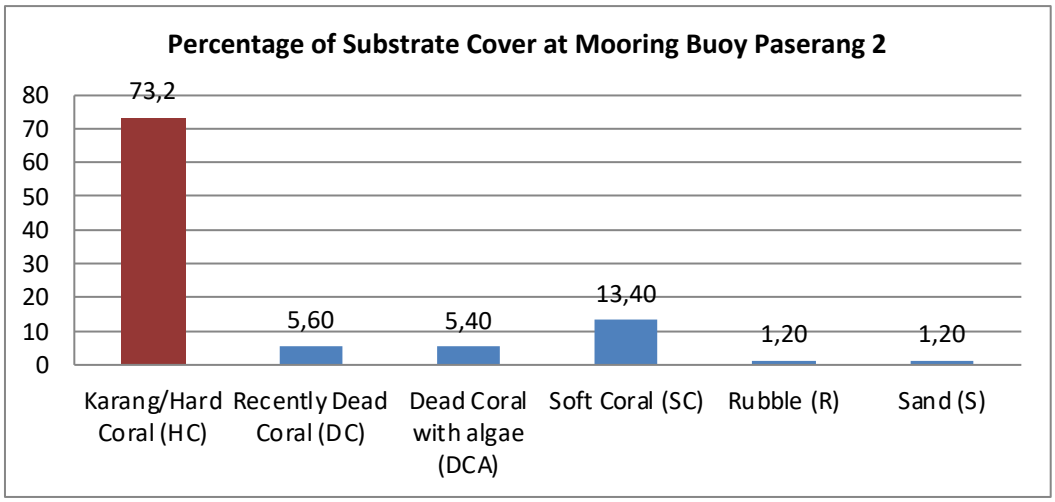
Coral Cover and Coral Fish

Table 14 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"

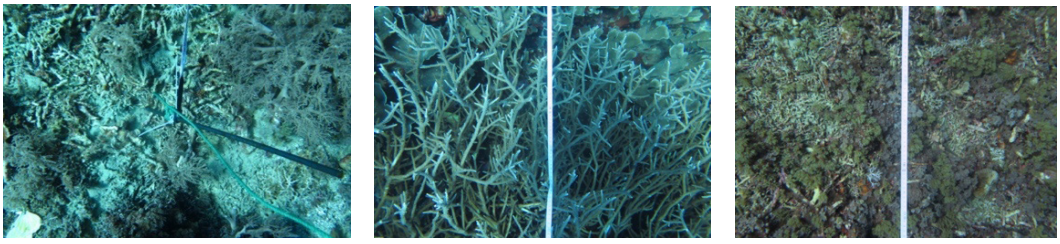
Source: COREMAP CTI, CBA, 2021

Figure 14 Coral Cover in Paserang 2



Source: COREMAP CTI, CBA, 2021

Figure 15 Coral Cover in Paserang 2



Source: COREMAP CTI, CBA, 2021

Coral Reef Cover

59. 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.

Biodiversity of Reef Fish

60. 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 15 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)

No	Species	Familia	Functional Group	Density Ind/m²	Status IUCN Red List
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)
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 16 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

61. 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:

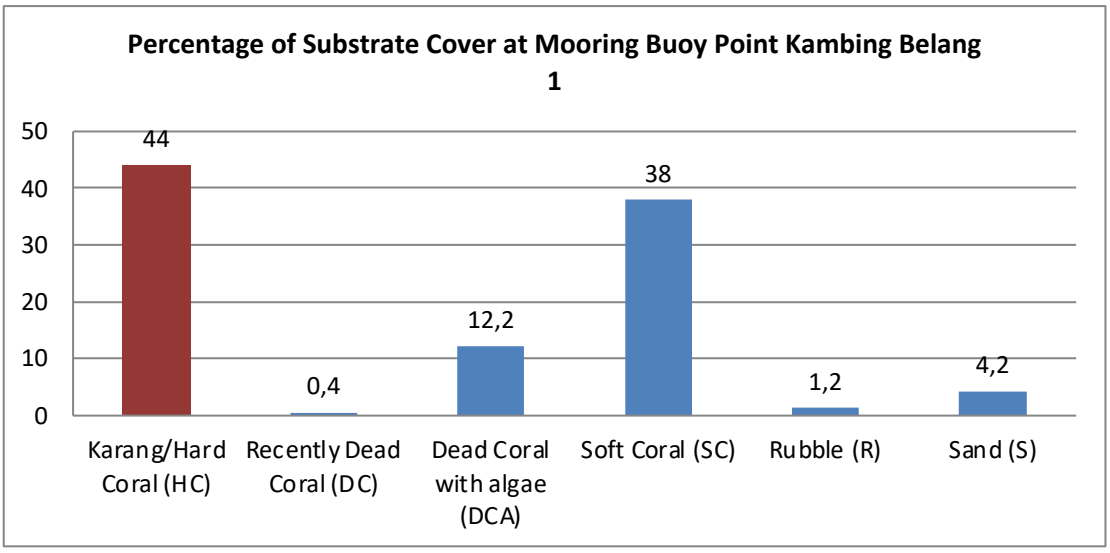
Coral Cover and Coral Fish

Table 17 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

Figure 15 Coral cover and mooring buoy setting point in Island of Kambing Belang 1



Source: COREMAP CTI, CBA, 2021

Figure 16 Coral cover condition in Kambing and Belang 1 islands

Source: COREMAP CTI, CBA, 2021

Coral Cover in Kambing and Belang 1 islands

62. 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%

Biodiversity of Reef Fish in Kambing and Belang 1 Islands

63. 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 18 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)

No	Species	Familia	Functional Group	Density Ind/m²	Status IUCN Red List
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)
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 19 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 17 Condition of coral in Belang 2

Source: COREMAP CTI, CBA, 2021

Namo Island

64. 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 20 Value of Mangrove in Namo Island

Species	Coverage area (Ha)	Total species (unit)	Density (Ind/m^2)	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

65. **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.

66. 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.

67. **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.

68. **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.

69. **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.

70. **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.

5

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

71. **Screening and Categorization of subproject components**. Table 21 presents prediction and assessment of the project likely positive and negative direct and indirect impact, identifies mitigation measure and any residual negative impact that cannot be mitigated.

Table 21 Screening subproject components in Gili Balu

Component	Impact	Mitigation	Residual impact
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 culture, value, custome and service to visi MPA Gili Balu	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
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 bouy (such as retribution/ enterance fee for tourist boat)	To ensure the maintainance of the mooring buoy will be operated long term and sustainable. And it will refer to MPA management plan for Gili Balu.

72. The ADB Rapid Environmental Assessment (REA) checklists for screening process, as applied to the Nusa MPA Effectiveness Subproject interventions as Attachment 2. The initial category/type of the subproject components, under ADB SPS 2009 and the Indonesian AMDAL regulations, just recent Minister Regulation of Environment and Forestry No. 4 dated, April 1, 2021.

73. The Consultant Team for Gili Balu,PT CBA and Sucofindo have been advised by the Environment and Forest Agency, and Marine and Fisheries Agency and Local Government of Province of West Nusa Tenggara and West Sumbawa District to obtain the statement of readiness to manage and monitor the environment (SPPL) or UKL-UPL. Currently, the Consultants is finishing the revised Detail Engineering Design (DED) for Information center, Surveillance Post and Mooring Bouy and already have IMB (building permit document) for all subproject.

Table 22 Environmental Approval

Subproject intervention	ADB Category	AMDAL Type (GoI Category)
Ecotourism Center Surveillance tower	B – IEE needed (Integrated in this IEE)	SPPL (Statement of readiness to manage and monitor environment)
Mooring Bouy		UKL-UPL

Table 23 Matrix of Environmental Management and Mitigation Efforts of the Subproject Information Center

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.	Poto Tano Harbour Complex	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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 air quality and noise • Traffic disruptions	• Small, • Small,	• 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 and conduct coordination with local tarnsportation 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 hazardouse disposal)	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**: 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.

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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 the every stage of construction work • 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	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 • 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**: 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.
			Operational Phase					

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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**: 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.

Table 24 Matrix of Environmental Management and Mitigation Efforts of the Subproject Surveillance Post

No.	Impactt			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.	Around the project area (Namo and Paserang Island)	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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.

No.	Impactt			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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:** CBA and Sucofindo (Project Implementation Partner) **B. Supervisor:** DLH NTB Province **C. Report recipients:** DLH NTBi Province, **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Construction					

No.	Impactt			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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 Surveillance tower will use the certified wood of Bangkirai	• small, • Small,	• 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 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 hazardouse disposal)	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. Supervisor**: 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.	Impactt			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
2.	Base camp operations, equipment and materials warehouses, and physical development.		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 the 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 cutted of during the construction of 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	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		D. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) E. **Supervisor**: 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.	Impactt			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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**	D. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) E. **Supervisor**: DLH West Nusa Tenggara Province, F. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			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 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 surveillance post for a year	**50,000,000**	D. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) E. **Supervisor**: DLH West Nusa Tenggara Province, F. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

Table 25 Matrix of Environmental Management and Mitigation Efforts of the Subproject Mooring bouy

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 bouy 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	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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, • Small,	• Material carrier vehicles use covers and will avoid to decrease water quality • Handing out bouy 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 • Central government permit isuued 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 hazardouse disposal	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**	**G. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **H. Supervisor**: DLH West Nusa Tenggara Province, **I. Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

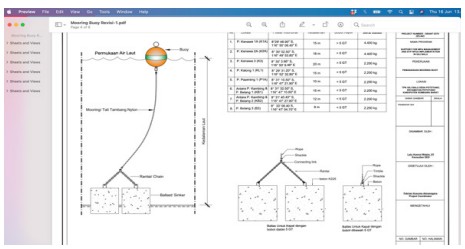
No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
2.	Base camp operations, equipment and materials warehouses, and physical development.	Occurrence of aesthetic 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 the 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		G. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) H. **Supervisor**: DLH West Nusa Tenggara Province, I. **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 • 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**	G. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) H. **Supervisor:** DLH West Nusa Tenggara Province, I. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Operational Phase					

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
1.	Operational of Information Center	The occurrence of negative public perceptions	Medium,	• Conduct inspection of Mooring Bouy 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 bouy for a year	**50,000,000**	G. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) H. **Supervisor:** DLH West Nusa Tenggara Province, I. **Report Recipients:** DLH West Nusa Tenggara Province D. **Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

6
ANALYSIS OF ALTERNATIVE

74. The Table 24 presents the examination analysis of alternative to the proposed project as follow:

Table 26 Analysis of Alternative of the subproject infrastructure

Item	No project	With project	Design of the Subproject infrastructure
Ecotourism center	As a tourist destination, many potential coastal resources are not realized (no deocumentation yet) by visitors and many visitors do not know where they can get the information about Gili Balu MPA	The Ecotourism center will provide various documentation material regarding the wonderful natural resources Gili Balu including conservation and rehabilitation activities which is implementing by the community	
Surveillance post	There is no surveillance and monitoring on the use of marine resources & illegal activities in MPA Gili Balu.	The Pokmaswas will oversee community activities on the sea and coastal area in MPA Gili Balu and coordination with related government.	
Mooring Bouy	There is not enough infrastructure for boat to anchor floating boat in the shore which will cause the sailor anchor on the rock or coral and make adverse impact.	The boat will anchor at the mooring buoy which will take into account environmental aspects	

7
INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

75. Consultant to date. Consultation was also conducted with authorized agencies in the NTB Province and the West Sumbawa District.

Table 27 List of Public consultant in Gili Balu

Date	Public Consultation	Issue	Number of participants		Representative of local government
			Female	Male	
22 Mar 2021	Consultation and introduction to Pokmaswas regarding project in Gili Balu	To introduce the project intervention on the surveillance activities	-	20	CDK Officer Police
6 May 2021	Stakeholder meeting ICCTF, Project consultant, Surveillance group, representative of community	To inform the stakeholder the COREMAP CTI intervention on the surveillance activities	-	11	CDK Officer Rep of Tourism Agency
14 Jun 2021	Coordination with Pokmaswas regarding surveillance boat	To consult Pokmaswas on the surveillance infrastructure including surveillance tower	4	13	CDK Officer Police
15 Jun 2021	Coordination with Pokmaswas related to mangrove forest restoration	To consult surveillance tower in namo island and activity of mangrove rehabilitation	4	13	Officer CDK Police
14 Juni 2021	Community meeting on patrol boat for surveillance group	To consult the boat specification for sea patrol	4	16	2 person (KCD, and Police)
15 Juni 2021	Community meeting on Mangrove with community surveillance group	To consult rehabilitation mangrove in Namo island as the area for surveillance tower	4	16	3 person (2 person KCD, and 1 person police
3 Agusut 2021	Community Meeting on introduction of Grant Package 3 activities in Gili Balu	Introducing the Coremap CTI subproject activities in Gili Balu	4	10	West Sumbawa District Government agencies, CDK Officer, Rep Pokmaswas, Pokdarwis
12 August 2021	Coordination Meeting on development subproject infrastructure in for MPA Gili Balu	Introducing the Coremap CTI activities including construction Ecotourism Center and Information center	4	10	West Sumbawa District Government agencies, CDK Officer,

Date	Public Consultation	Issue	Number of participants		Representative of local government
			Female	Male	
22 September 2021	Coordination meeting on establishment for setting mooring buoy in MPA Gilil Balu	Disseminating on establishment mooring buoy in MPA Gili Balu	5	12	West Sumbawa District Government agencies, CDK Officer
23 September 2021	Coordination Meeting on area for Ecotourism center for MPA Gili Balu	The Public work West Sumbawa agencies proposed the area for ecotourism center	5	12	West Sumbawa District Government agencies, CDK Officer,

76. This final IEE will be made available to the public on both ICCTF and ADB website as part of information disclosure. IEE will be using English, while SPPL and UKL UPL will be using Bahasa Indonesia, as it is requirement from national government, and also to make easier for community near project area to understand the SPPL or UKL UPL.

8
GRIEVANCE REDRESS MECHANISM (GRM)

77. The ICCTF-BAPPENAS/PIU together with representation from concerned NGOs (includes academic and research entities) will ensure a culturally appropriate grievance redress mechanism to receive and address, in coordination with provincial authorities, project related concerns and to resolve IP related disputes that may arise during project implementation. It is anticipated that all grievances related to benefits and other assistance will be resolved at the subproject and PIU level.

78. The grievance redress mechanism can be delivered through implementing partner as well as PIU. During this project preparation, the implementing partners develop the grievance redress mechanism that easily accessible to community and related stakeholders. The implementing partner will be able to solve the problem before proceeding to the PIU. However, there may be a need to escalate the grievance from the activity level to the project level due to vested interests. For this purpose, the PIU will have a team or channel to be a spokesperson and complaints manager for the whole project.

79. 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 community 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 verified the concern is not 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.

80. This grievance team is responsible for problem resolution and documentation of all grievance processes, from receiving, forwarding, responding, and closing of any grievance. This enables the PIU to track all grievances and take appropriate action. This channel or hotline number will be provided by both ICCTF-BAPPENAS and implementing partner. ICCTF-BAPPENAS has an email address (secretariat@icctf.or.id) for grievance redress on the existing ICCTF-BAPPENAS website (www.icctf.or.id).

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 finding 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.

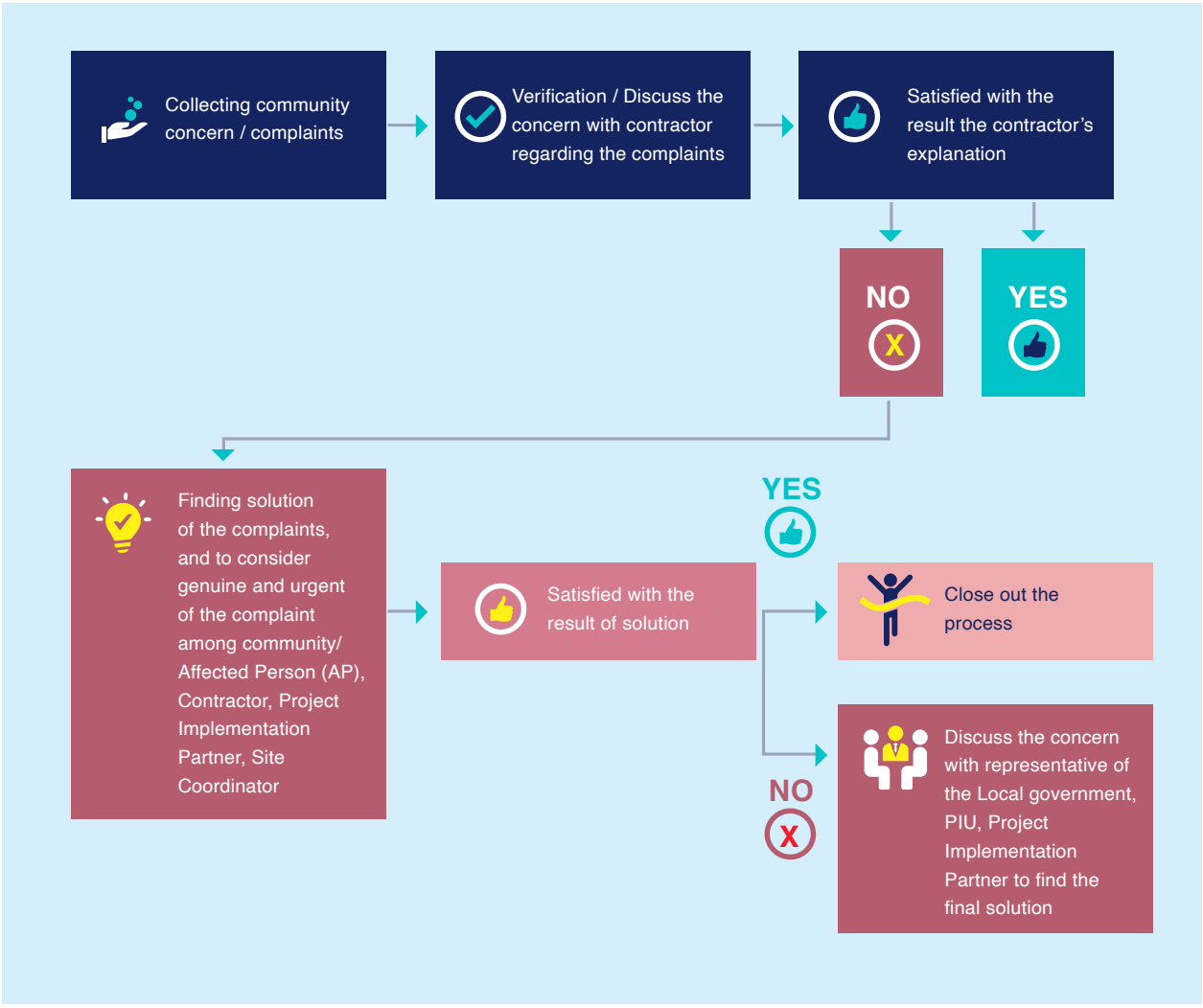
81. At the village level local community through their facilitator or representative may bring the complaints to the village leaders and/or customary leaders, then they may bring it to the officers in project's field office or sub-project site office.

82. The Site coordinator (s) and the project consultant, safeguards consultant(s) will assist local community in registering their complaints with PIU, field office or sub-project site office, and preparing their specific grievance. The PIU Team Leader will consider the complaint and within 15 working days will convey a decision to the APs. These staff, along with local government district officials, will assist the Project Manager in reviewing and addressing the complaint. Project's district officer will record/file keeping the complaint.

83. The safeguards staff will facilitate communication between the APs and the PIU in this process. If the APs are not satisfied with the PIU's decision, they may then take the grievance to the provincial government level, who will have two weeks to consider the complaint and following this will either instruct the PIU to rectify the situation or dismiss the complaint. If APs are still not satisfied with the decision, they may take the grievance to the Indonesia judicial system through the State Court.

84. The Grievance Redress Mechanism (GRM) has been disseminated during consultation with the community and will continue to disseminate to ensure the community aware to express their concern especially during the construction phase.

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



9 ENVIRONMENTAL MONITORING PLAN (EMP)

Table 23 Matrix of Environmental Management and Mitigation Efforts of the Subproject Information Center

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.	Poto Tano Harbour Complex	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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.

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
			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	• Small, • Small,	• 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 and conduct coordination with local tarnsportation 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 hazardouse disposal)	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**	**J. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **K. Supervisor**: DLH West Nusa Tenggara Province, **L. 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)	
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 the every stage of construction work • 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	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		J. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) K. **Supervisor**: DLH West Nusa Tenggara Province, L. **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 • 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**	J. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) K. **Supervisor**: DLH West Nusa Tenggara Province, L. **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)	
			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**	J. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) K. **Supervisor**: DLH West Nusa Tenggara Province, L. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

Table 24 Matrix of Environmental Management and Mitigation Efforts of the Subproject Surveillance Post

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.	Around the project area (Namo and Paserang Island)	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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.
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**	**B. Executor:** CBA and Sucofindo (Project Implementation Partner) **B. Supervisor:** DLH NTB Province **C. Report recipients:** DLH NTBi Province, **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
			Construction					

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
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 Surveillance tower will use the certified wood of Bangkirai	• small, • Small,	• 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 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 hazardouse disposal)	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**	**M. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **N. Supervisor**: DLH West Nusa Tenggara Province, **O. 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)	
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 the 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 cutted of during the construction of 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	Across the project site area, equipment and materials warehouse, and base camp area.	Every day during construction activities		M. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) N. **Supervisor**: DLH West Nusa Tenggara Province, O. **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)	
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**	M. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) N. **Supervisor**: DLH West Nusa Tenggara Province, O. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.
				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 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 surveillance post for a year	**50,000,000**	M. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) N. **Supervisor**: DLH West Nusa Tenggara Province, O. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

Table 25 Matrix of Environmental Management and Mitigation Efforts of the Subproject Mooring bouy

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 bouy 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	Every day during pre-construction activities at the beginning of planning and after the completion of DED ahead of construction	**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.

No.	Impact			Environment management efforts				Environment management institutions
	Impact Source	Types of Impacts	Magnitude of Impact	Mitigation Effort	Location	Period	Mitigation Cost (IDR)	
			Construction					
1.	Mobilization of equipment and materials, construction of physical buildings and demobilization of equipment and building materials.	• Decreased water quality and noise	• Small, • Small,	• Handing out bouy to employees and the community in the vicinity of the activity site. • Provide briefings and early warning about the symptoms of deterioration in water quality. • Health check-up workers to the doctor or hospital • 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 • Central government permit isuued 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 hazardouse disposal)	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**	**P. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **Q. Supervisor**: DLH West Nusa Tenggara Province, **R. 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)	
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 the 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		**P. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **Q. Supervisor**: DLH West Nusa Tenggara Province, **R. 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 • 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**	**P. Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) **Q. Supervisor**: DLH West Nusa Tenggara Province, **R. 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)	
			Operational Phase					
1.	Operational of Information Center	The occurrence of negative public perceptions	Medium,	• Conduct inspection of Mooring Bouy 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 bouy for a year	**50,000,000**	P. **Executor**: PT. CBA and PT. Sucofindo (Project Implementation Partner) Q. **Supervisor**: DLH West Nusa Tenggara Province, R. **Report Recipients:** DLH West Nusa Tenggara Province **D. Coordination:** DKP (Marine and Fisheries Agency), Tourism Agency, Transportation Agency.

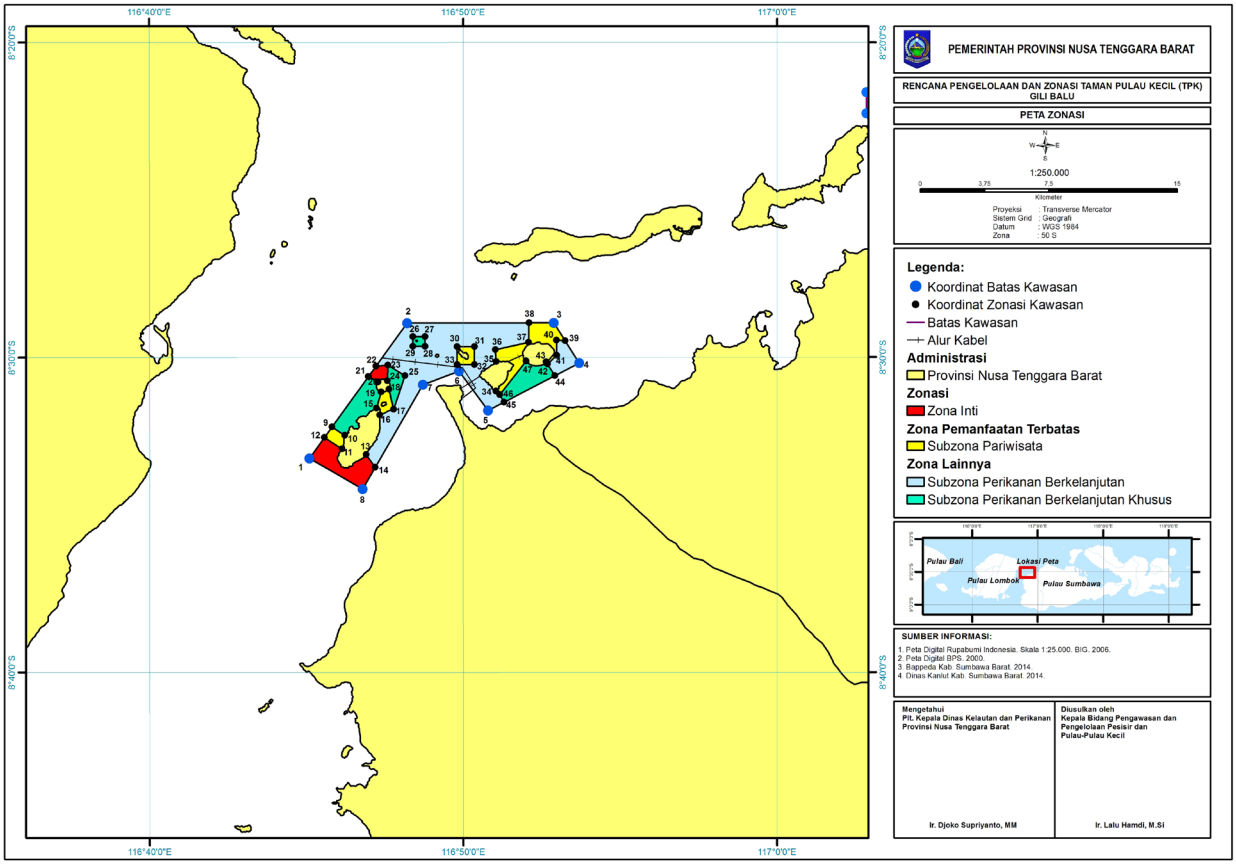
10 CONCLUSIONS AND RECOMMENDATION

85. Based on the evaluation of the different interventions under Gili Balu Subproject infrastructure, and its possible impacts on the environment, this IEE finds that the proposed MPA Gili Balu Sub-project will create no significant adverse environmental impacts and substantial and positive environmental benefits are expected for improved MPA effectiveness. Some of negative impacts identified can be easily mitigated by adoption of specific measures as outlined in this report. This IEE, with the recommended institutional and monitoring program, is sufficient for the sub-project. As a form of commitment to the environment in accordance with the provisions of development preparation in Indonesia, the implementing partners have taken care of the IMB (building permit) and will proceed to the process of issuing UKLs/UPLs or SPPL for the three types of buildings. Additionally, the contractor prepare the Construction Environmental Management Plan (CEMP) or Code of Construction Practices (CoCP) for project based on the related EMP with small construction activities. As a form of monitoring effort, a GRM mechanism will be implemented through a hotline (email/hotline) via information board, and will be recorded periodically.

APPENDICES

Appendix 1

Location Map of Gili Balu Islands Subproject



Appendix 2

ADB REA Checklists

Rapid Environmental Assessment (REA) Checklist

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	√		➢ 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
B. 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

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

Appendix 3

Checklist for Preliminary Climate Risk Screening

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[1]
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)?	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:

1 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.

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.

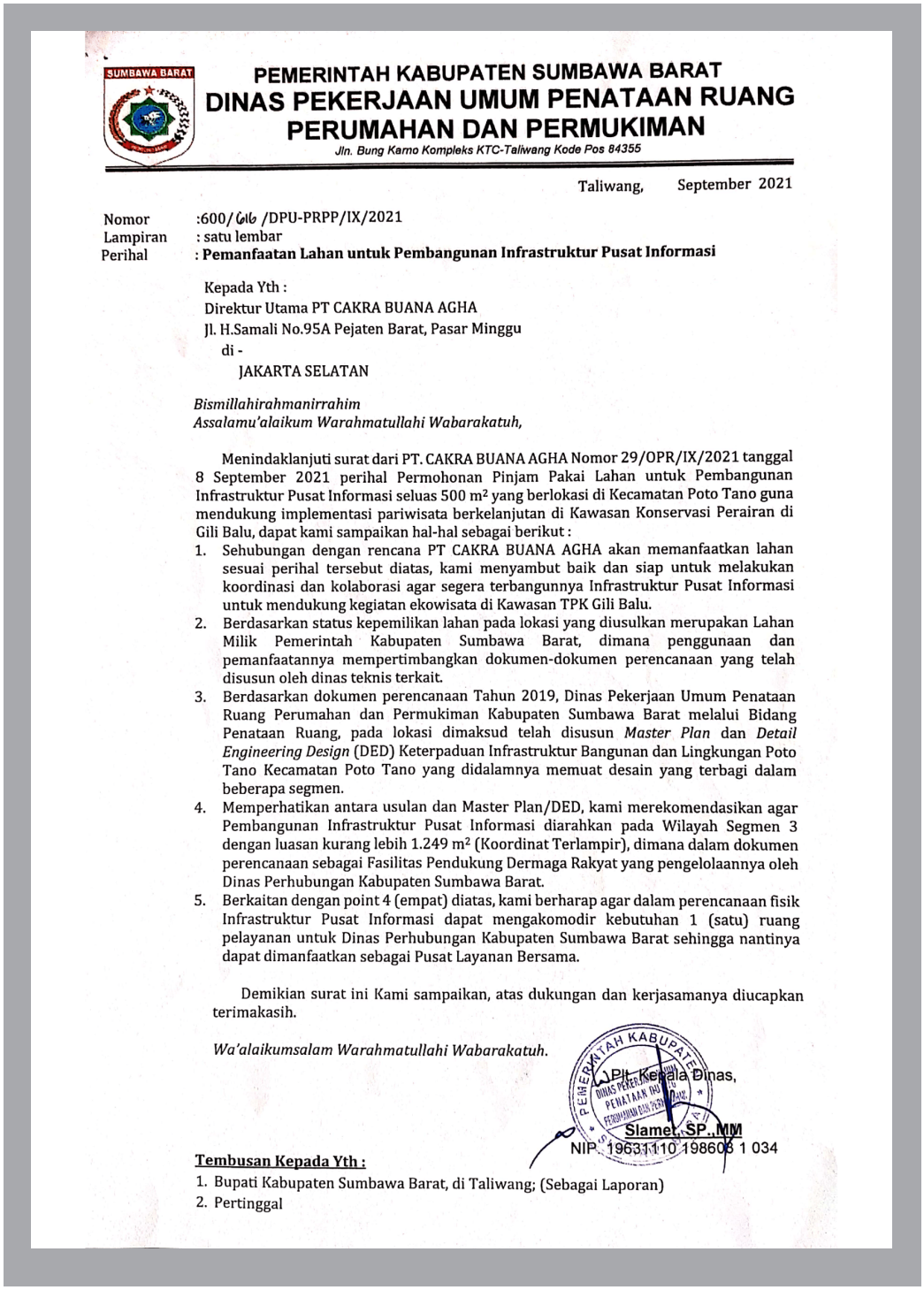
Result of Initial Screening (Low, Medium, High):___Medium__

Other Comments:_____
_____
_____

Prepared by: Rian Febri (PT. CBA)

Appendix 4

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.

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	-8.529535T	116.833263T
Utara A	Resparasi 1	-8.529490T	116.833458T
Selatan A	Resparasi 1	-8.530006T	116.833611T
Selatan B	Resparasi 1	-8.530084T	116.833462T

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.

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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

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MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA

KONFIRMASI KESESUAIAN RUANG LAUT

Nomor: B.291/MEN-KP/V/2022

Berdasarkan ketentuan Peraturan Pemerintah Nomor 21 Tahun 2021 tentang Penyelenggaraan Penataan Ruang, Menteri Kelautan dan Perikanan menerbitkan Konfirmasi Kesesuaian Ruang Laut kepada:

Nama	:	Dinas Kelautan dan Perikanan Provinsi Nusa Tenggara Barat
Nomor Pokok Wajib Pajak	:	00.266.806.9-911.000
Alamat	:	Jalan Semanggi No 8, Kelurahan Monjok Barat, Kecamatan Selaparang, Kota Mataram, Provinsi Nusa Tenggara Barat
Nomor Telepon Seluler	:	081932052229
Nomor Telepon/Faksimili	:	(0370) 632083
Alamat Surat Elektronik	:	dislutkanntb@yahoo.com/kp3kntb07@gmail.com
Status Penanaman Modal	:	-
Lokasi yang Disetujui		
c. Provinsi	:	Nusa Tenggara Barat
d. Nama Perairan	:	Selat Alas
Jenis Kegiatan	:	Pemasangan Mooring Buoy
Luas	:	0,70 ha

Konfirmasi Kesesuaian Ruang Laut ini berlaku sejak tanggal diterbitkan dan menjadi acuan untuk memperoleh perizinan lainnya. Dalam hal perizinan lainnya belum diterbitkan, maka Konfirmasi Kesesuaian Ruang Laut berlaku untuk jangka waktu 2 (dua) tahun sejak diterbitkan.

Daftar koordinat, peta, serta hak dan kewajiban sebagaimana terlampir merupakan bagian yang tidak terpisahkan dari Konfirmasi Kesesuaian Ruang Laut ini.

Diterbitkan di Jakarta
pada tanggal 18 Mei 2022

MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA

SAKTI WAHYU TRENGGONO

Appendix 5

Confirmation letter of Marine Space Suitability for Mooring Bouy Installation In Gili Balu, West Nusa tenggara

LAMPIRAN I
Nomor: B.291/MEN-KP/V/2022

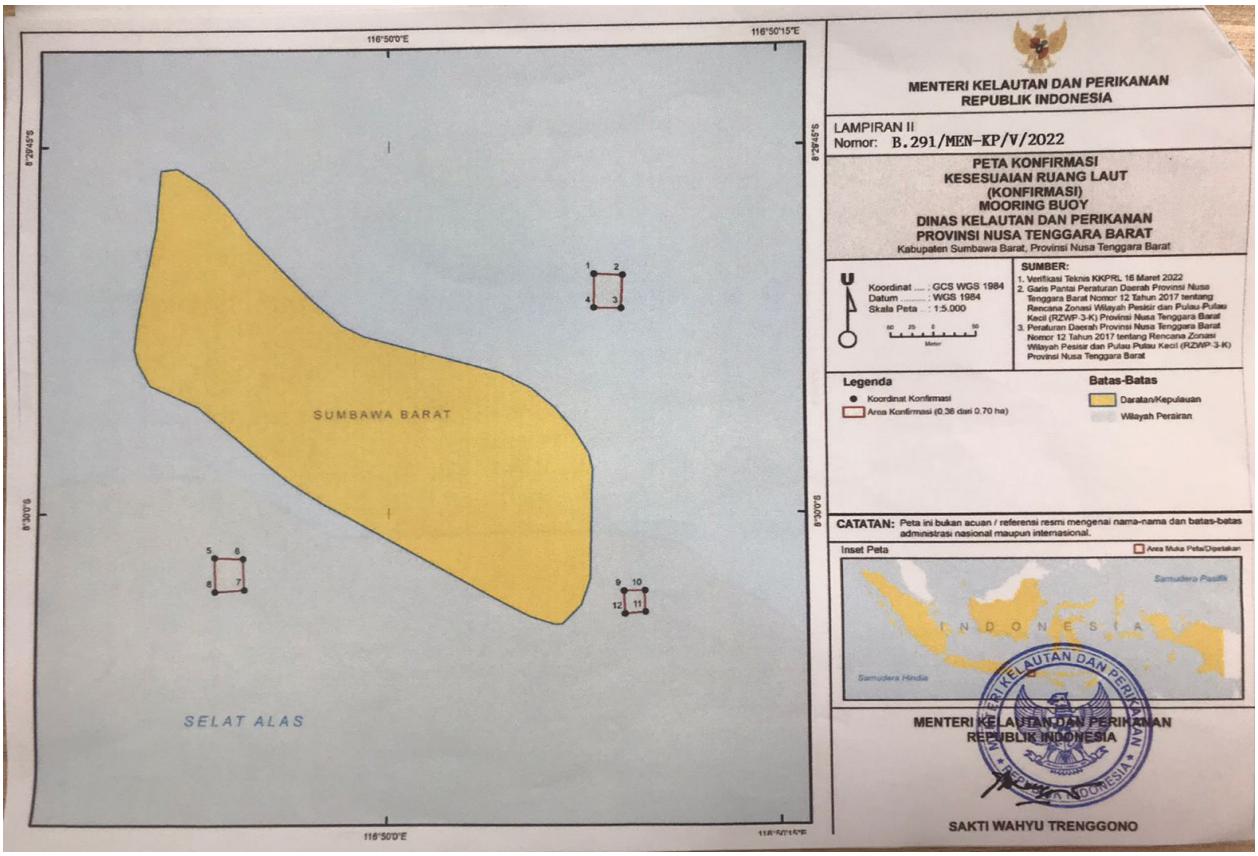
KOORDINAT DAN LUASAN

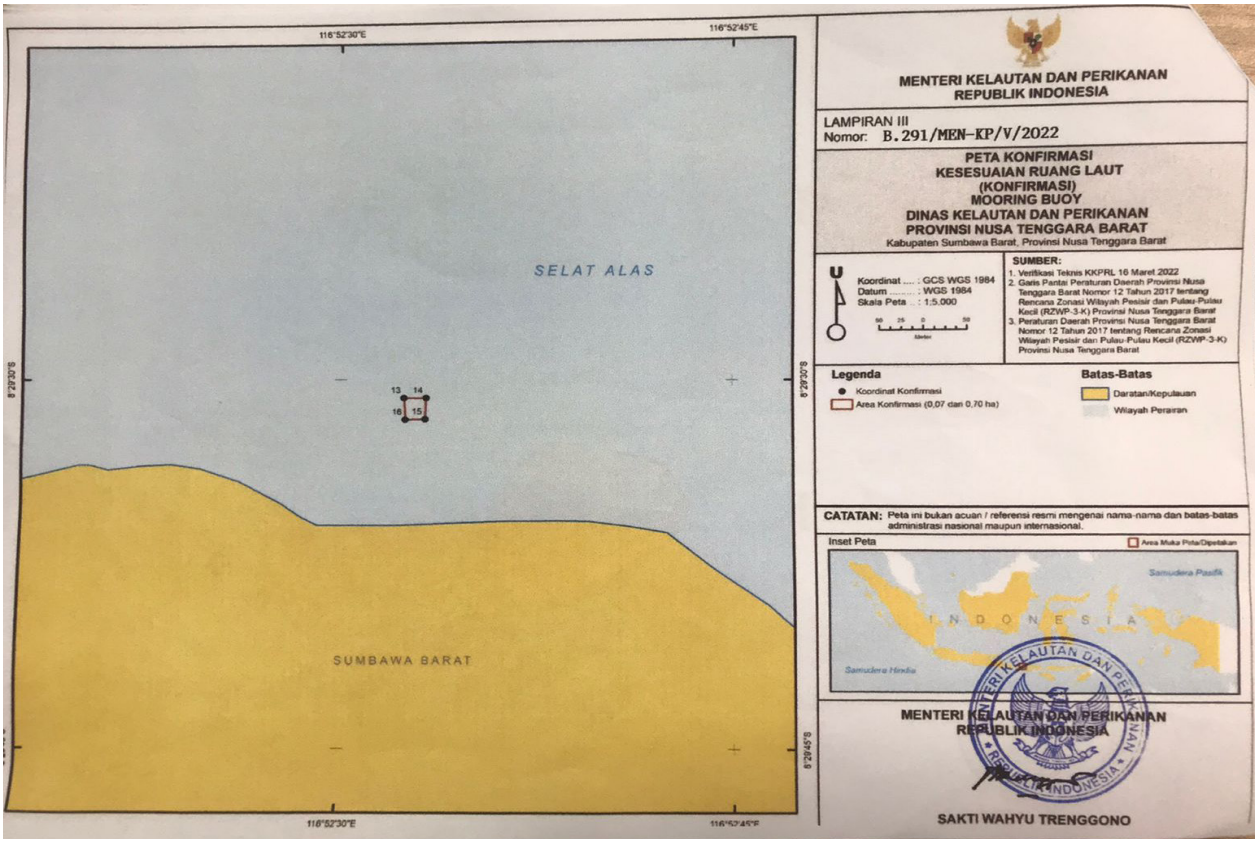
NAMA TITIK	BUJUR	LINTANG
1	116° 50' 7,950" BT	8° 29' 50,190" LS
2	116° 50' 9,060" BT	8° 29' 50,240" LS
3	116° 50' 8,990" BT	8° 29' 51,590" LS
4	116° 50' 7,930" BT	8° 29' 51,570" LS
5	116° 49' 53,260" BT	8° 30' 1,800" LS
6	116° 49' 54,380" BT	8° 30' 1,830" LS
7	116° 49' 54,430" BT	8° 30' 3,090" LS
8	116° 49' 53,270" BT	8° 30' 3,180" LS
9	116° 50' 9,060" BT	8° 30' 3,180" LS
10	116° 50' 9,860" BT	8° 30' 3,170" LS
11	116° 50' 9,880" BT	8° 30' 4,040" LS
12	116° 50' 9,100" BT	8° 30' 4,100" LS
13	116° 52' 32,390" BT	8° 29' 30,740" LS
14	116° 52' 33,220" BT	8° 29' 30,740" LS
15	116° 52' 33,190" BT	8° 29' 31,620" LS
16	116° 52' 32,440" BT	8° 29' 31,640" LS
17	116° 47' 21,500" BT	8° 31' 10,020" LS
18	116° 47' 22,290" BT	8° 31' 10,010" LS
19	116° 47' 22,310" BT	8° 31' 10,900" LS
20	116° 47' 21,540" BT	8° 31' 10,950" LS
21	116° 47' 10,160" BT	8° 31' 32,060" LS
22	116° 47' 11,030" BT	8° 31' 32,070" LS
23	116° 47' 11,010" BT	8° 31' 32,900" LS
24	116° 47' 10,220" BT	8° 31' 32,940" LS
25	116° 47' 27,510" BT	8° 31' 39,920" LS
26	116° 47' 28,320" BT	8° 31' 39,940" LS
27	116° 47' 28,310" BT	8° 31' 40,810" LS
28	116° 47' 27,560" BT	8° 31' 40,870" LS
29	116° 47' 4,290" BT	8° 33' 5,930" LS
30	116° 47' 5,100" BT	8° 33' 5,930" LS
31	116° 47' 5,120" BT	8° 33' 6,790" LS
32	116° 47' 4,350" BT	8° 33' 6,860" LS

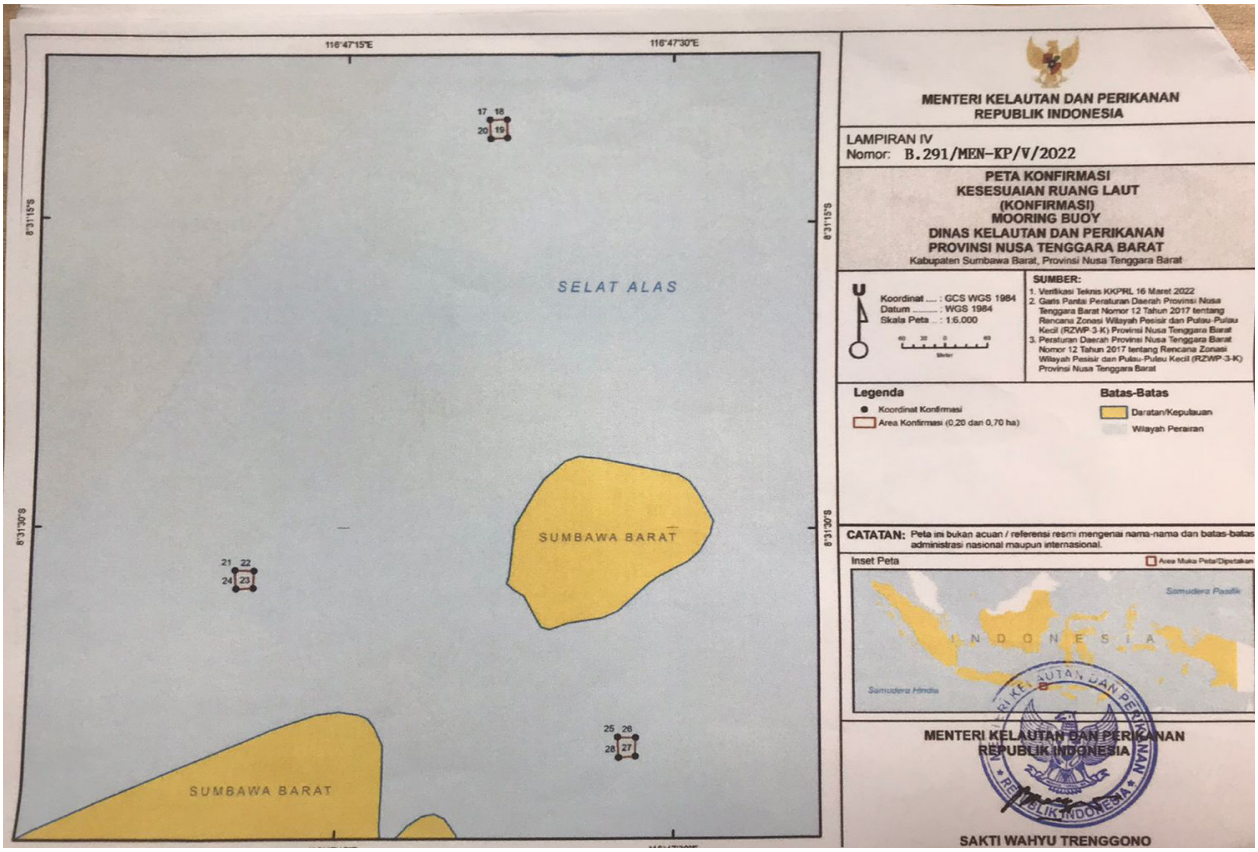
Luasan : 0,70 ha (nol koma tujuh nol hektare)

MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA

SAKTI WAHYU TRENGGONO


116°50'0"E
116°50'15"E
8°30'0"S
8°29'45"S
SUMBAWA BARAT
SELAT ALAS
1 2 3 4
5 6 7 8
9 10 11 12
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
LAMPIRAN II
Nomor: B.291/MEN-KP/V/2022
PETA KONFIRMASI
KESESUAIAN RUANG LAUT
(KONFIRMASI)
MOORING BUOY
DINAS KELAUTAN DAN PERIKANAN
PROVINSI NUSA TENGGARA BARAT
Kabupaten Sumbawa Barat, Provinsi Nusa Tenggara Barat
U
Koordinat .... : GCS WGS 1984
Datum ..... : WGS 1984
Skala Peta .. : 1:5.000
Meter
SUMBER:
1. Verifikasi Teknis KKPRL 16 Maret 2022
2. Garis Pantai Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
3. Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
Legenda
Koordinat Konfirmasi
Area Konfirmasi (0,36 dari 0,70 ha)
Batas-Batas
Daratan/Kepulauan
Wilayah Perairan
CATATAN: Peta ini bukan acuan / referensi resmi mengenai nama-nama dan batas-batas administrasi nasional maupun internasional.
Inset Peta
Area Muka Peta/Dipetakan
Samudera Pasifik
INDONESIA
Samudera Hindia
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
SAKTI WAHYU TRENGGONO


116°52'30"E
116°52'45"E
8°29'0"S
8°28'45"S
SELAT ALAS
SUMBAWA BARAT
13 14 15 16
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
LAMPIRAN III
Nomor: B.291/MEN-KP/V/2022
PETA KONFIRMASI
KESESUAIAN RUANG LAUT
(KONFIRMASI)
MOORING BUOY
DINAS KELAUTAN DAN PERIKANAN
PROVINSI NUSA TENGGARA BARAT
Kabupaten Sumbawa Barat, Provinsi Nusa Tenggara Barat
U
Koordinat .... : GCS WGS 1984
Datum ..... : WGS 1984
Skala Peta .. : 1:5.000
Meter
SUMBER:
1. Verifikasi Teknis KKPRL 16 Maret 2022
2. Garis Pantai Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
3. Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
Legenda
Koordinat Konfirmasi
Area Konfirmasi (0,07 dari 0,70 ha)
Batas-Batas
Daratan/Kepulauan
Wilayah Perairan
CATATAN: Peta ini bukan acuan / referensi resmi mengenai nama-nama dan batas-batas administrasi nasional maupun internasional.
Inset Peta
Area Muka Peta/Dipetakan
Samudera Pasifik
INDONESIA
Samudera Hindia
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
SAKTI WAHYU TRENGGONO


116°47'15"E
116°47'30"E
8°31'15"S
8°31'30"S
17 18
20 19
SELAT ALAS
SUMBAWA BARAT
21 22
24 23
25 26
28 27
SUMBAWA BARAT
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
LAMPIRAN IV
Nomor: B.291/MEN-KP/V/2022
PETA KONFIRMASI
KESESUAIAN RUANG LAUT
(KONFIRMASI)
MOORING BUOY
DINAS KELAUTAN DAN PERIKANAN
PROVINSI NUSA TENGGARA BARAT
Kabupaten Sumbawa Barat, Provinsi Nusa Tenggara Barat
Koordinat .... : GCS WGS 1984
Datum ..... : WGS 1984
Skala Peta ... : 1:5.000
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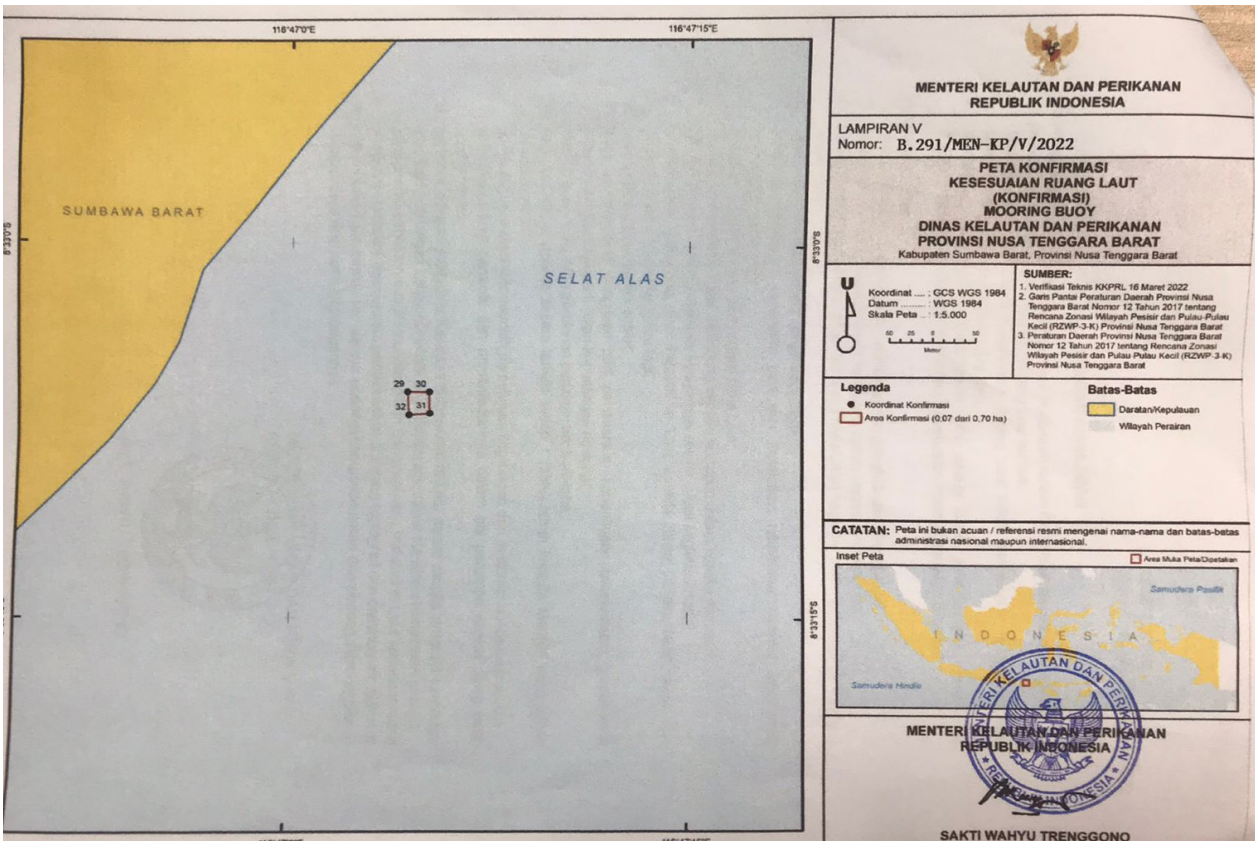
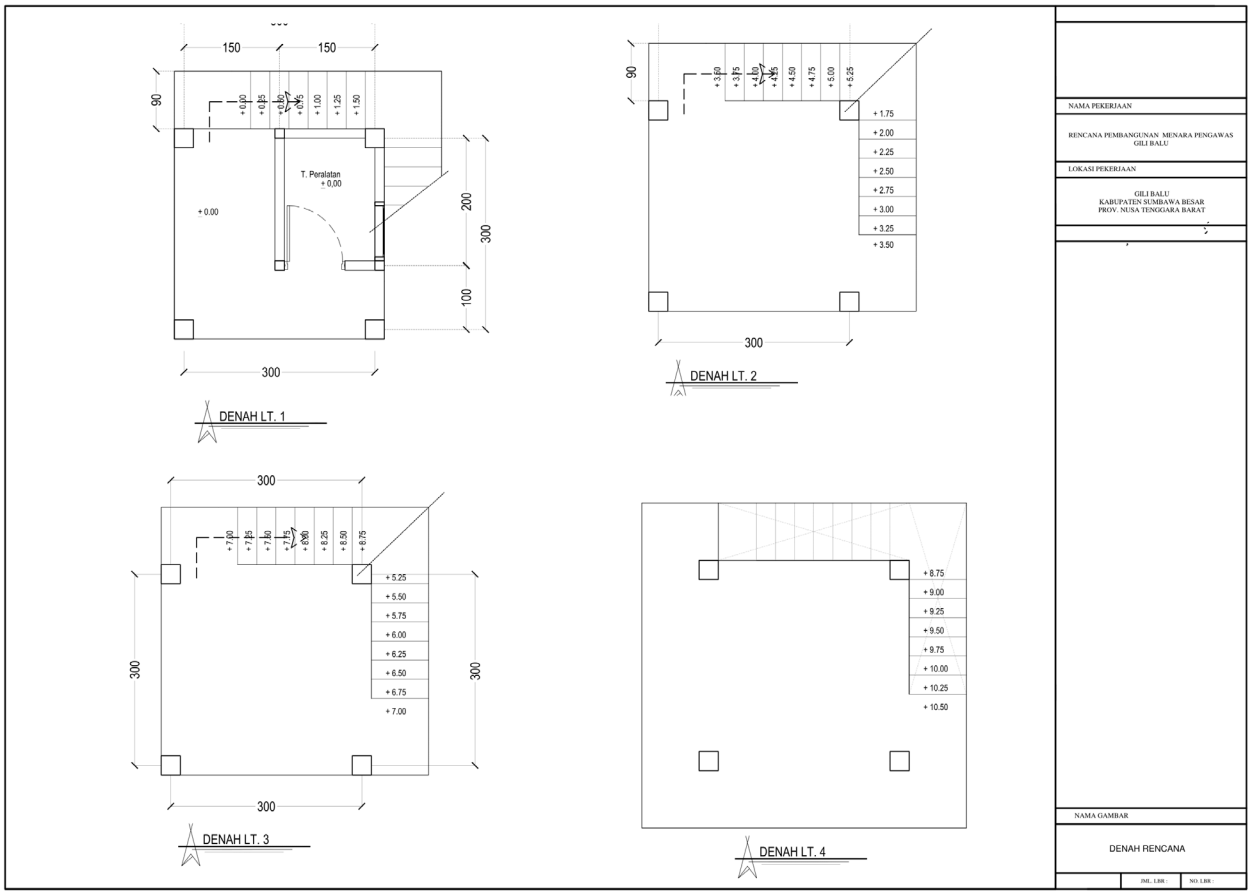
Meter
SUMBER:
1. Verifikasi Teknis KKPRL 16 Maret 2022
2. Garis Pantai Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
3. Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
Legenda
Koordinat Konfirmasi
Area Konfirmasi (0,20 dan 0,70 ha)
Batas-Batas
Daratan/Kepulauan
Wilayah Perairan
CATATAN: Peta ini bukan acuan / referensi resmi mengenai nama-nama dan batas-batas administrasi nasional maupun internasional.
Inset Peta
Area Muka Peta/Dipetakan
Samudera Pasifik
I N D O N E S I A
Samudera Hindia
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
SAKTI WAHYU TRENGGONO


118°47'0"E
116°47'15"E
8°32'0"S
8°32'15"S
SUMBAWA BARAT
SELAT ALAS
29 30
32 31
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
LAMPIRAN V
Nomor: B.291/MEN-KP/V/2022
PETA KONFIRMASI
KESESUAIAN RUANG LAUT
(KONFIRMASI)
MOORING BUOY
DINAS KELAUTAN DAN PERIKANAN
PROVINSI NUSA TENGGARA BARAT
Kabupaten Sumbawa Barat, Provinsi Nusa Tenggara Barat
Koordinat .... : GCS WGS 1984
Datum ..... : WGS 1984
Skala Peta ... : 1:5.000
60 30 0 60
Meter
SUMBER:
1. Verifikasi Teknis KKPRL 16 Maret 2022
2. Garis Pantai Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
3. Peraturan Daerah Provinsi Nusa Tenggara Barat Nomor 12 Tahun 2017 tentang Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil (RZWP-3-K) Provinsi Nusa Tenggara Barat
Legenda
Koordinat Konfirmasi
Area Konfirmasi (0,07 dari 0,70 ha)
Batas-Batas
Daratan/Kepulauan
Wilayah Perairan
CATATAN: Peta ini bukan acuan / referensi resmi mengenai nama-nama dan batas-batas administrasi nasional maupun internasional.
Inset Peta
Area Muka Peta/Dipetakan
Samudera Pasifik
I N D O N E S I A
Samudera Hindia
MENTERI KELAUTAN DAN PERIKANAN
REPUBLIK INDONESIA
SAKTI WAHYU TRENGGONO

Appendix 6

Detail Engineering Design (DED) For subproject infrastructure In Gili Balu, West Nusa Tenggara

DETAIL ENGINEERING DESIGN
RENCANA PEMBANGUNAN MENARA
PENGAWAS/PANDANG
GILIBALU



KOORDINAT MENARA PENGAWAS P. PASERAN
8°30'48.90"S,
116°47'19.74"E

KOORDINAT MENARA PENGAWAS P. NAMU
8°30'15.10"S,
116°51'2.70"E

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

LOKASI PENEMPATAN MENARA PENGAWAS

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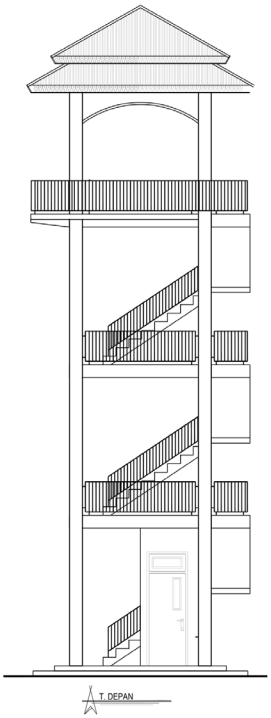

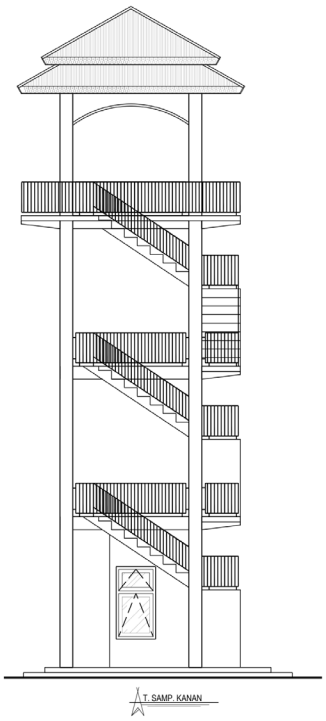

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. TAMPAK

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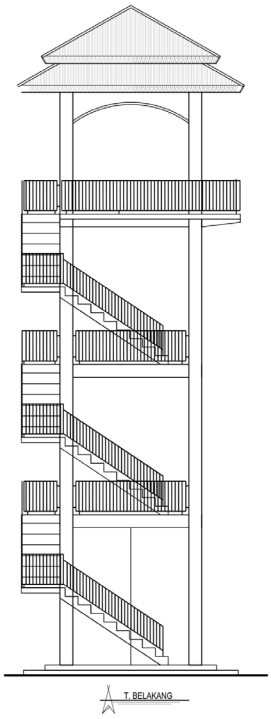
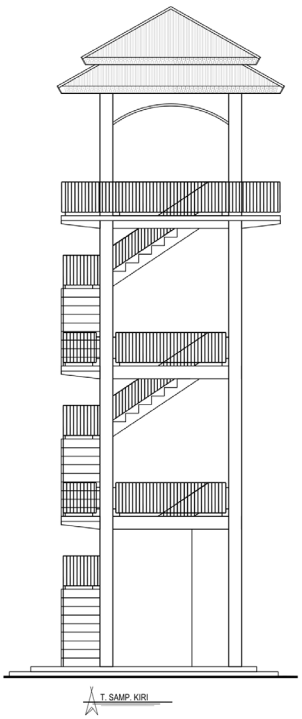


T. BELAKANG



T. SAMP. KIRI

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENCANA TAMPAK

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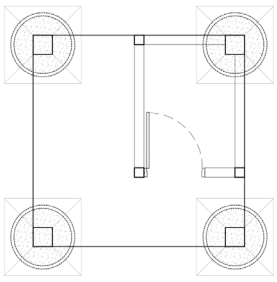
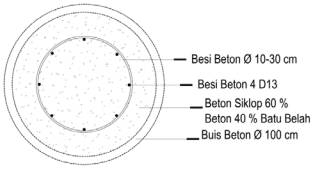
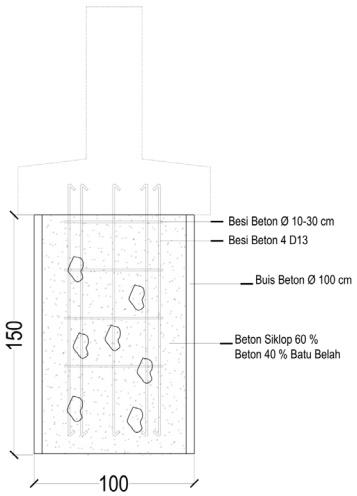


RENCANA PONDASI SUMURAN





NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. PONDASI SUMURAN

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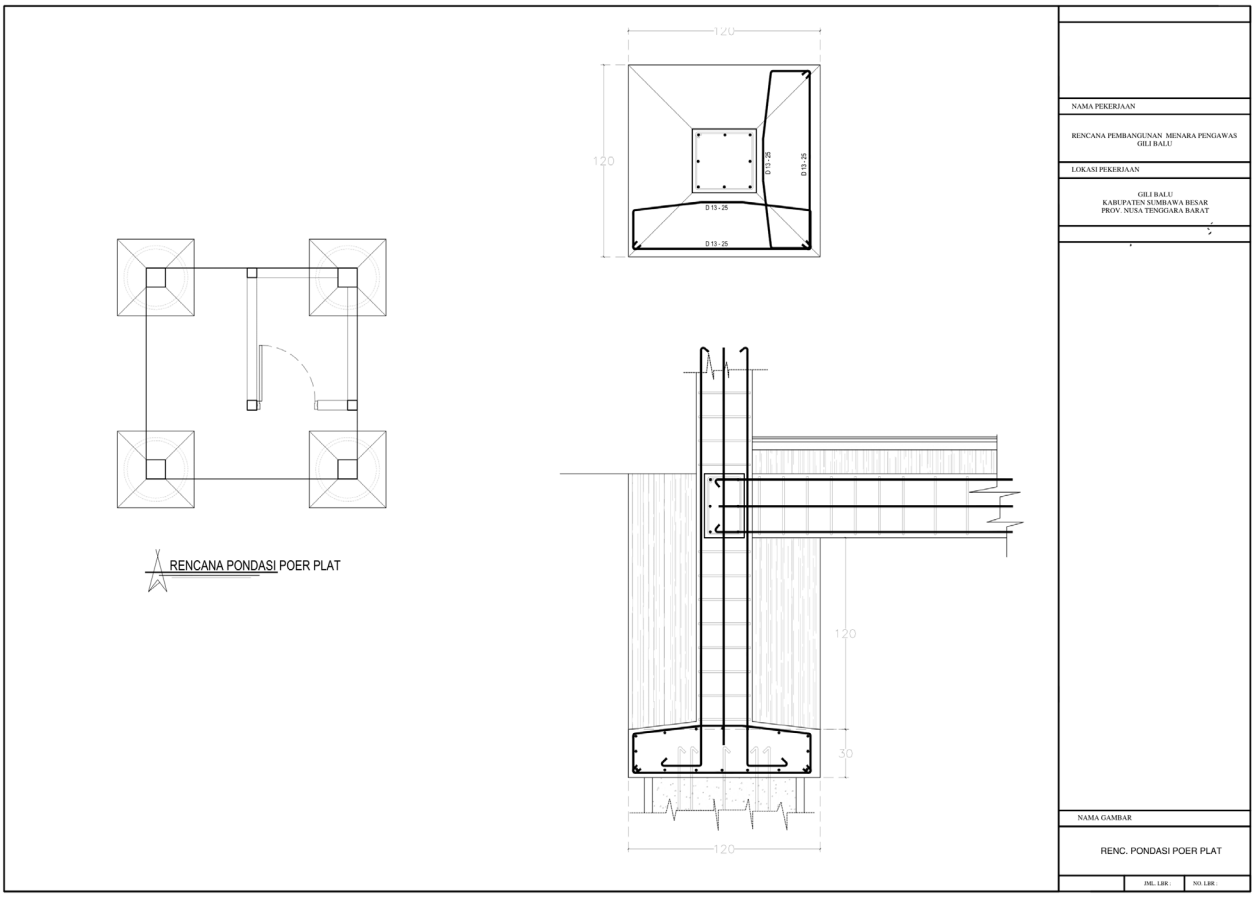
120
120
D 13 - 25
D 13 - 25
D 13 - 25
D 13 - 25
RENCANA PONDASI POER PLAT
120
30
120
NAMA PEKERJAAN
RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU
LOKASI PEKERJAAN
GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT
NAMA GAMBAR
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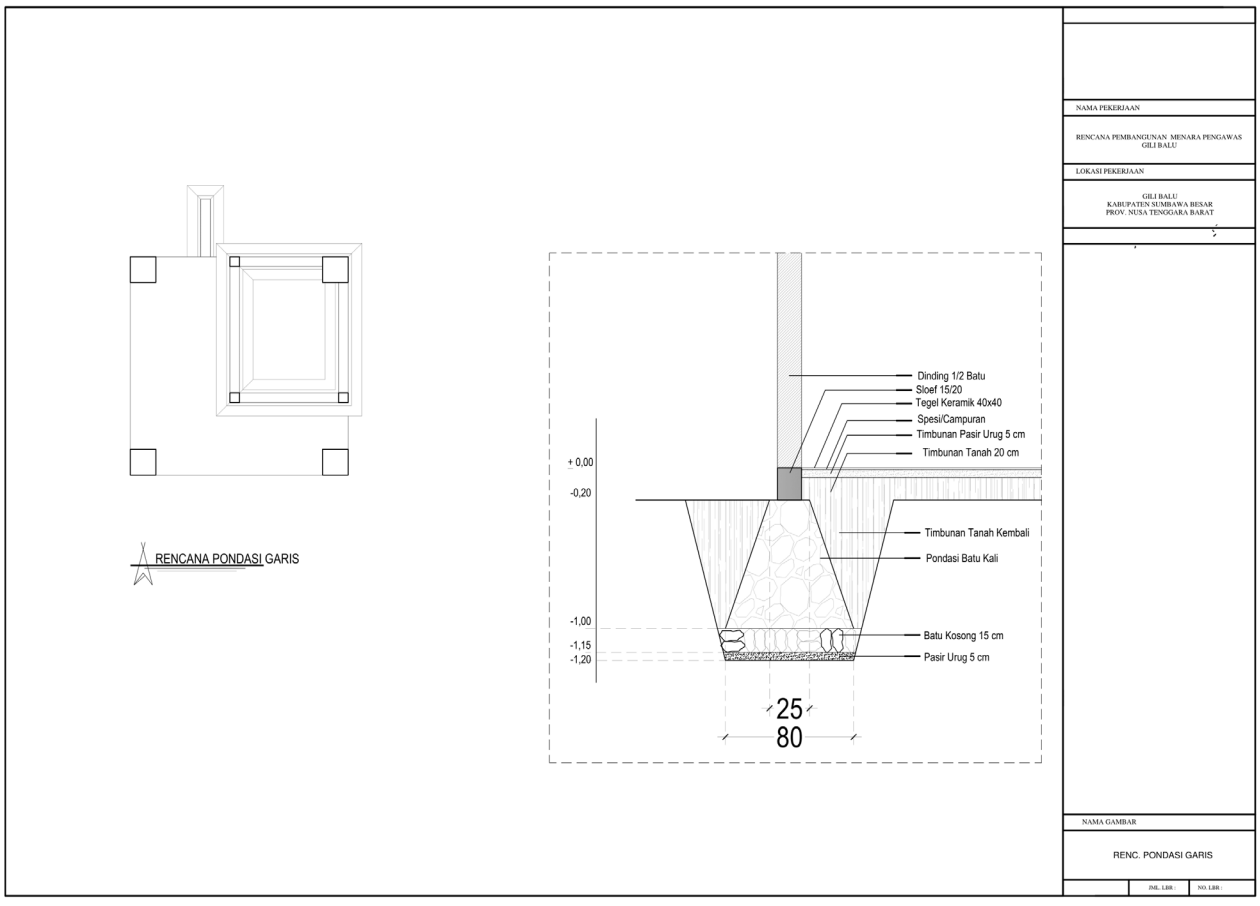
RENCANA PONDASI GARIS
Dinding 1/2 Batu
Sloef 15/20
Tegel Keramik 40x40
Spesi/Campuran
Timbunan Pasir Urug 5 cm
Timbunan Tanah 20 cm
+ 0,00
-0,20
Timbunan Tanah Kembali
Pondasi Batu Kali
-1,00
-1,15
-1,20
Batu Kosong 15 cm
Pasir Urug 5 cm
25
80
NAMA PEKERJAAN
RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU
LOKASI PEKERJAAN
GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT
NAMA GAMBAR
RENC. PONDASI GARIS
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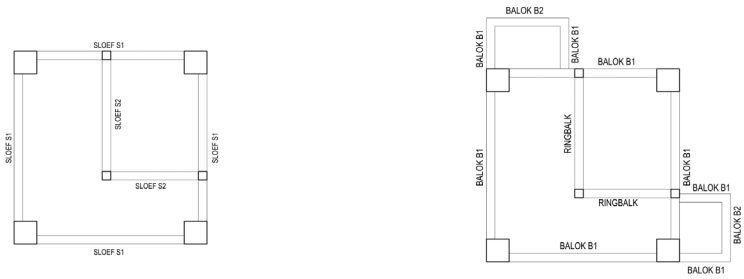
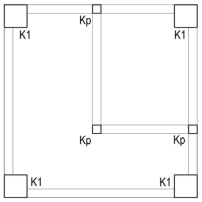


RENCANA SLOEF

RENCANA BALOK LT.1



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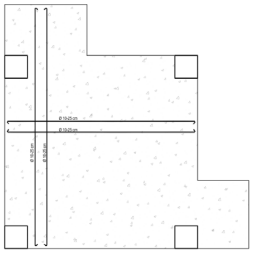

RENCANA PLAT LT.2

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. STRUKTUR LT. 1

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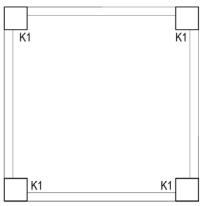

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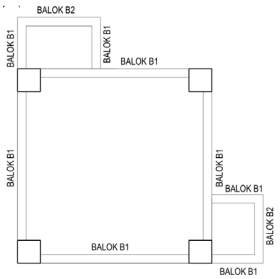

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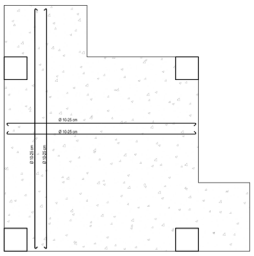

RENCANA PLAT LT.3

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

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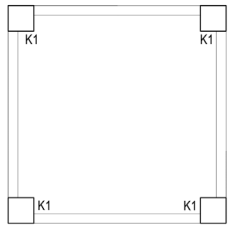

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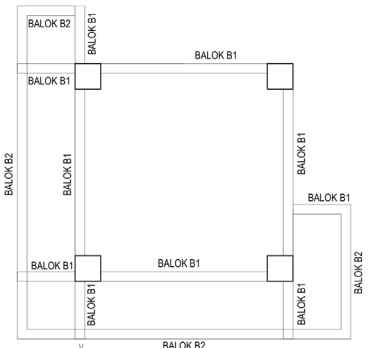

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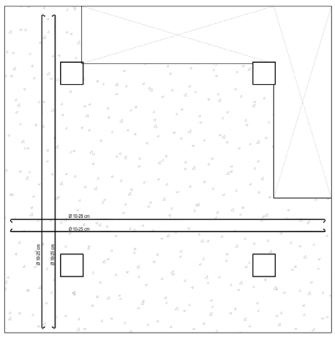

RENCANA PLAT LT.4

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. STRUKTUR LT. 3

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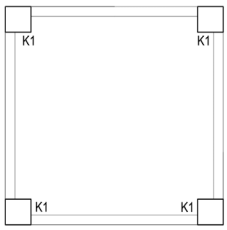

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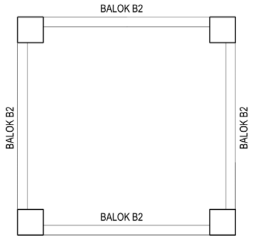
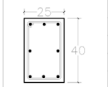


RENCANA KOLOM LT.4

SLOEF



S1		
Tulangan Atas	3 Ø 14	
Tulangan Tengah	2 Ø 14	
Tulangan Bawah	3 Ø 12	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

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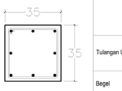
Tulangan Atas	2 Ø 12	
Tulangan Bawah	2 Ø 12	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

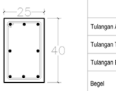
KOLOM



K1		
Tulangan Utama	8 Ø 14	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

K2		
Tulangan Utama	4 Ø 12	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

BALOK



B1		
Tulangan Atas	3 Ø 14	
Tulangan Tengah	2 Ø 14	
Tulangan Bawah	3 Ø 12	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

B2		
Tulangan Atas	2 Ø 12	
Tulangan Bawah	2 Ø 12	
Begel	Tumpuan	Ø 8 - 15
	Lapangan	Ø 8 - 20

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. STRUKTUR LT. 4

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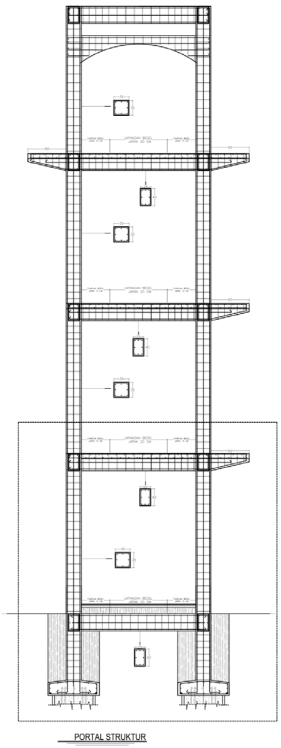
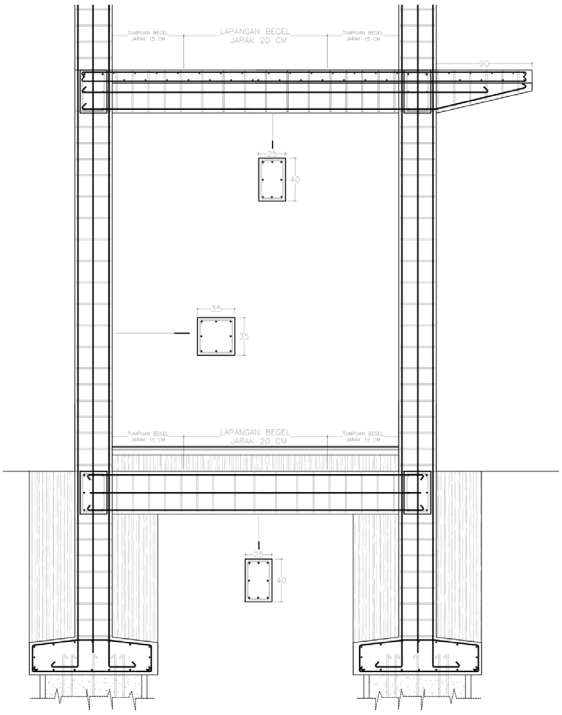


PORTAL STRUKTUR



NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

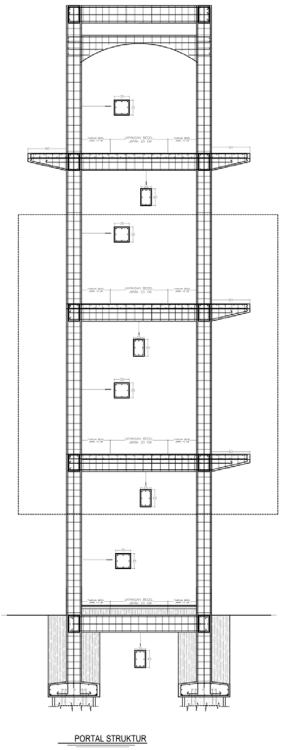
LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

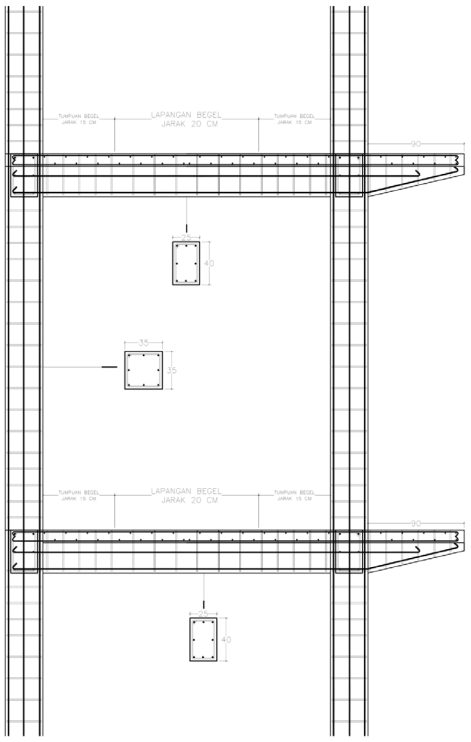
NAMA GAMBAR

DETAIL PORTAL STRUKTUR

JML. LBR. | NO. LBR.



PORTAL STRUKTUR



NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

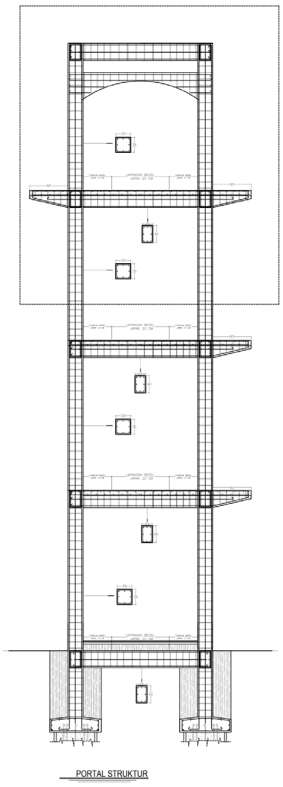
LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

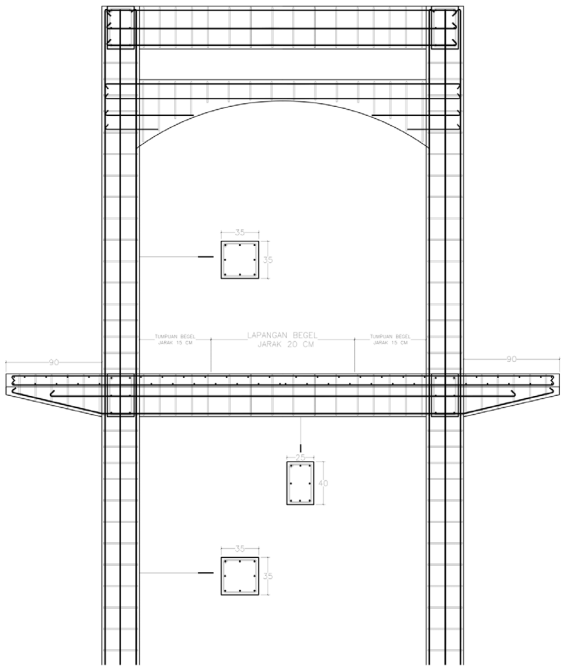
NAMA GAMBAR

DETAIL PORTAL STRUKTUR

JML. LBR. | NO. LBR.



PORTAL STRUKTUR



NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

DETAIL PORTAL STRUKTUR

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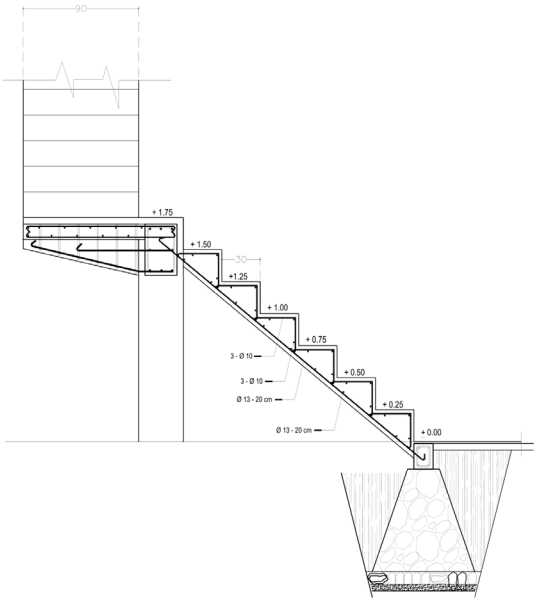

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

DETAIL TANGGA

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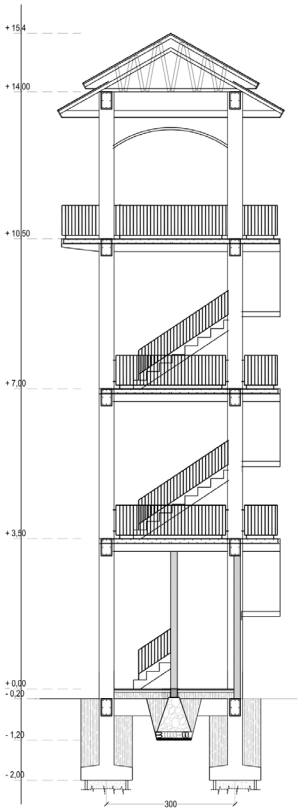


NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

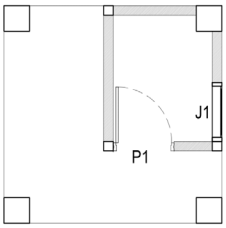
GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

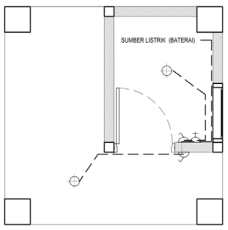
POTONGAN

JML. LBR. | NO. LBR.

RENCANA KERAMIK LT.1



RENCANA PINTU DAN JENDELA LT.1



KODE	KETERANGAN :
	SAKLAR GANDA = 1 BUAH
	SAKLAR TUNGGAL = 2 BUAH
	LAMPU PIJAR = 4 BUAH
	KABEL NYM 3X2,5 MM

RENCANA INSTALASI LISTRIK

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

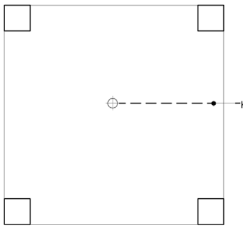
GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. LANTAI, RENC. PINTU
DAN JENDELA DAN
RENC. INSTALASI LISTRIK LT. 1

JML. LBR. | NO. LBR.

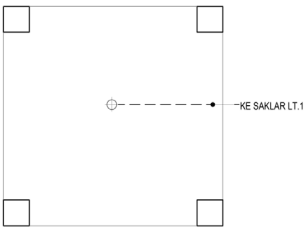
RENCANA KERAMIK LT.2



KODE	KETERANGAN
	SAKLAR GANDA = 1 BUAH
	SAKLAR TUNGGAL = 2 BUAH
	LAMPU PIJAR = 4 BUAH
	KABEL NYM 3X2,5 MM

RENCANA INSTALASI LISTRIK LT.2

RENCANA KERAMIK LT.3



KODE	KETERANGAN
	SAKLAR GANDA = 1 BUAH
	SAKLAR TUNGGAL = 2 BUAH
	LAMPU PIJAR = 4 BUAH
	KABEL NYM 3X2,5 MM

RENCANA INSTALASI LISTRIK LT..3

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

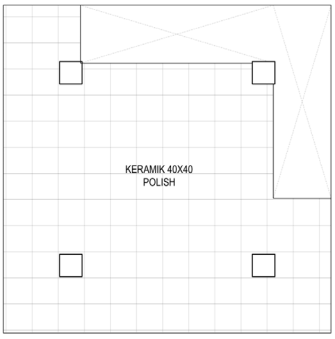
LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

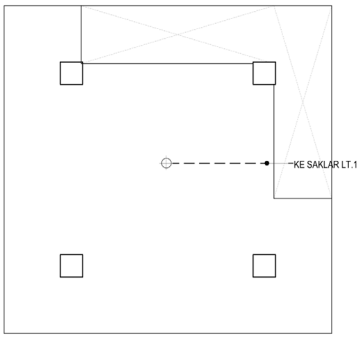
NAMA GAMBAR

RENC. LANTAI DAN INSTALASI
LISTRIK LT.2 DAN LT. 3

JML. LBR : NO. LBR :



RENCANA KERAMIK LT.4



RENCANA INSTALASI LISTRIK LT.4

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS
GILI BALU

LOKASI PEKERJAAN

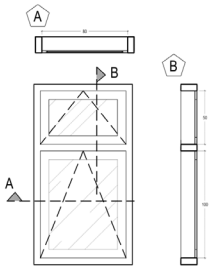
GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENC. LANTAI DAN INSTALASI
LISTRIK LT. 4

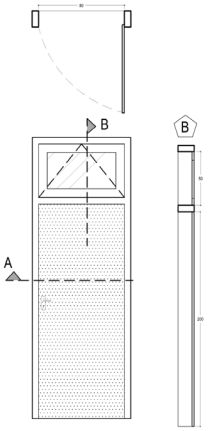
JML. LBR : NO. LBR :

TYPE	J1	1 Unit



KUSEN	RANGKA ALUMINIUM 4"X1.2MM
	(POWDER COATING PUTIH)
DAUN JENDELA BOUVEN	RANGKA ALUMINIUM 4"X1.2MM
	(POWDER COATING PUTIH)
	CLEAR GLASS 5 MM
AKSESORIS	ENGSEL
	HANDLE
	KAIT ANGIN

TYPE	P1	1 Unit



KUSEN	RANGKA ALUMINIUM 4"X1.2MM
	(POWDER COATING PUTIH)
DAUN JENDELA BOUVEN	RANGKA ALUMINIUM 4"X1.2MM
	(POWDER COATING PUTIH)
	CLEAR GLASS 5 MM
DAUN PINTU	DOUBLE MULTIPLEKS @10 mm
	FINISHING HPL (BADAN PINTU DAN 4 SISI)
	TEBAL PINTU FINISH 20 MM
AKSESORIS	ENGSEL
	HANDLE
	KAIT ANGIN

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

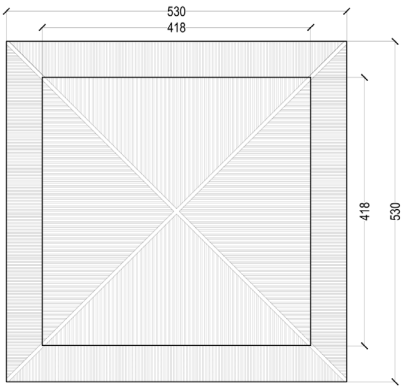
LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

DETAIL KUSEN DAN JENDELA

JML. LBR : NO. LBR :



NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

RENCANA ATAP

JML. LBR : NO. LBR :

NAMA PEKERJAAN

RENCANA PEMBANGUNAN MENARA PENGAWAS GILI BALU

LOKASI PEKERJAAN

GILI BALU
KABUPATEN SUMBAWA BESAR
PROV. NUSA TENGGARA BARAT

NAMA GAMBAR

3 DIMENSI

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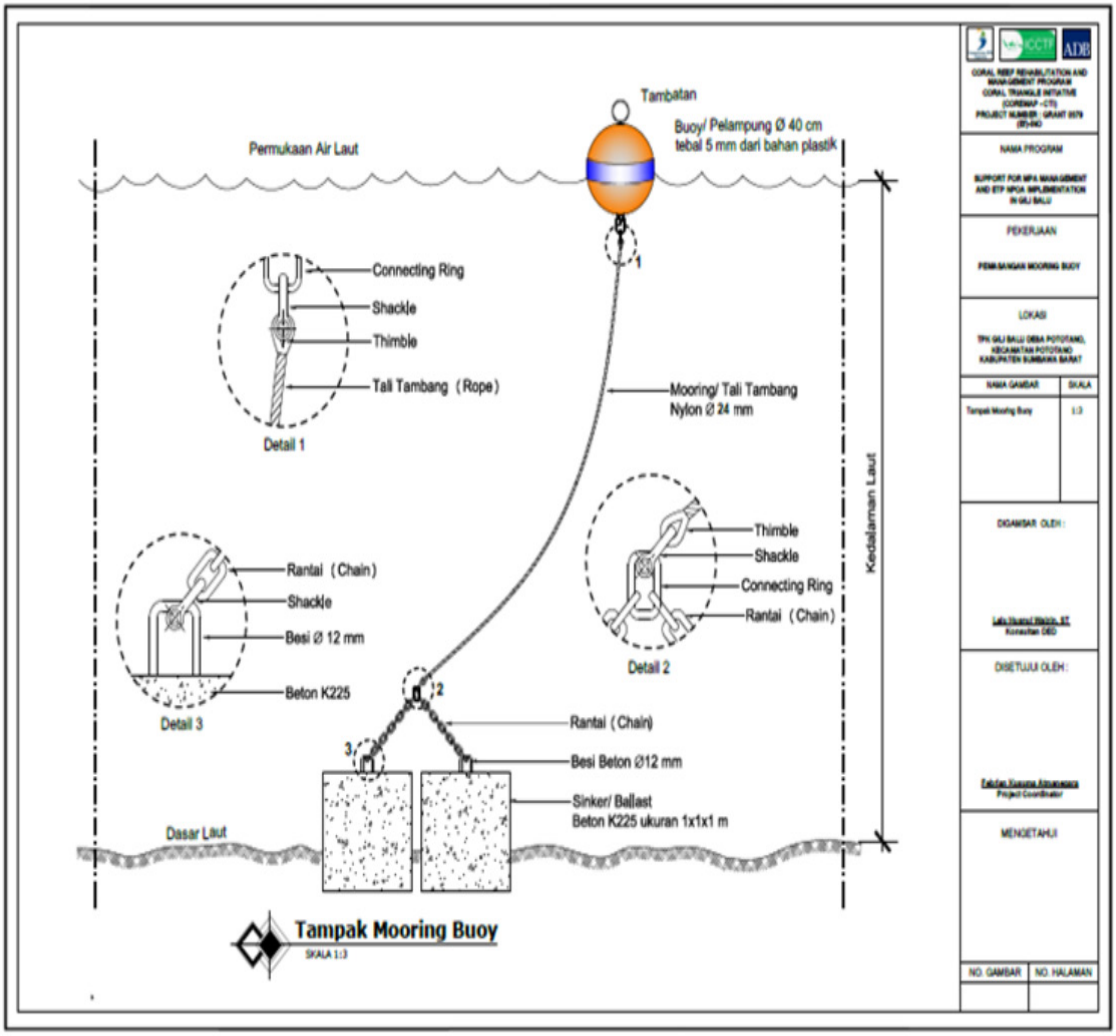

Appendix 7

Grievance Redress Mechanism (GRM) Form

Grievance Redress Mechanism (GRM) form

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

Appendix 8

Minute of Meeting of Public Consultation In Gili Balu

COREMAP GP3 ECO-TOURISM INFRASTRUCTURE DEVELOPMENT COORDINATION MEETINGS

Thursday, August 12, 2021

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

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

    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**
    - 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

LAMPIRAN
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 LOCATION GILI BALU

Wednesday, September 22, 202

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

Indonesia: Coral Reef Rehabilitation and Management: Coral Triangle Initiative Project (INO- COREMAP-CTI) – Gili Balu

Initial Environmental Examination

Kementerian PPN/ Bappenas

ICCTF Indonesia Climate Change Trust Fund

ADB