



ADAPTATION FUND

## **REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND**

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat 1818 H Street NW  
MSN N7-700  
Washington, D.C.,  
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# PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

## PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category: **Small-sized Project/Programme**

Country/ies: **Indonesia/Asia-Pacific**

Title of Project/Programme: **Building Climate Changes Resiliency for Small and Remote Islands in Pangkajene Island (Pangkep) District**

Type of Implementing Entity: **National Implementing Entity (NIE)**

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

Executing Entity/ies: **Resilient-Climate Change Adaptation Consortium (Konsorsium Tangguh Adaptasi Perubahan Iklim/(Kontan API - DFW Indonesia, Lembaga Maritim Nusantara, Yayasan Nypah Indonesia)**

Amount of Financing Requested: **USD 979.548 (in U.S Dollars Equivalent)**

### **Project / Programme Background and Context:**

The archipelago area of Pangkajene islands Regency (Pangkep) consists of 133 islands spread over 11,464.44 km<sup>2</sup> of water, wider than the land area. Pangkep has 4 island districts, two of which are Liukang Tangaya District and Liukang Kalmas District.

These two sub-districts are remote with difficult and high-risk living conditions because their location is far from mainland Kab. Pangkep. Liukang Tangaya District consists of 54 small islands inhabited by 18,413 people, while Liukang Kalmas District only has 18 islands then inhabited by 14,753 inhabitants. These two sub-districts interact and depend on other provinces for their livelihood and then rely on shipping by people's boats, which are not supported by the availability of weather information and the lack of basic infrastructure for development, such as public facilities, social facilities, and administrative services. People in both sub-districts have a low adaptive capacity to disasters and climate change.

The KLHK Vulnerability Index Data Information System (SIDIK) in 2018 stated that 9 villages in Tangaya and 7 in Kalmas had a moderate vulnerability. However, based on the update by the Nusantara Maritime Institute (Lemsa) and Nypah Indonesia in 2022 concerning the 2020 Village Potential (Potensi Desa) adapted to the context of small islands, the vulnerability status has increased too high. Only islands close to the mainland of Pangkep Regency, islands in Liukang Tupa'biring District, are in the low vulnerability category.

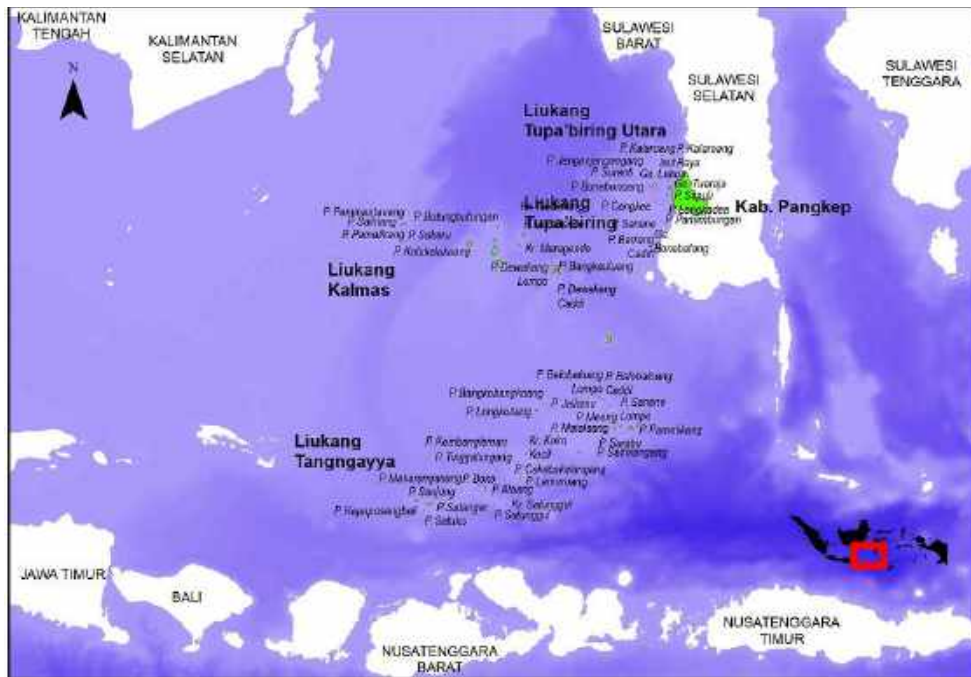


Figure 1. Regional Map of Pangkajene Islands Regency (Pangkep)

The existing national system in measuring risk and vulnerability in Indonesia, whether the one developed by Ministry of Environment and Forestry (MoEF) or National Disaster Management Agency (NDMA), was not sensitive and did not represent the existing condition on small and remote island areas yet. For example, the vulnerability index data information system (SIDIK) of MoEF in 2018 states that 9 villages in *Liukang Tanggaya* and 7 in *Liukang Kalmas* of *Pangkep Regency* have moderate vulnerability. This is because the SIDIK was based on only flood risk by counting how many households live along the riverbanks, while on the small islands we barely can find any river. So, we (Lembaga Maritime Nusantara and Nypah Indonesia) tried to adjust the parameter to the context of small islands but still using the same source of dataset (PODES), but with the updated version (PODES 2020). The result shows that the vulnerability status increased from moderate to high, While *Liukang Tupa'bing*, remain in the low vulnerability category because they are located close to the mainland of Pangkep Regency,

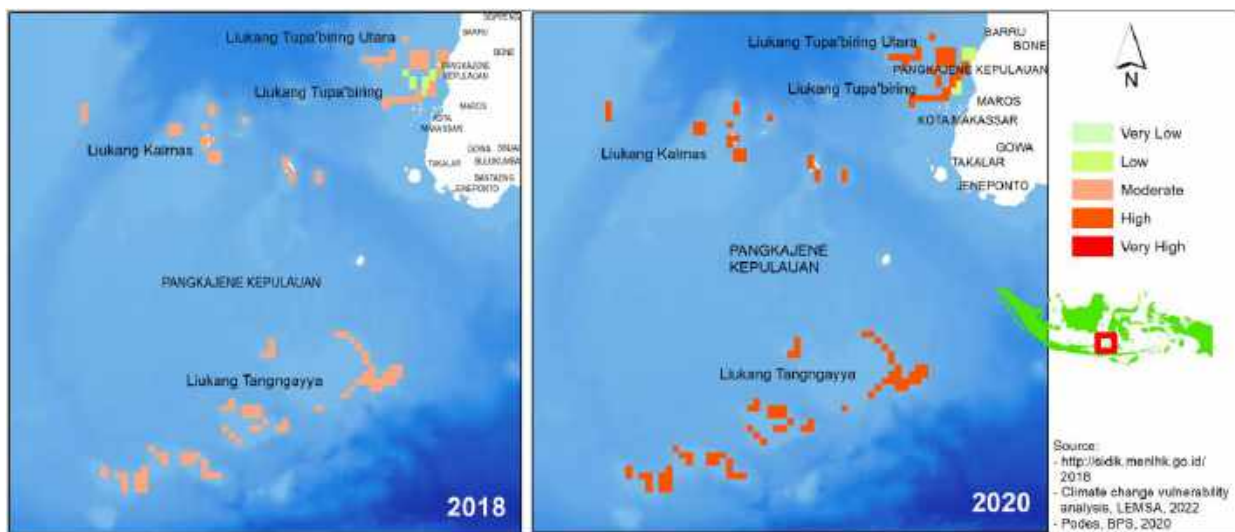


Figure 2. Climate Change Vulnerability Map of Small and Remote Islands of Pangkep Regency

Furthermore, it has been well known that living on a small and remote island will face a unique challenge not only from the changing weather and climates but also from development itself, which makes all of the local communities vulnerable, and it can undo the existing development. As the background context for this proposed project, then we describe all of these issues in following subtopics:

## **DEVELOPMENT CHALLENGES IN REMOTE AND SMALL ISLANDS**

### **DEVELOPMENT IMPARTIALITY**

**Isolated location and not development priority.** Being located far from the mainland of Pangkep Regency, 30-40 hours away by motorboat, residents in Liukang Tangayya Sub-district mostly carry out their economy and fulfil their daily needs by going to East Lombok Regency, West Nusa Tenggara (NTB)<sup>1</sup> Province. Meanwhile, the residents of Liukang Kalmas Sub-district, located an average of 25 hours away by motorboat to the mainland of Pangkep Regency, depend on Balikpapan, East Kalimantan Province; East Lombok, West Nusa Tenggara; and the cities of Pangkep and Makassar in South Sulawesi. The two sub-districts are also not a priority for development as they are not highly populated areas. The population in the Pangkep Regency represents only 18% of the total population of Pangkep Regency.

**Sufficient data is not available.** Development in both sub-districts faces significant problems, especially related to the development of adaptation strategies against climate change due to the limited data and information. Data and information about the weather in both sub-districts, for example, are not available, while all aspects of life in both sub-districts rely on or involve sailing activities. In addition, the Pangkep Regency government still does not have data and plannings related to disaster management and climate change. According to the Sustainable Development Goals (SDGs) of the RPJMD 2021-2026 of Pangkep Regency, it is known that holistic handling of disaster risk has not been developed and implemented at all levels. Efforts in this direction are still in the category of unavailability of data and have not been actualized.

### **BASIC INFRASTRUCTURES**

Located in remote areas and only accessible by sea, along with limited facilities and infrastructure, the communities of Liukang Tangaya and Liukang Kalmas are facing challenges in providing their basic needs. These problems include: (1) clean water availability, (2) food, (3) energy / fuel, and (4) sanitation. To obtain their clean water needs, the communities in both kecamatan collect rainwater and dig wells, which can be muddy and brackish during the dry season. In recent years the community has been buying bottled water to meet their water needs, which created a new issue such as the increase of plastic waste.

To obtain their basic food needs, people on the islands of Liukang Kalmas must sail for 20-30 hours over the sea and face the dangers of waves. They buy rice, vegetables, cooking oil and other basic needs in Makassar, Balikpapan, and East Lombok, which are also places to trade their community products (sea cucumbers, salted fish, live fish).<sup>2</sup> The situation gets tougher during the west season (extreme weather season). The community can experience shortages of their daily necessities.

To obtain the fuel, people in both sub-districts would buy it in Makassar, Balikpapan, and East Lombok. Fuel shortages have occurred several times such as in January 2021, which resulted in the fishermen of Sapuka Island, Liukang Tangaya, not being able to go to sail/fishing for 10 days because of lack of fuel.<sup>3</sup> Island communities also use fuel as a source of electricity, and it

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<sup>1</sup> Lemsaspatial data processing results, 2022

<sup>2</sup> cf. Lemsaspatial facilitator observations in 2009 and 2013 and interviews with residents of Sailus Besar Island in 2019 and 2022

<sup>3</sup> For example, reported by Fajar.co.id

remains the only source of lighting. Purchasing fuel across provinces without a proper authorization is common among the communities in both sub-districts.

The Pangkep Regency Island communities experience poor sanitation conditions. In addition to water shortages, households generally do not have toilets. In 2019, the number of households without toilets in Liukang Tangaya accounted for 87%, Liukang Kalmas 91%, Tupabbiring 67% and Tupabiring Utara 57%.<sup>4</sup> The healthcare infrastructure is also very limited in both sub-districts (see COVID-19 section).

Health infrastructure in Liukang Kalmas and Liukang Tangaya sub-districts is very minimal. In 2020, out of a total of 9 inhabited islands in Liukang Tangaya District, 8 of them have the status of availability and access to health facilities "very difficult". In Liukang Kalmas District, 7 inhabited islands have the status of accessibility and availability of health facilities as "very difficult" and only 2 islands have health center facilities.<sup>5</sup>

## **ACCESSIBILITY**

Development of the small and remote islands in Pangkep Regency is hindered by their isolated location and their reliance entirely on maritime transportation. High dependence on fuel availability, pioneer ships that are only available once a month, extreme weather, and limited livelihood options make them susceptible to climate change. This is exacerbated by the absence of adequate data and information on weather conditions, making sailing/fishing activities in Liukang Tangaya and Liukang Kalmas at high risk. Liukang Kalmas and Liukang Tangaya also have poor communication networks. In 2019, only one of the seven populated islands in Liukang Kalmas with good cellular signal connection while all the remaining islands had either weak or no cellular signal. Meanwhile in Tangaya, 5 out of 9 populated islands have no cellular signal and the remainder has a weak signal.<sup>6</sup>

## **COVID-19**

There is no data available concerning the impact of the COVID-19 outbreak on the islands of Pangkep Regency. However, with the economic downturn at the national level due to COVID-19, it can be assumed that Liukang Kalmas and Liukang Tangaya sub-districts, as remote areas, will also be affected by the COVID-19 pandemic. Pandemi COVID-19 berdampak langsung terhadap kehidupan masyarakat Liukang Tangaya. At the beginning and peak of the pandemic, fishermen selling live fish could not sell their catch at all because of the prohibition to enter the mainland, and conversely, collectors from outside the island could not enter the island. This condition lasted for months when the government imposed "restrictions on community activities". The two provinces that play an important role in the livelihoods of the Liukang Kalmas and Liukang Tangaya communities, East Kalimantan and NTB, are severely affected by this pandemic. In 2020, the poverty population of East Kalimantan Province increased by 230,260 people or 6.10%<sup>7</sup>, and NTB Province by 32,150 people or 4.5%.<sup>8</sup> Healthcare infrastructure in Liukang Kalmas and Liukang Tangaya sub-districts also remains very limited. In 2020, among the nine populated islands in Tangaya, eight of them have "very difficult" accessibility and availability for health facilities. While in Kalmas, all seven populated islands reported very difficult accessibility and the availability of healthcare facilities, with only two of them having a Puskesmas (community health center).<sup>9</sup>

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<sup>4</sup> <http://bdt.tnp2k.go.id/>

<sup>5</sup> BPS Pangkep, op.cit

<sup>6</sup> Central Statistics Bureau Pangkep, 2020.

<sup>7</sup> East Kalimantan Regional Fiscal Study, DJPb, Quarter III 2020

<sup>8</sup> NTB Regional Fiscal Study, DJPb, Quarter III 2020

<sup>9</sup> Central Statistics Bureau Pangkep, op.cit

## WASTE

Marine debris, especially plastic waste, threatens coastal ecosystems. Plastic itself is one of the factors that affect climate change, especially in relation to carbon contribution. There is no waste management system in the Pangkep Islands. Public awareness in handling waste considerably low. Waste handled by the household by burying it into the ground, burning it, or throwing it into the sea. The management of marine debris is a global commitment including the Indonesian government. The management of waste in Small Islands will contribute to increasing environmental resilience in the face of climate change.

## **CLIMATE CHANGES IMPACT AND ENVIRONMENT CONTEXT**

### **CLIMATE CHANGES SITUATION**

The data presented below was collected from various accessible sources. There is no adequate climatological data covering the Liukang Kalmas and Liukang Tangaya areas available from the government climatology data provider.

**Rainfall changes.** Based on data obtained from CHIRPS Daily, rainfall in Liukang Kalmas and Liukang Tangaya areas in the last 30 years (1981-2000 and 2010-2020) has been relatively similar over time. Spikes in rainfall occurred in only 4 years: 1981, 1984, 1999 and 2010. The annual rainfall averaged 7,364 mm or considerably above the Indonesian average annual rainfall of 2000-3000 mm.<sup>10</sup> The high rainfall in both sub-districts has helped communities as their water sources. However, the soil condition in Liukang Kalmas and Liukang Tangaya islands can be expected to have poor water retention, which resulting in murky and brackish wells.

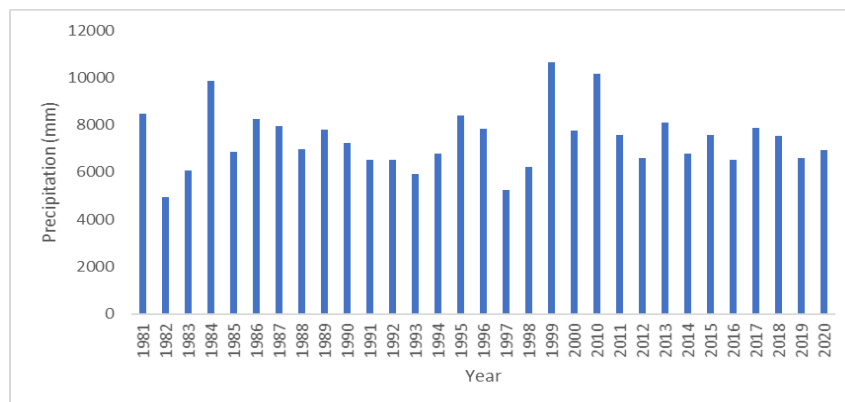


Figure 3. Graph of Rainfall in the Districts of Liukang Kalmas and Liukang Tangaya 1981-2020

Temperature changes. Based on temperature data recorded from 1981-2021, temperatures in Liukang Kalmas and Liukang Tangaya have increased steadily over time. The lowest temperature occurred in 1982 at 26.75°C and the highest temperature occurred in 2016 at 28.04°C (Figure 3).<sup>11</sup> It is well known that the increase in temperature is the main symptom of climate change, and people living in coastal areas are very vulnerable to climate change, especially for the communities like those in Liukang Kalmas and Liukang Tangaya where their lives are highly dependent on sea conditions. The increasing temperature trend is generally in

<sup>10</sup> [CHIRPS: Rainfall Estimates from Rain Gauge and Satellite Observations | Climate Hazards Center - UC Santa Barbara \(ucsb.edu\)](https://climate.geog.udel.edu/climatepedia/entry/chirps/)

<sup>11</sup> <https://power.larc.nasa.gov/data-access-viewer/>

line with the projected temperature increase in South Sulawesi land by BMKG, which states that there will be an increase of 0.9-0.95°C throughout 2032-2040.<sup>12</sup>

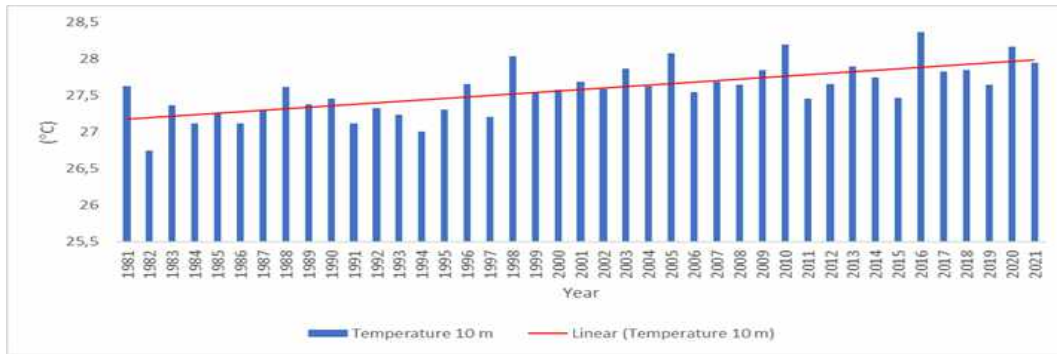


Figure 4. Temperature Trends Period 1981-2021

Sea level rise. Based on the CSIRO sea level rise analysis, there has been an increasing trend of global sea level rise of 79.5 mm in the last 100 years, from 1880 to 2015. In the coastal waters of Pangkep, based on data between 1990 and 2021, there has been an increase of 88-92 mm.<sup>13</sup>

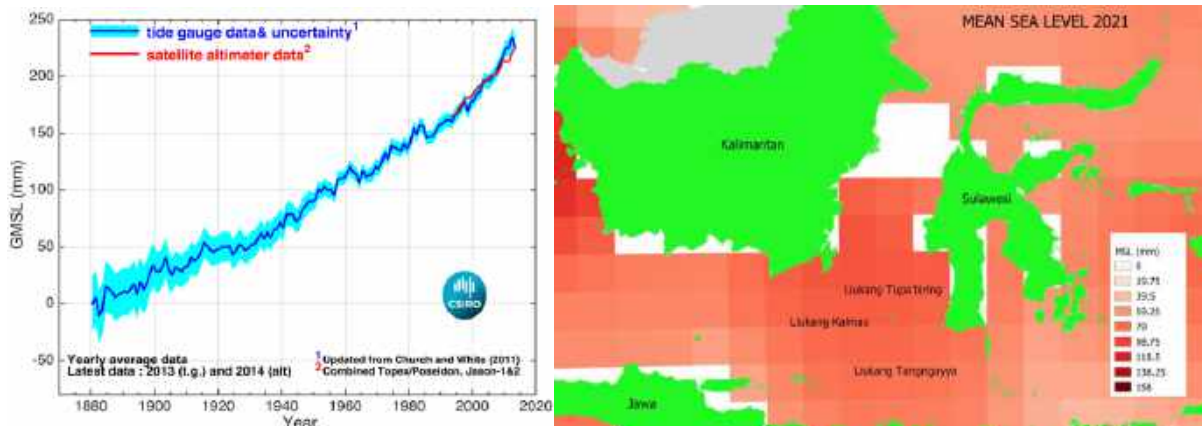


Figure 5. Grafik Tren mean Sea Level Global dan Peta MSL Wilayah Perairan Liukang

The impact of sea level rise will first and foremost affect coastal communities, especially those who depend on marine products like those in Liukang Kalmas and Liukang Tangaya. Sea level rise goes hand in hand with changes in the dynamics of sea water masses that will cause various disaster threats (coastal flooding, coastal erosion, seawater intrusion and the impact of storm surges and high waves) and damage to marine ecosystems that directly affect the livelihoods of fishing communities.

<sup>12</sup> Climate Change Projection | BMKG. <https://www.bmkg.go.id/iklim/?p=proyeksi-perubahan-iklim> There is no data available for the mainland area of NTB Province as a comparison for the Liukang Tangaya area

<sup>13</sup> [www.cmar.csiro.au](http://www.cmar.csiro.au)

## ENVIRONMENTAL CONTEXT

Coral reefs ecosystem. Based on the 2013 RZWP3K document of Pangkep Regency, the coral reefs in Liukang Kalmas have a total area of 704.43 ha and of 28,709 ha in Liukang Tangaya. Both are in the poor condition.<sup>14</sup> Damage to coral reefs in this area is caused by the practice of destructive fishing (DF) in the form of bombing and use of anesthetic materials. In a study conducted by DFW Indonesia in 2003, there were at least 427 bombings and 191 drugging fishing activities in 11 small islands in Liukang Tupabiring and Liukang Tupabiring Utara. In 2016, according to the same source, 13 bombers and anasthetic were found in the Kapoposang Marine Nature Park area. With coral reefs in Kalmas and Tangaya in worse condition than the other two sub-districts, it is suspected that DF practices in these two sub-districts were equally intense as those in the other two sub-districts.

**Mangrove ecosystem.** In 2013, the total area of mangrove vegetation in Liukang Kalmas and Liukang Tangaya was 4,465.63 ha.<sup>15</sup> In 2016, there had been a decrease of 1,684.57 ha in Liukang Tangaya and 802.25 ha in Liukang Kalmas. This decrease occurred due to natural causes such as coastal abrasion and exploitation for various purposes: building materials, energy sources (firewood), or being sold off the island. The destruction of the mangrove ecosystem itself means the release of carbon stocks into the air, the loss of carbon sinks, natural wave barriers, and the loss of one of the nutrient suppliers in the sea.

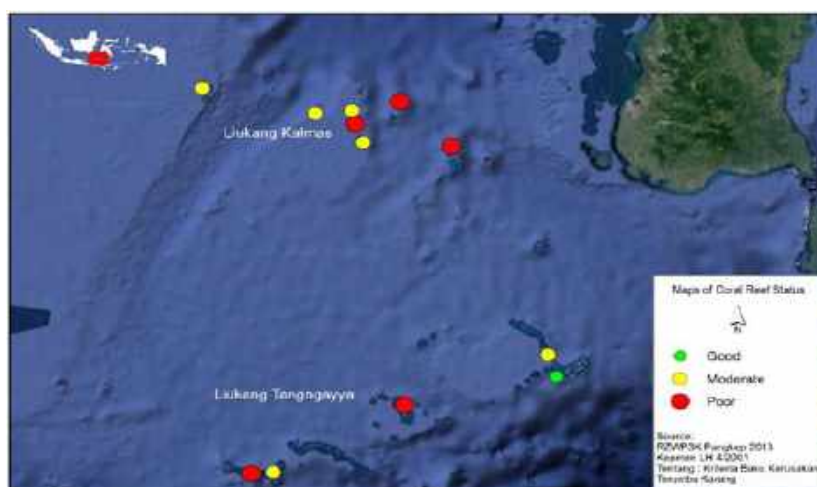


Figure 6. Coral Reef Condition in Liukang Kalmas and Liukang Tangaya

**Seagrass ecosystem.** Seagrass data of Pangkep Regency can be found in various documents but there is no data available regarding the seagrass distribution in Liukang Kalmas and Liukang Tangaya. Seagrass beds themselves are ecosystems that provide provisioning services for fish and their biota, which play an important role in food security and the welfare of small-scale fishers. Seagrass ecosystems are very important in climate change issues with their ability to store up to two times that of tropical forests.<sup>16</sup>

**Environmental issues.** As presented in the data above, Liukang Kalmas and Liukang Tangaya sub-districts are facing climate change threats with the increase in temperature and mean sea level. Both sub-districts also faced issues concerning waste management, coral and

<sup>14</sup> Final Document RZWP3K Pangkep 2013 & Ministry of Environment Decree No. 4 of 2001 concerning Standard Criteria for Coral Reef Damage

<sup>15</sup> RZWP3K Pangkep 2015

<sup>16</sup> <https://www.thebluecarboninitiative.org/about-blue-carbon#>



mangrove ecosystem degradation, coastal abrasion, and tidal flooding. There is no waste management system in both sub-districts and the coral and mangrove destruction is continuously occurring. Based on Data Integrated Poor Handling Program (PPFM) in 2015, 79% of households in Liukang Tangaya and 56% in Liukang Kalmas use charcoal/wood as their cooking fuel,<sup>17</sup> which is suspected to be one of the causes of the continued decline in mangrove land area in both sub-districts.

### **CLIMATE ISSUES:**

There is no data and information available about seasonal pattern changes in Kalmas and Tangaya. Nevertheless, as described earlier, Liukang Kalmas and Liukang Tanggaya sub-districts are facing climate change threats due to rising temperatures and mean sea level. Based on the BPBD Pangkep Regency data, in the last 3 years there have been 19 typhoon and high wave disasters in Liukang Kalmas and Liukang Tuppabiring sub-districts. These disasters caused damage to houses, public facilities, and shipwrecks. During 2019-2021, Tangaya and Kalmas community boats experienced 4 shipping accidents with 5 fatalities.

## **LIVING IN SMALL AND REMOTE ISLAND: SOCIAL ECONOMIC ADAPTATION CONTEXT**

### **LIVELIHOOD**

Based on Lemsas observations from 2000 to 2009 and interviews conducted in 2020, the main occupation of residents of Liukang Kalmas and Liukang Tangaya sub-districts is fishing, which is estimated to comprise more than 90% of the residents. Apart from fishing, a relatively small number of people are working as government employees. The main occupation is generally supplemented by cultivating tubers, corn and vegetables in the available lands on the island for daily consumption. The copra production is also one of the sources of income for the community. In some islands, people also cultivate seaweed. In recent years, people on several islands in Liukang Kalmas have made additional income by selling mangrove wood to buyers from outside the island.

### **INCOME AND POVERTY**

There is no data and information available about the average income of the community in the two districts. However, it is suspected that the inflation rate in both sub-districts is high due to the scarcity and high prices of essential goods with the difficulty of supplying goods to both sub-districts. According to the PPFM Integrated Data Programme 2015, 40% of Liukang Kalmas and 40% of Liukang Tangaya residents are in the Decile 1 category or "Households/Individuals with welfare conditions up to 10% the lowest in Indonesia".<sup>18</sup>

### **GENDER, AGE, DISABILITY AND VULNERABLE GROUPS**

As described in the Income & Poverty section, 40% of Liukang Kalmas and Liukang Tangaya residents are in Decile 1 or "up to the lowest 10% of the welfare state in Indonesia". They have 15% and 14% female-headed households respectively. The following is the composition of vulnerable communities in Liukang Kalmas and Liukang Tangaya.

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<sup>17</sup> PPFM Integrated Data for Pangkajene and Islands Regency/City 2015

<sup>18</sup> Ibid

Table 1. Composition of vulnerable communities in Liukang Kalmas and Liukang Tangaya sub-districts

Sub-District	Population	Household	Senior Citizen	children	Woman Headed Household	Decile Welfare 1	Disabled	Severe Pain
Tangaya	10.890 (5.357)	2.617	739 (7%)	2.903 (30%)	386 (15%)	4.382 (40%)	94	659
Kalmas	8.735 (4.324)	2.140	562 (7%)	2.245 (26%)	297 (14%)	3.521 (40%)	87	491

Source: Processed from PPFM Integrated Data for Pangkajene and Islands Regency/City 2015

## **LIVELIHOOD ADAPTATION CLIMATE CHANGE**

There have been no specific or planned climate change adaptation action taken by the communities in the two sub-districts. In the agricultural sector, with copra production activities, the community has a supply of resilience through the coconut plant which is not too influenced by the season. In the fishing sector, as the main source of livelihood, the community adapts by adjusting the location of fishing grounds to the season. During the high tide season, the fishing areas are closer to the coast. In which during this season, the community's livelihood becomes very subsistent because the production, both from agriculture and fisheries, is difficult to reach the mainland market.

### **Project / Programme Objectives:**

Overall project objective: Building Climate Changes Resilience for Small and Remote Islands Pangkajene Islands District. The main objectives of the program will be achieved by focusing on three main program components.

1. Strengthening the resilience capacity of remote small island areas of Pangkajene Islands Regency to climate change through environmental, social community and economic approaches.
2. Application of appropriate technology for climate change monitoring and early warning systems in remote small island areas.
3. Reduction of ecosystem stress from activities that utilize natural resources that are not environmentally friendly in remote small islands.
4. Strengthening policies, cooperation and learning in support of increasing resilience to climate change and disaster risk reduction.

### **Project / Programme Components and Financing:**

Project/Programme Components	Expected Outcomes	Expected Concrete Outputs	Amount (US\$)
1. Strengthening resilience capacity of remote small island areas of Pangkajene	1.1. Improvement of social adaptation capacity of remote small island	1.1.1. Community based Climate changes and disaster risk vulnerability assessment result/document for targeted 16 villages in	348.323

<p>Islands Regency to climate change through environmental, social community and economic approaches.</p>	<p>communities to the climate change</p>	<p>2 sub-districts (Liukang Tangaya and Liukang Kalmas) available.</p> <p>1.1.2. Establishment of 16 community groups on emergency and climate response (tim tanggap iklim dan bencana) at village level in two targeted sub-districts, (each group will have at least 10 members).</p> <p>1.1.3. Capacity building for 16 targeted emergency response teams has been conducted via thematic training.</p> <p>1.1.4. Community based climate adaptation measures with support of stimulant grant/fund schemes has been conducted in 16 villages.</p>	
	<p>1.2. Increased the environmental resilience of the small and remote island to climate changes.</p>	<p>1.2.1. Assessment results/documents on coastal and marine ecosystem (coral reefs, seagrass, and mangrove) vulnerability to climate changes for targeted islands sub-districts available.</p> <p>1.2.2. Mangrove ecosystem rehabilitation measures in 4 locations based on the island formations/groups implemented.</p> <p>1.2.3. Coral reefs ecosystem rehabilitation measures in 6 locations based on the island formations/groups implemented.</p> <p>1.2.4. Strengthened government capacity on management of marine conservation area.</p>	
	<p>1.3. Enhanced small and remote island</p>	<p>1.3.1. Climate school on seaweed farming with CBIB (<i>Cara budidaya</i></p>	

	community economic resilience to the climate changes.	<p><i>ikan yang baik - good fish farming) for one farming cycle.</i></p> <p>1.3.2. Application of innovative fishing gear using artificial hooks for targeted community fishing groups.</p> <p>1.3.3. Knowledge enhancement via Training on information system and fisheries product management and marketing for 16 targeted community group /climate and emergency response group.</p>	
2. Appropriate technology on monitoring system and early warning system for small and remote island regions	2.1. Increased local community adaptive capacity through applied technology on weather monitoring and early warning systems.	<p>2.1.1. 5 simple weather measurement stations on small and remote islands were installed.</p> <p>2.1.2. 6 Early warning systems for climate disaster and potential fishing ground information were installed.</p>	96.500
3. Ecosystem pressure/burden from non-environmentally friendly natural resources utilization on the small and remote island.	3.1. Destructive fishing activities reduced,	<p>3.1.1. Database related to destructive fishing activities within the region available.</p> <p>3.1.2. Increased public awareness on destructive and unsustainable fishing activities.</p> <p>3.1.3. Enhanced monitoring and law enforcement against destructive fishing.</p>	243.753
	3.2. Ecosystem pressure/burden from domestic waste of the small and remote island community activities reduced.	<p>3.2.1. Assessment results on the status of the domestic waste and its management from the small and remote island available.</p> <p>3.2.2. Increased waste management and public awareness related to clean and healthy lifestyle by improving the existing system and providing support facilities for on the small and remote</p>	

		island with community-based approaches.	
4. Cross-sectoral policies, cooperation and learning to enhance the small and remote island resilience to the climate changes	4.1. Availability of cross-sectoral cooperation agreement or policies to support the climate changes resilience for the community of the small and remote island.	4.1.1. The establishment of the Climate change adaptation and risk reduction working group (POKJA API-DRR) has been facilitated. 4.1.2. Local government cooperation within the region to support climate changes adaptation measures for the small and remote island community established. 4.1.3. The small island community access to the social security of the government social safety net program has been facilitated	117.285
	4.2. Knowledge and Lesson learn dissemination on the small and remote island resiliency to the climate changes	4.2.1. Lessons learned and knowledge management of the small island community to the climate changes were disseminated to both the public and government. 4.2.2. Availability of the project learning publication products in form of books, newsletters, and websites.	
5. Project/Programme Execution cost			117.285
6. Total Project/Programme Cost			805.861
7. Project/Programme Cycle Management Fee charged by the Execution Entity (if applicable)			80.880
<b>Amount of Financing Requested</b>			<b>979.548</b>

### Projected Calendar:

*Indicate the dates of the following milestones for the proposed project/programme*

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2023
Mid-term Review (if planned)	November 2023
Project/Programme Closing	December 2024
Terminal Evaluation	January 2025

## **PART II: PROJECT / PROGRAMME JUSTIFICATION**

- A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.*

This project was aimed to enhance the small and remote islands community resilience to climate change through strengthening their adaptive capacity and reducing the ecosystem threat from destructive economic activities. Where in the implementation, will be focused on 4 program components, 8 outcomes and 23 major outputs as described below.

### **Component 1: Strengthening the resilience capacity of remote small island areas of Pangkajene Islands Regency to climate change through environmental, social community and economic approaches.**

First component of the program targets 3 outcomes and 11 key outputs related to improving the social, environmental, and economic adaptive capacity of communities. The first outcome with four main outputs focuses on the social adaptive capacity of communities. Communities on small remote islands are particularly vulnerable to the impacts of climate change due to inequalities in development, availability of infrastructure, clean water, energy, education and reliable human resources, and accessibility to resources. Adaptation capacity will be improved through the provision of climate vulnerability and disaster risk assessment information, the establishment of climate and disaster risk response groups in 16 remote small island villages, technical and management training for the formed groups, as well as facilitation preparation of village adaptation action plans and the implementation of village-based climate change adaptation and disaster risk reduction actions with the support of small grants as stimulants. Other village-based adaptation actions will be ensured to be included in development planning that will receive support from village government funds to ensure sustainability.

The second outcome with four main outputs to improve adaptive capacity for the environment will be achieved by providing data and information on vulnerability assessment of coastal ecosystems including coral reef ecosystems, mangrove ecosystems and seagrass beds. Other activities to support the second outcome are capacity building and management facilitation of marine protected areas with the involvement of local governments and communities, and mangrove and coral reef ecosystems rehabilitation that have been degraded or damaged by climate and exploitation of human activities. There are at least 4 mangrove planting locations and 6 coral reef rehabilitation locations with a total target area of 10 Ha.

The third outcome with three main outputs related to economic adaptive capacity will be enhanced through diversification and innovation of existing livelihood activities focusing on fishing and seaweed farming. Seaweed farming diversification will be through field school classes in one production cycle, including management of harvesting. In addition to providing technical skills, the field school will also educate the community on the effects of climate on their economic resources. In the capture fisheries sector, fishing innovation will be introduced through modification of fishing gear and utilization of weather information

systems that will improve production and reduce operational costs due to insufficient information of weather conditions, climate and potential area for fishing.

### **Component 2: Appropriate technology on monitoring system and early warning system for small and remote island regions**

In this program component, the expected outcome is to increase the adaptive capacity of communities in small remote islands to climate change and disaster risk through the application of weather information technology and early warning systems. This will be achieved through the construction of 5 weather observation stations, particularly for wind, tides, waves and temperature. The weather observation stations will be managed by established groups with the support of village/sub-district governments and will also be integrated with the government's weather system at BMKG. Data and information from weather observation stations will be applied in a simple early warning system at 6 points of the archipelago at the centre of community activities in order to make access easier for the community and village government. Dissemination of early warning system information will be developed using existing communication networks both telephone and radio. The application of information and early warning system technology can improve the adaptive capacity of remote small island communities to the adverse climate change impacts, especially anticipating the lack of weather information and reducing the risk of conducting activities at sea in bad weather conditions.

### **Component 3: Ecosystem pressure/burden from non-environmentally friendly natural resources utilization on the small and remote island.**

Component 3 was designed to help in decreasing the environment sensitivity via reducing destructive fishing activities and reducing domestic waste leakage from islands to the marine ecosystem. There are two major outcomes in this component which are Outcome 3.1 that aimed to reduce potential community fishing activities that are destructive to its surrounding environment. This outcome consists of three outputs that focus on addressing lack of existing data and evidence especially on destructive fishing activities by conducting assessment and developing databases. Besides that, the outputs also focus on increasing community awareness on the destructive fishing activities throughout a series of educational campaigns, and regulation socialization. The third output focuses on the enhancement of community monitoring, surveillance and law enforcement to destructive activities that come from fishing sectors. This also in line with the South Sulawesi Provincial Marine and Fisheries Agency (DKP) goals on combating destructive fishing in the South Sulawesi marine area.

The second part is the outcome 3.2 which was designed as an effort on reducing the environmental burden from community domestic waste. There are two outputs, the first one, again will address the lack of existing data on the domestic waste management with rapid assessment to identify, investigate and document any effort or activities in managing domestic waste by the local community including existing infrastructures and regulation. The second output was aimed to enhance the existing domestic waste management and also promote healthy and clean lifestyle to the island communities through series of activities from developing temporary communal plastic waste collection and processing facilities, promoting village regulating, educational campaign, as well as facilitation to develop communal (off site) sewerage system (MCK communal).

#### **Component 4: Cross-sectoral policies, cooperation and learning to enhance the small and remote island resilience to the climate changes**

The fourth component consists of two outcomes and five main outputs related to strengthening policies and cross-sectoral cooperation in supporting the resilience of remote small island areas to climate change and learning from project implementation to reach more stakeholders. The first outcome with three main outputs to strengthen policies and cross-sectoral cooperation will be achieved through the establishment of the API-PRB working group and the regional action plan preparation for climate change adaptation and disaster risk reduction for targeted remote small island areas. The regional action plan will be discussed with local governments to become part of local government policy in accordance with the national government's mandate for the preparation of regional action plans for climate change adaptation in specific areas (Permen LHK Number P.33/Menlhk/Setjen/kum.1/3/2016: Guidelines for Climate Change Adaptation Actions). Cross-sectoral cooperation strengthening is focused on building agreements across local governments to provide access to remote small island coastal communities to basic needs, especially logistics and fuel in certain conditions where accessibility is limited. Another activity is to increase community access to local government social networking programs and insurance for fishermen.

The second outcome with two main outputs relates to dissemination efforts and lesson-learned from project implementation to reach more stakeholders. The second outcome will be achieved through workshop activities dissemination, sharing experiences and lesson learned as well as utilizing tools and media to inform and to share products from project implementation both through national and local media releases, implement agencies and local government websites as well as book and newsletter publications.

- B.** *Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.*

People who live on small and remote islands can be considered as one of the most vulnerable communities in Indonesia because they are living in a considerably extreme environment with very limited resources including the most basic needs such as clean water, foods, healthcare, and electricity. Though, these communities had survived in the extreme condition. High poverty rate and lack of public infrastructure are worsened by the impact of climate changes. Such a longer stormy season, unpredictable weather had taken a huge toll not only on their assets and livelihood, but also on their lives.

This project is mainly designed to enhance small island communities and its environment resiliency by strengthening their economic and social welfare such their social institutional, education, and technical skills, as well as additional and diversity of livelihood. Some of the activities will give direct benefit to the community such as an integrated early warning with weather and fishing ground display system will increase fishing efficiency and support them in adjusting the risk because they have better knowledge and information. Besides that,



this project also addresses their surrounding ecosystem through ecosystem rehabilitation, public awareness and strengthening waste management, as well as conservation, which have direct impact on the ecosystem and indirect impact on community life and livelihood. The project also will have a domino effect, where beside it will give benefit to the local and provincial government for better planning, management, and monitoring because the amount of data provided through series of study and assessment for both the community and environment, but also support them with better tools in prioritizing their development for the small and remote island communities.

The project design will treat all gender, ethnicity, and religion equally, and embeds an effort to increase women participation and contribution not only by its presence in all of proposed activities, but also addressing their ability to gain access, make decisions, or idea contribution in all of the project activities. Beside that the project will provide disaggregated data for gender from the activities and programs implementation.

Moreover, most of the project outcome and outputs will be based on community and environmental approaches, meaning project implementation will have a close coordination and communication with not only the local community but also with the local government to minimize any potential negative impacts on both communities and the environment by considering any regulation or law.

*C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.*

Funding allocation in this program will be focusing on activities to address remote small islands issues in facing climate change. Increasing community capacity and environmental resilience, economic improvement of remote small islands, application of appropriate technology, governance and improvement of coastal ecosystems, encouraging cross-sectoral and regional policies and cooperation are the program funding priorities to strengthen the resilience of remote small islands and to reduce their vulnerability to climate change.

Ecosystem-based approach and community-based approach are program approaches that will be implemented, the funding will benefit the sustainability of ecosystems and small remote island communities that are affected by climate change. In the program component of the resilience capacity of the remote small island area of Pangkajene Islands Regency to climate change through environmental, social, community and economic approaches through funding vulnerability studies, climate and disaster risk response groups, RAD API-DRR at village level, education for making adaptation action proposals supported by grant projects , management of conservation areas, field schools on cultivation methods, innovation of fishing gear and the application of capture fisheries information technology will provide significant benefits for vulnerable communities on small remote islands. This funding intervention will benefit:

- The existence of a detailed database through studies will assist in development planning for all parties
- Institutional and community capacity is a guarantee to minimize the impact of climate change and disaster risk

- Coastal ecosystem resources that are maintained and sustainable through good governance have implications for the sustainability of fish resources which are the foundation of life for small remote island fishing communities.
- The community's economic income will be better with fish cultivation literacy, innovation in fishing gear and access to fishery information for fishermen.
- By utilizing fishery information (potential actual fishing area) fishermen will be more effective and efficient in catching fish that go directly to the target location without having to travel to find potential fish areas. Fishermen will also be formed through more efficient fuel consumption and support the reduction of emissions from fishing activities

Furthermore, the appropriate technology component of the climate change monitoring and early warning system in remote small island areas with the allocation of funding for EWS development, socialization and campaigns for destructive fishing, marine debris management and cross-sectoral and regional collaboration will add benefits to the community.

- Minimizing loss of life and material loss for small remote island communities by utilizing the local EWS information system.
- Reduced environmentally unfriendly activities which will indirectly increase fishermen's catch
- Marine debris that is handled will reduce the threat to ecosystem and environmental sustainability of remote small islands. In addition, good and correct waste management supports the life of the community and a healthy generation which leads to the sustainability of the productivity and welfare of fishermen
- Multi-stakeholder involvement with collaboration is very helpful for achieving common goals in building resilience and adaptation of remote small island communities in facing climate change and disaster risk.

Funding management is also based on the assumption of location conditions (remoteness) which requires special efforts. With the consortium's experience with the same situational program locations, the funding allocation for each stage has been calculated appropriately. Proposed programs implementation is in line with development policies at the national, regional, provincial and district levels and had taken into account the benefit principle and effectivity and efficiency principle as well as knowledge on the actual cost that applied in the region becomes the basis for preparing a budget so that it is more transparent, simple, and objective, so it can be measured its cost-effectiveness. Another strategy is program finance transparency and applying clear and robust operational procedures (SOP) for program financing while taking into account privacy and confidentiality sensitive information to minimize conflict potential within the project team.

*D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.*

In the national context, this project was proposing development of the sub-national development plan for climate change adaptation (RAD) especially for small and remote islands of Pangkep Regency as a derivative and implementation of the national adaptation

plan (NAP). This is also in line with the MoEF (Ministry of Environment and Forestry) ministerial regulation No. P.33/Menlhk/Setjen/Kum.1/3/2016 on guidelines developing the climate change adaptation plan.

Proposed outcomes and outputs address in the project also inline will have a significant contribution with the national strategy and policy for small island management developed by the Ministry Marine Affairs and Fisheries (MMAF) especially related to combating the destructive and illegal fishing, waste management, anticipation for island sinking, and reduced environment condition. NDC (National Determined Contribution) implementation strategy as the implementation of the Paris Agreement and the law No. 16 of 2016 on Paris Agreement to the United nation framework convention on climate change, clearly stated the need of sectoral and regional adaptation especially on the small islands and coastal area.

In the provincial context, this program supports and is in line with the South Sulawesi Province medium term development planning (RPJMD) especially on the 5th mission which is increasing productivity and competitiveness of sustainable natural resources products, which one of its goals to maintain the quality of the environment and the ability to adapt and mitigate the climate changes impact. The strategy is to integrate sustainable development goals on the environmental pillar in aligning efforts to utilize environmental services with the environment capacity and it is carrying capacity, and to increase adaptation and mitigation capabilities to climate change and implement low-carbon development. The proposed program will also support the provincial government effort in strengthening its capacity in preparing and establishing the marine conservation (KKLD) area in Liukang Tangayya, where its already reserved with governor regulation, and its current status is under review by the Ministry Marine Affairs and Fisheries (MMAF).

The project design is also in accordance with the South Sulawesi Provincial Regulation No 2/2019 concerning the Zoning Plan for Coastal Areas and Small Islands (RZWP3K) of South Sulawesi Province which emphasizes the objectives of small island coastal management, one of which is through community empowerment by increasing participation in resource management and disaster mitigation and climate change adaptation.

*E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.*

In general, there are two main approaches that will be used in the project implementation, which are ecosystem-based approach and a community-based approach. These two approaches have become a gold standard used by various institutions that handle climate change adaptation efforts at the community level such as the UNFCCC, and UNDP in various project implementations.

In addition, the implementation of this project will follow the standards and guidelines that apply globally, nationally, and regionally to standardize and ensure the sustainability of the proposed measures, as briefly described in the paragraph below:

- Study and assessment on climate vulnerability and disaster risk

The implementation of this study and assessment mainly will be based on two

regulations, first for the climate vulnerability is based on the MoEF regulation No P.7 of 2018 on guidelines for accessing the risk and impact of climate change. Secondly, for the disaster risk it will be referenced to National Disaster Management Agency (NDMA) regulation No. 12 of 2012 on general guidelines for assessing disaster risk.

- Study and assessment on ecosystem vulnerability to climate changes

This study is not only based on risk assessment guidelines as described in the Minister of Environment and Forestry Regulation No.P.7/2018, but will also use several standard assessment methods such as MoEF decree No. 4 of 2001 on national standard criteria for coral reefs damaged assessment, MoEF decree No. 201 of 2004 on national standard criteria for mangrove damaged assessment, MoEF decree No. 200 of 2004 on national standard criteria and guidelines for seagrass status determination.

- Development of the climate changes adaptation action plan (RAD-API) for small islands at district level.

The development of the adaptation action plan for small islands will be based on the MoEF regulation No. P.33/Menlhk/Setjen/Kum.1/3/2016 on the guidelines for climate changes adaptation actions. Besides that, it will also be referenced to the National Adaptation Plan on Climate Changes (NAP -CC), and assessment results on climate vulnerability and disaster risk, including any recent development plan.

- Improving the management of marine conservation areas and marine and small island waste management

Measures to enhance and improve the management of the marine conservation area will be based on MMAF Decree No.31/PERMEN-KP/2020 concerning Management of Conservation Areas. While project measures to enhance the community methods on handling domestic waste for both island and sea will refer to Presidential Decree 83 of 2018 concerning Marine debris handling. and KP Candy. 26 of 2021 concerning prevention of pollution, prevention of damage, rehabilitation, and improvement of fish resources and their environment.

*F. Describe if there is duplication of project / programme with other funding sources, if any.*

No, there is no duplication of the project so far.

*G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.*

Lessons learned from project implementation will be documented in the form of writing, pictures and videos and discussed through knowledge sharing workshop sessions involving various relevant parties. Knowledge management improvement will be carried out by sharing knowledge and learning success stories involving other climate change project implementers, both supported by the Adaptation Fund or other similar institutions at the local and national levels so that the information exchange process occurs. Project implementation will be disseminated in the early, mid and final stages of the project through workshops at both local and national levels to describe the project plans, processes and outcomes while receiving productive feedback.

To reach a wider audience, project information publication materials are made in the form of fact sheets, lesson learned books, press releases on project activities in local and

national media, build a special website thematic on climate change that informs project progress and achievements, and distributes project newsletter series to the public. relevant parties. The results of relevant studies involving research institutions will be published in the form of research papers, scientific journals or policy briefs.

- H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.*

Sites determination and beneficiaries' selection process was based on secondary data analysis that collected from various credible sources such as the central statistics bureau (BPS), MoEF for SIDIK data, Province, and District development plans. While the consultation process was done with various level of government officials including Directorate of coastal and small island utilization of Ministry Marine Affairs and Fisheries (MMAF), Provincial and district environmental agency, and Marine and Fisheries agency. Direct consultations were also carried out with networks and key figures in the proposed project locations to verify information resulting from the previous data analysis and to identify potential beneficiaries by ensuring the involvement of women's and other vulnerable groups as well as proposed measures related to climate change adaptation. The stakeholders and key point discussion are listed in table below:

No	Stakeholder	Consultation Key Point
1	Directorate of Coastal and Small Island Utilization, Ministry Marine Affairs and Fisheries (MMAF)	Small and remote island location, major challenges and issues, national programs related to climate changes in general and the one that focused on the small island.
2	Marine Affairs and Fisheries Office South Sulawesi Province	Development challenges in small island of South Sulawesi, Provincial development plan and programs, Climate changes issues, and secondary data related to the locations
3	Environment Office South Sulawesi Province	Existing regional development plan and program related to the climate changes adaptation for small island, regulation, data on NDC achievement, synergy on local government needs.
4	Regent of Pangkajene Island	District development plan and program especially related to the small and remote islands, accessibility information and demography data, synergy of development and government needs.
5	Head of Village in Liukang Kalmas Sub-district	verifying data and information resulted from previous analysis, updating data and information on demography and accessibility
6	Community in Small Island Villages of Liukang Tangaya Sub-District	Data and information verification, updating, gathering issues on climate changes and its impact, demography, and accessibility.

*I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.*

The main challenge in carrying out planned and structured adaptation actions for small and remote islands such as in the Liukang Tangaya and Liukang Kalmas areas is access to financing, both at the district and national scale. However, climate change adaptation and mitigation efforts for small islands have been integrated into the national strategy and policy for the management of small islands and coasts. However, obstacles such as the availability of comprehensive and detailed data, as well as access to locations that are quite difficult, the representation of the population is less and exacerbated by the limited availability of basic infrastructure in these small islands, making program planning for this area less priority.

The project is planned to intervene not only in increasing community resilience socially, economically and institutionally but also in targeting the resilience of ecosystems such as coral reefs, mangroves, and seagrass beds and trying to reduce ecosystem burdens from unfriendly behaviour and domestic island waste, which is not handled properly. The proposed funding for this program will focus on these adaptation actions, which are divided into four main components below.

**Component 1: Resilience capacity of the remote small island area of Pangkajene Islands Regency against climate change through environmental, social, community and economic approaches.**

Without funding from the Adaptation Fund (AF), adaptation actions such as those included in this concept note will be very difficult to carry out. Some of the basic activities proposed target the main obstacles to development planning, such as the availability of data, study documents, and efforts to increase the capacity of community institutions, which until now cannot be carried out or financed by the Regional Government.

**Component 2: Appropriate technology for climate change monitoring and early warning systems in remote small island areas.**

From the Makassar Strait area to the Banda strait confluence, there are still no measurement stations, either weather and climate stations or a simple, early warning system. The local government and the BMKG itself have not been able to prioritize the budget for the installation of these basic installations. Funding from AF will be allocated to install several simple early warning system stations with displays that relay weather data and wave predictions by the BMKG, which are integrated with maps of KKP fishing ground locations to help efficiency and reduce risks for the people of the surrounding islands. In addition, the financing will also target the installation of simple and automatic weather stations for several basic parameters that can enrich and improve the accuracy of BMKG wave calculations/estimates

**Component 3: Ecosystem burden from non-environmentally friendly natural resource utilization activities on remote small islands.**

The authority to manage coastal areas and islands has shifted from the Regency to the Province, causing difficulties in environmental supervision and monitoring due to the

limitations of the province, both in terms of human resources and in terms of budgeting. This can be seen from the rampant fishing actions that are not environmentally friendly that occur in the Liukang Tangaya and Liukang Kalmas areas and the data on damage to coral reef ecosystems is increasing. With program funding from AF, which is also focused on increasing public awareness and strengthening community-based environmental monitoring as a form of reducing climate vulnerability for the environment by reducing environmental exposure from destructive activities and also contributing to a decrease in the sensitivity of the ecosystem.

#### **Component 4: Cross-sectoral policies, cooperation and learning to enhance the small and remote island resilience to the climate changes**

Adaptation measures to reduce climate risk and vulnerability in coastal areas also require cross-sectoral policies and cooperation, especially on how to meet basic needs such as energy, fuel, and education. Until now, local government action and funding have not accommodated the implementation of cross-sectoral cooperation and policies related to adaptation efforts to the targeted small and remote islands.

With funding support from the Adaptation Fund (AF), the facilitation of cross-sectoral collaboration will be more flexible because it will be able to bridge the limitations and sectoral priorities in allocating of resources from each development sector. AF funding will also contribute to efforts to disseminate learning products to ensure the community's improvement, environmental and economic resilience to the impacts of climate change and to reach and involve more stakeholders.

#### **J. *Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.***

Village-based adaptation actions will be integrated into village development planning through village development meetings every year. Village-based adaptation actions that have been identified based on the results of vulnerability and climate disaster risk studies will be arranged based on priorities in obtaining village fund allocations.

Climate response and disaster risk groups formed as driving actors in rural communities will become part of the national movement for community-based climate change control that is integrated with the local government's climate village program (Proklim). The group formed will also play a role in supporting community groups for monitoring coastal and marine resources as part of the local government program in the fisheries sector. The formed group acts as an agent to take action and provide education on the need to increase ecosystem resilience in the face of climate change through sustainable management of coastal marine resources.

Product of the vulnerability assessment and disaster risk reduction will be a reference in government development planning at the village, district and provincial levels through RAD API-PRB specific to remote small islands. Capacity building for local governments in terms of technical and managerial aspects of marine conservation areas will encourage optimization of conservation area management with the support of human resources and better budget allocation from the provincial and national governments. Marine conservation areas will strengthen the resilience of coastal ecosystems in the face of the impacts of

climate change.

Ecosystem rehabilitation/restoration activities supported by actions to reduce the ecosystem burden from destructive community activities will ensure the improvement of ecosystems in small island coastal areas to support environmental resilience against the impacts of climate change and increase the economic potential of future use of environmental resources.

Weather monitoring stations and early warning systems will be integrated into management by the government's BMKG so that they can fill gaps or data shortages in remote small island areas related to weather and climate.

**K. *Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.***

Three of the 15 principles following the ESP have the potential to have low to medium risk at the social level, namely Protection of natural habitat and Pollution Prevention, Conservation of Biological Diversity, and Resource Efficiency.

Communities that use conventional and unlimited mangrove and coral reef ecosystems can potentially lose their use rights or become limited in their access rights to resources. Then there is a decrease in quality of life when the program encourages joint commitments related to natural resource management so that it has the potential to create conflicts of interest and potentially cause damage to the environment. other areas that are far from the scope of supervision

The development of alternative livelihoods in this program is based on needs. Such as strengthening new skills, increasing income, strengthening supply chains, and social security. With the input of this program, it is hoped that there will be an increase in income, health, and community capacity.

Waste management mechanisms or introducing new behaviour not to throw garbage directly into the sea are also considered to have the potential to cause conflict (shock culture) in the community. It is because of the hereditary habit of island people managing waste with two mechanisms, namely burning or throwing it into the sea, because of the lack of land that can be used as a landfill on the island's mainland. So, household production waste will generally end up in the sea.

Improved governance of natural resource use will reduce deforestation, coral reef damage, and environmental pollution. Efforts to improve governance prioritize safeguarding key habitat areas and species.



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

### **PART III: IMPLEMENTATION ARRANGEMENTS**

The Resilient-Climate Change Adaptation consists of 3 organizations that focus on coastal and small island issues with DFW Indonesia serving as the consortium leader. Lembaga Maritim Nusantara and Yayasan Nypah Indonesia will provide support resources and experts as needed. All institutions that are part of the consortium have experience in projects / programs related to climate change issues, coastal and small island environments, community empowerment for approximately 20 years. DFW Indonesia in 2017-2018 became an implementing partner of the Climate Change Adaptation program funded by USAID through the APIK project. DFW Indonesia will take on the role of lead consortium with consideration of the capacity of institutions that have collaborated and managed various projects involving donor agencies with a value of up to \$ 500,000 a year.

Project implementation will use a Project Management Unit (PMU) structure whose composition is adjusted to the availability of human resources in each institution. Outside the PMU, a project implementation supervisory body will be formed consisting of representatives from each institution who are not directly involved in project implementation. The supervisory body will be a control and supervision mechanism to avoid conflicts of interest against the parties directly involved in project implementation.

In each project activity will ensure the involvement of women's groups and other vulnerable groups in an appropriate composition to prioritize gender issues and inclusiveness including in the recruitment process of staff involved in the project and direct beneficiaries. The consortium will also ensure the involvement of local governments to ensure the sustainability of the project since the project planning consultation process, implementation process, monitoring and evaluation and project closure. Educational institutions and other parties will be involved as specialists or experts who will support studies and analysis carried out in accordance with the needs of project implementation.

To ensure the project goes according to plan, a collaborative monitoring and evaluation mechanism will be established from the beginning involving the NIE, NDA, Local Government and the Consortium Board including the local level API-PRB Working Group.

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

### A. Record of endorsement on behalf of the government<sup>2</sup>

<b>1. H. Syahban Sammana, SH</b> Vice-Regent of Pangkajene Islands Regency	<i>Letter Date: 13 July 2022</i>
<b>2. Dr. M. Ilyas, ST, M.Sc.,</b> Head of Marine Affairs and Fisheries Office South Sulawesi Province	<i>Letter Date: 12 July 2022</i>
<b>3. Ir. Andi Hasbi, M.T.</b> Head of Environment Office South Sulawesi Province	<i>Letter Date: 14 July 2022</i>
<b>4. Prof. Dr. Nurjannah Nurdin, ST</b> Head of Research and Development Center for Marine, Coastal and Small Islands, Hasanuddin University	<i>Letter Date: 14 July 2022</i>
<b>5. Dr. Ir. M. Rijal Idrus, M.Sc</b> Head of Research and Development Center for Climate Change, Hasanuddin University	<i>Letter Date: 14 July 2022</i>
<b>6. Muhammad Yusuf, S.Hut</b> Director of Coastal and Small Island Utilization, Ministry Marine Affairs and Fisheries	<i>Endorsement Letter: On Progress</i>

### B. Implementing Entity certification

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

<sup>6</sup> Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.



**Mohamad Abdi**

National Coordinator DFW-Indonesia

Representatif Konsorsium Tangguh Adaptasi Perubahan Iklim

Date: *(July, 15, 2022)*

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Endorsement Letter from Marine Affairs and Fisheries South Sulawesi Province



PEMERINTAH PROPINSI SULAWESI SELATAN  
**DINAS KELAUTAN DAN PERIKANAN**  
Jl. Bajiminas No. 12 Telp. 873680 – 854726 Fax. (0411) 858779 Kotak Pos 1062  
MAKASSAR 90126

**SURAT REKOMENDASI**  
NOMOR: 523/1000/VII/2022

Saya yang bertanda tangan di bawah ini :

Nama : Dr. M. ILYAS, ST., M.Sc  
NIP : 19700606 199603 1 006  
Pangkat : Pembina Tk I / IV.b  
Jabatan : Kepala Dinas Kelautan dan Perikanan Provinsi Sulawesi Selatan  
Unit Kerja : Provinsi Sulawesi Selatan  
Instansi : Dinas Kelautan dan Perikanan Provinsi Sulawesi Selatan

Memberikan rekomendasi kepada 'Konsorsium Tangguh Adaptasi Perubahan Iklim (Lembaga Maritim Nusantara - DFW Indonesia - Nypah Indonesia)' yang merupakan konsorsium dari *Non Government Organization* (NGO) yang aktif dalam pemberdayaan masyarakat pesisir dan pulau-pulau kecil di Sulawesi dan Indonesia pada umumnya, dimana saat ini sedang mengusulkan di daerah Kabupaten Pangkajene & Kepulauan sebagai lokasi kegiatan pada usulan program adaptasi perubahan iklim yang diselenggarakan oleh KEMITRAAN dengan tema "Membangun Ketahanan Pulau Kecil dan Terpencil Kabupaten Pangkajene Kepulauan Terhadap Perubahan Iklim"

Demikian Surat Rekomendasi ini untuk dipergunakan sebagaimana mestinya.

Makassar, 12 Juli 2022

Kepala Dinas



**Dr. M. ILYAS, ST., M.Sc.**  
Pangkat : Pembina Tk I / IV.b  
NIP. 19700606 199603 1 006

Endorsement Letter from Environment Office South Sulawesi Province



PEMERINTAHAN PROVINSI SULAWESI SELATAN  
**DINAS PENGELOLAAN LINGKUNGAN HIDUP**  
Jl. Urip Sumohardjo No. 269 ☎ (0411) 450478-453208 Fax. (0411) 450478  
Makassar 90231

**SURAT REKOMENDASI**  
Nomor: 660/3109/SET/DPLH

Saya yang bertanda tangan di bawah ini:

Nama : Ir. Andi Hasbi, M.T  
NIP. : 19650427 199203 1 009  
Pangkat/Gol : Pembina Utama Madya / IV.d  
Jabatan : Kepala Dinas Pengelolaan Lingkungan Hidup  
Unit Kerja : Provinsi Sulawesi Selatan  
Instansi : Dinas Pengelolaan Lingkungan Hidup

Memberikan rekomendasi kepada "Konsorsium Tangguh Adaptasi Perubahan Iklim Pesisir" yang merupakan konsorsium dari *Non Government Organization* (NGO) yang aktif dalam pemberdayaan masyarakat pesisir dan pulau-pulau kecil di Sulawesi dan Indonesia pada umumnya, dimana saat ini sedang mengusulkan di daerah Kabupaten Pangkajene & Kepulauan sebagai lokasi kegiatan pada usulan program adaptasi perubahan iklim yang diselenggarakan oleh KEMITRAAN – Adaptation Fund dengan tema "Membangun Ketahanan Pulau Kecil dan Terpencil Kabupaten Pangkajene Kepulauan Terhadap Perubahan Iklim"

Demikian surat Rekomendasi ini untuk dipergunakan sebagaimana mestinya

Makassar, 14 Juli 2021

Kepala Dinas



Ir. Andi Hasbi, M.T  
Pangkat: Pembina Utama Madya  
NIP: 19650427 199203 1 009

## Endorsement Letter from Vice-Regent of Pangkajene Islands Regency



### BUPATI PANGKAJENE DAN KEPULAUAN

Pangkep, 13 Juli 2022

Number : 900 / 123 / KEIBANGPOL  
Appendix :  
Subject : Endorsement for Building Climate Change Resilience for Small and Remote Islands Project In Pangkajene dan Kepulauan District of South Sulawesi Province

To : The Adaptation Fund Board  
c/o Adaptation Fund Board Secretariat  
Email : Secretariat@Adaptation-Fund.org  
Fax: 202 522 3240/5

In my capacity as designated authority for local government in Pangkajene dan Kepulauan Regency, I confirm that the project proposal **Building Climate Change Resilience for Small and Remote Islands Project In Pangkajene dan Kepulauan District of South Sulawesi Province** is in accordance with the local government's priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Indonesia particularly in Pangkajene dan Kepulauan -Regency of South Sulawesi Province.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by Partnership for Governance Reform (kemitraan) of Indonesia and executed by Small and Remote Islands Climate Change Adaptation Consortium (DFW Indonesia, Lemsu, Yayasan Nypah). Thank you for your attention.

WAKIL BUPATI PANGKAJENE DAN KEPULAUAN



H. SYABBAN SAMMANA, SH

Endorsement Letter from Head of Research and Development Center for Marine, Coastal and Small Islands, Hasanuddin University



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET DAN TEKNOLOGI  
UNIVERSITAS HASANUDDIN  
LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT  
PUSLITBANG LAUT, PESISIR DAN PULAU-PULAU KECIL  
Jl. Perintis Kemerdekaan KM.10, Makassar 90245  
Telp.(0411) 587032, 582500, 588888 Fax.(0411) 587032, 584024  
Laman : <http://lp2m.unhas.ac.id> email : [lp2m@unhas.ac.id](mailto:lp2m@unhas.ac.id)



SURAT REKOMENDASI

NOMOR : 26/ UN4.22.11/RT.01.00/2022

Saya yang bertanda tangan di bawah ini :

Nama : Prof. Dr. Nurjannah Nurdin, ST  
Jabatan : Kepala Puslitbang Laut Pesisir dan Pulau-Pulau Kecil, Unhas  
Instansi : Universitas Hasanuddin

Memberikan rekomendasi kepada "Konsorsium Tangguh Adaptasi Perubahan Iklim Pesisir" yang merupakan konsorsium dari *Non Government Organization* (NGO) yang aktif dalam pemberdayaan masyarakat pesisir dan pulau-pulau kecil di Indonesia pada umumnya, dimana saat ini sedang mengusulkan di daerah Kabupaten Pangkajene & Kepulauan, Provinsi Sulawesi Selatan sebagai lokasi kegiatan pada usulan program adaptasi perubahan iklim yang diselenggarakan oleh KEMITRAAN – *Adaptation Fund* dengan tema "Membangun Ketahanan Pulau Kecil dan Terpencil Kabupaten Pangkajene Kepulauan Terhadap Perubahan Iklim"

Demikian Surat Rekomendasi ini untuk dipergunakan sebagaimana mestinya.

Makassar, 14 Juli, 2022

Kepala,

Prof. Dr. Nurjannah Nurdin, ST  
NIP 19680918 199703 2 001





Endorsement Letter from Head of Research and Development Center for Climate Change,  
Hasanuddin University



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI  
**UNIVERSITAS HASANUDDIN**  
LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT  
PUSLITBANG PERUBAHAN IKLIM  
Kampus Unhas, Tamalanrea, Makassar 90245



Laman: <http://p2m.unhas.ac.id> email: [climate.change@unhas.ac.id](mailto:climate.change@unhas.ac.id)

**SURAT REKOMENDASI**  
NOMOR: 006/Rek/E/VII/2022

Yang bertanda tangan di bawah ini:

Nama : Dr. Ir. M. Rijal Idrus, M.Sc  
Jabatan : Kepala Puslitbang Perubahan Iklim, Unhas  
Instansi : Universitas Hasanuddin

Memberikan rekomendasi kepada **"Konsorsium Tangguh Adaptasi Perubahan Iklim Pesisir"** yang merupakan konsorsium dari Non Government Organization (NGO) yang aktif dalam pemberdayaan masyarakat pesisir dan pulau-pulau kecil di Indonesia pada umumnya, dimana saat ini sedang mengusulkan di daerah Kabupaten Pangkajene & Kepulauan, Provinsi Sulawesi Selatan sebagai lokasi kegiatan pada usulan program adaptasi perubahan iklim yang diselenggarakan oleh KEMITRAAN – Adaptation Fund dengan tema *"Membangun Ketahanan Pulau Kecil dan Terpencil Kabupaten Pangkajene Kepulauan Terhadap Perubahan Iklim"*

Demikian Surat Rekomendasi ini diberikan untuk dipergunakan sebagaimana mestinya.

Makassar, 14 Juli, 2022

Kepala,

**Ir. Rijal M. Idrus, MSc, PhD.**

NIP: 19651219199021001



MINISTRY OF ENVIRONMENT AND FORESTRY  
DIRECTORATE GENERAL OF CLIMATE CHANGE

Manggala Wanabakti Building Block VII 12<sup>th</sup> Floor, Jalan Gatot Subroto – Senayan, Jakarta 10270

Phone +62 21 5730144 Fax. : +62 21 5720194

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

email : [tusetditppi@gmail.com](mailto:tusetditppi@gmail.com);

Our Ref. : *S. 44A/PPI/API/KUY.0/10/2003*  
Subject : Endorsement to the concept note Building  
Climate Changes Resiliency for Small and  
Remote Islands in Pangkajene Island  
(Pangkep) District

Jakarta, 24 Oktober 2023

Attention to:  
The Adaptation Fund Board Secretariat  
c/o Global Environment Facility  
Mail stop: N 7-700, 1818 H Street NW  
Washington DC 20433 USA  
email: [afbsec@adaptation-fund.org](mailto:afbsec@adaptation-fund.org)


Dear The Adaptation Fund Board,

I am writing to you in conjunction with the Concept Note "**Building Climate Changes Resiliency for Small and Remote Islands in Pangkajene Island (Pangkep) District**" in which I fully endorse.

With the consideration and in my capacity as The National Designated Authority of Adaptation Fund in Indonesia, I recommend the above concept note to be granted support from the Adaptation Fund Board.

Thank you for your attention and further cooperation.

Sincerely yours,



Laksmi Dhanwanthi  
Director General for Climate Change  
As National Designated Authority  
for Adaptation Fund Indonesia

Copy to:  
*Kemitraan* (Partnership Governance Reform in Indonesia) as NIE AF in Indonesia



## Project Formulation Grant (PFG)

Submission Date: **08 November 2023**

Adaptation Fund Project ID :  
 Country/ies : **Indonesia**  
 Title of Project/Programme : **Building Climate Changes Resiliency for Small and Remote Islands in Pangkajene Island (Pangkep) District**  
 Type of IE (NIE/MIE) : **NIE (National Implementing Entity)**  
 Implementing Entity : **Kemitraan – The Partnership for Governance Reform**  
 Executing Entity/ies : **Resilient-Climate Change Adaptation Consortium (Konsorsium Tangguh Adaptasi Perubahan Iklim/(Kontan API - DFW Indonesia, Lembaga Maritim Nusantara, Yayasan Nypah Indonesia)**

### A. Project Preparation Timeframe

Start date of PFG	<b>1 December 2023</b>
Completion date of PFG	<b>29 February 2024</b>

### B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

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

### C. Implementing Entity

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

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Laode M. Syarif, KEMITRAAN		November 7, 2023	Abimanyu S. Aji	+6221-22780580	abimanyu.aji@kemitraan.or.id