



ADAPTATION FUND

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: SMALL-SIZED PROJECT CONCEPT

Country/Region: Indonesia

Project Title: Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province

Thematic Focal Area: Coastal Management

Implementing Entity: Partnership for Governance Reform in Indonesia (Kemitraan)

Executing Entities: Kursorcium Garis Biru

AF Project ID: AF00000304

IE Project ID:

Requested Financing from Adaptation Fund (US Dollars): 970,503

Reviewer and contact person: Camila Florez

Co-reviewer(s):

IE Contact Person:

Technical Summary

The project "Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province" aims to strengthen food security and livelihoods of coastal communities. This will be done through the three components below:

Component 1: Strengthening food security and livelihoods for coastal communities in the face of climate change (USD 305,513);

Component 2: Capacity building of coastal community groups in climate change adaptation strategies (USD 325,800);

Component 3: Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation actions (USD 179,821).

Requested financing overview:

Project/Programme Execution Cost: USD 83,758

Total Project/Programme Cost: USD 894,892

Implementing Fee: USD 75,611

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| | <p>Financing Requested: USD 970,503</p> <p>The initial technical review raises several issues, such as the compliance with ESP, the lack of duplication with other projects, and the cost-effectiveness of the proposed outputs and activities, as is discussed in the number of Clarification Requests (CRs) and Corrective Action Requests (CARs) raised in the review.</p> |
| Date: | January 20, 2023 |

| Review Criteria | Questions | Comments | Response |
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| Country Eligibility | 1. Is the country party to the Kyoto Protocol, or the Paris Agreement? | Yes. | |
| | 2. Is the country a developing country particularly vulnerable to the adverse effects of climate change? | Yes. Indonesia will experience changing climate conditions that affect coastal livelihoods. | |
| Project Eligibility | 1. Has the designated government authority for the Adaptation Fund endorsed the project/programme? | Yes. As per the Endorsement letter dated 5 August 2022. | |
| | 2. Does the length of the proposal amount to no more than Fifty pages for the project/programme concept, including its annexes? | Yes. CAR1: Section III: Implementation Arrangements does not need to be submitted for a Concept Note. CAR2: Kindly spell out all acronyms used in the concept note the first time they appear. | Has been update on paragraph 14,15, 19, 35, 57, 70, 85 |
| | 3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity | Yes, but further information is needed. The project aims to strengthen the food security and livelihoods of | |

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| | <p>to the adverse effects of climate change and build in climate resilience?</p> | <p>coastal communities by addressing the adaptive capacity of fishermen and strengthening the collaboration of coastal communities with stakeholders.</p> <p>CR1: Output 1.2, which focuses on the installment of fish apartments, seems to be increasing the diversity of livelihoods rather than increasing fishermen's adaptive capacity– as their ability to plan, overcome, and adjust to changes (Outcome 1). It may be advisable to improve the wording of Outcome 1 so that the following outputs feed into this outcome.</p> <p>CR2: Regarding Outputs 2.1 and 2.2., how will these ensure that the targeted beneficiaries (vulnerable groups at the project site) are prepared to deal with climate change impacts? Both outputs focus on livelihoods diversification given their limited current capacities and marginalized conditions (which would be needed with or without climate change). However, it remains unclear how the project will foster that such</p> | <p>CR1: Refer to Output 1.2, Paragraph 36-39 In this output, fishermen's capacity will be strengthened in identifying new catchment areas through fish apartments as a responses to the impact of climate change at the project site. The area will increase the diversity of livelihood fishermen. We have changed the wording of output 1.2 to "Fisherman are able to identify and develop new fishing spots through fish apartments"</p> <p>CR2: Has been revised on Paragraf 39</p> |
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| | | <p>groups can withstand climate impacts. Please amend accordingly.</p> <p>CR3: Concerning Output 3.3, it is most welcome that youth will be involved in this project. However, the activities outlined need to be aligned with the overall project aim. Activity 3.3.2 is missing a causal explanation of its adaptation benefits. Kindly provide further details on how this activity will increase resilience (i.e., of who, to what, and in what way).</p> <p>CR4: Kindly revise the wording of Output 4.3, "Coastal tourism villages increase in management" to improve the clarity - what would be achieved with this output (i.e., measurable output)?</p> | <p>CR3: Has been revised on Paragraf 51 (3.3.2)</p> <p>CR4: Has been revised on Output 4.3 "Managed coastal environmental services through coastal tourism villages". This project encourages the improvement of village tourism management that is responsive to the impacts of climate change. Encouraging coastal ecotourism that utilizes sustainable management of environmental services. In the target village of ecotourism, there are Environmental Services in the form of Mangrove Areas and Coral Reefs. The Responsible Tourism ecotourism approach will encourage efforts to increase the capacity of existing Environmental</p> |
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| | | <p>CAR3: Please revise the projected calendar to reflect up-to-date planning.</p> <p>CAR4: Paragraphs 38 & 39 are repeated from "At the project location,...". Please revise.</p> | <p>Services, thereby strengthening coastal areas from the impacts of climate change, such as coastal floods and abrasion. Every tourist will be educated regarding the importance of coastal ecosystem resilience in the face of the impacts of climate change. The tourists will be guided to contribute to the resilience of coastal ecosystems, such as mangrove planting by tourists, reduction of coastal waste and others.</p> <p>CAR3: Projected calendar Has been Revised</p> <p>CAR4: Has been revised</p> |
| | <p>4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?</p> | <p>Yes, but further information is needed. The project aims to provide economic, social, and environmental benefits to coastal communities in 9 vulnerable villages, including fishermen, vulnerable groups, women's groups, and youth cadres. An initial gender analysis has been provided (Annex 3), which informs the project design.</p> <p>CR5: The project has one component focused on vulnerable groups and has indicated that 30% of beneficiaries would be encouraged to be women</p> | <p>CR5: Refer to Paragraph 65. Yes, this project, in outcome 2, focuses on the full involvement of</p> |

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| | | <p>and vulnerable groups. Could the proponent clarify whether the 30% participation of women and vulnerable groups would only be encouraged by the project management team or would be ensured throughout the project implementation? Further, would women be supported to participate in project activities in addition to those detailed under Output 2.2.?</p> <p>CR6: Kindly indicate the total number of direct beneficiaries of this project, if possible disaggregated by gender/youth. Please differentiate between direct and indirect beneficiaries in the Table in section B, after paragraph 65 (also please assign a number to the Table).</p> | <p>women and vulnerable groups. Whereas in other outcomes and activities, the involvement of women and the vulnerable is targeted at a minimum of 30%. For example, in village community capacity building training activities, it is targeted that at least 30% of women and vulnerable groups will participate. Another example, at village level meetings, will ensure the involvement of women and vulnerable groups 30%. Participation of women and vulnerable groups during project implementation.</p> <p>CR6: Has been revised on the table 6 Project Beneficiaries</p> |
| | <p>5. Is the project / programme cost effective?</p> | <p>No.</p> <p>The proposed project costs US\$ 894,893, and projected losses for the three project districts are US\$ 3,061,136 by 2045. The project focuses on 9 villages in these three districts. The project is investing in institutional and communities' capacities that will allow them to work</p> | |

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| | | <p>collaboratively in dealing with climate change impacts and supporting Indonesia's climate adaptation approach with the Proklim program. This investment is expected to ensure long-term collaboration between selected villages and national climate governance mechanisms.</p> <p>CR7: Kindly further explain in section C how the project is cost-effective compared to other potential measures (i.e., why the selected project approach is more effective than other measures such as insurance schemes temporally/spatially shifting fishing trips or introducing location-aware mobile devices for fishing collaboration).</p> | <p>CR7: Refer to paragraph 66.</p> <p>This project is much more cost-effective than other projects such as insurance for fishermen because the main objective of this project is to build capacity, empower fishing communities, and strengthen their food and livelihood systems so that fishing households can adapt to climate change. This means that this project has a long-term positive effect compared to projects such as fishermen's insurance. Fishermen's insurance projects require fishermen to spend money to pay premiums. Even though the amount of the premium in nominal terms may not be large, for poor fishing households allocating income to pay the premium is quite burdensome. In addition, compared to introducing location-aware mobile devices for fishing collaboration to fishermen, this project is much more efficient,</p> |
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| | | <p>CR8: Likewise, please explain the cost-effectiveness of Outcome 2 (budget ratio per beneficiary is US\$ 1,252.94). Would there be alternative ways of diversifying the livelihoods of the identified vulnerable groups? Why is this the best approach?</p> | <p>even for similar activities, this project also has similar outcomes to the introduction of mobile devices to identify fishing areas. The outcome is in the first project component, namely 1.1. There is a map of the catchment area that adapts to migration patterns and fish seasons and 1.2. Fisherman are able to identify and develop new fishing spots through fish apartments. In fact, it doesn't only help fishermen to find other fishing areas, these outcomes actually make fishermen several new fishing areas.</p> <p>CR8: Refer to paragraph 67.</p> <p>In this project there are specific outcomes aimed at increasing the capacity of fishermen to diversify their sources of income, namely Outcome 2: Increased the diversity of livelihoods and income sources in vulnerable groups at the project site. To diversify the livelihood sources of fishermen households, the project will involve women's groups who will process the catch into derivative products that can be sold and have a higher added value. The approach used is Collective Business Management or Socioentrepreneurship. This</p> |
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| | | | <p>approach is very relevant to the main objective of this project, which is to empower the community, especially the vulnerable groups in the project location. They manage the business in groups by utilizing social capital that is already strong among them. That is why the Socio-entrepreneurship approach is considered the best compared to other approaches, for example providing individual venture capital assistance.</p> |
| | <p>6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments?</p> | <p>Yes, but further information is required.</p> <p>The concept note states the project's alignment with national policies and programs, including Indonesia's NDC, Presidential Regulation Number 61 of 2011 concerning "The National Action Plan for Greenhouse Gas Emissions Reduction (RAN- GRK)", and the National Action Plan- Climate Change Adaptation (RAN- API). The project's Output 4.1 focuses on the Climate Village Program (Proklam), a national program supporting communities' adaptive capacity and mitigation efforts.</p> <p>CR9: Kindly explain whether relevant fisheries policies exist and, if so, how their strategic direction informs this</p> | <p>CR9: Refer to Paragraph 82. There are several fisheries</p> |

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| | | project. This is additional to the technical standards named in section E. | policies that are relevant to this project, as mentioned in the concept note (Section E). The design of this project has been adjusted based on spatial aspects, the use of fishing gear and fishing aids that are allowed, efforts to increase the added value of fishery products, aspects of utilization of fish resources based on: estimated potential, number of catches allowed; and utilization rate. This will be intensely consulted with the local government, to ensure it does not violate applicable regulations. |
| | 7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund? | Yes. | |
| | 8. Is there duplication of project / programme with other funding sources? | No. CR10: The document lacks a thorough list of relevant projects that could potentially overlap with the proposed project. This list should encompass projects in Indonesia in the same sector, implemented or not by the Implementing or Executing agencies. It is expected that lessons and lack of overlap is ensured across funding sources. CR11: The document indicates | CR 10: table of the relevant project, have been added (Table 8 Lessons that can be adopted from other projects-after paragraph 83) |

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| | | complementarity with a reduced number of projects implemented by Garis Biru. Complementarity or lack of duplication must be fully explained with all other projects (such as the GEF project in paragraph 84 and those not identified yet). | CR11: table of the relevant project, have been added (Table 8 Lessons that can be adopted from other projects-after paragraph 83) |
| | 9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons? | Yes. | |
| | 10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund? | <p>Yes, but further information is needed.</p> <p>The proponents have consulted with provincial and regional government representatives, youth groups, women, fishermen's groups, and village governments.</p> <p>Proponents have stated that consultations on gender issues will take place during the development of a fully developed proposal.</p> <p>CR12: Kindly provide dates when the consultations took place with each stakeholder (e.g., youth group, fishermen's groups, district authorities).</p> | CR12: The consultation date has been included in the caption of the consultation process image and annex 4 |
| | 11. Is the requested financing justified on the basis of full cost of adaptation reasoning? | <p>No.</p> <p>CR13: This project would support the creation of Youth Cadres. It has been</p> | CR13: Refer to paragraph 51 (3.3.2) |

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| | | <p>envisioned that youth would facilitate access to basic services (Output 3.3.2). It is unclear how this facilitation supports climate adaptation beyond business-as-usual development. First, why is it needed that youth facilitate access to basic (public) services? Second, some of the basic services indicated are public goods/policy outcomes such as food security (rather than a service per se). Third, and most importantly, the concept note needs to explain how access to these services will lead to community resilience (as stated). Fourth, how will the facilitated access be sustainable over time and lead to the adaptability of the community in the face of climate impacts?</p> | <p>The development of coastal villages requires the role of youth as the next generation and is open to technological and information developments. Youth awareness and concern is important to build in seeing village problems or vulnerabilities to the impacts of climate change.</p> <p>This activity will strengthen the network that supports the adaptive capacity of the village community, at least reducing the vulnerability of the community from basic aspects, such as education, health, food, and markets. This activity seeks a process of facilitating facilitate a coordination to the stakeholders who are able to support the adaptive capacity of village communities in dealing with the impacts of climate change., especially those related to basic services and local economic development, such as the Education, Health, Food Security in order to increase resilience to the effects of climate change. For example, the vulnerability of fishing households from the health aspect (including stunting), youth cadres will encourage a network of stakeholders to provide health services and counseling about</p> |
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| | | | clean and healthy living, so that the network strengthens the health capacity of fisherman households. It is hoped that cadres will act as organic facilitators in the village in supporting the sustainability of project initiatives |
| | 12. Is the project / program aligned with AF's results framework? | Yes. | |
| | 13. Has the sustainability of the project/programme outcomes been taken into account when designing the project? | Yes, but further information is needed. CR14: Regarding Output 1.2, please address how the new fishing spot will not be affected by changing climate conditions – would fish apartments be robust in face of extreme conditions? | CR14: Refer to Paragraph 36-39. Fish apartments will be more resistant to weather changes and sea waves. Fish apartments are installed below sea level at a depth of 10-15 meters from the fringing reef area. Fish apartment technology can become a new habitat for demersal fish that have high economic value and can become a new ecosystem through the coral recruitment process. In addition, the process of identifying, installing and monitoring catchment areas through fish apartments, prioritizes the transfer of knowledge and skills to |

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| | | | fishermen. Thus, this will become knowledge capital that supports fishermen in the future in overcoming the impacts of climate change that is happening |
| | 14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund? | <p>No.</p> <p>The document states that the project is Category B. However, this may be further assessed after identifying potential risks (see below).</p> <p>CR15: Please revise section K to indicate and provide a rationale for the project's potential risks (also a rationale for why these risks are not present). Please note that this first analysis should consider potential risks that may occur even if the project is aimed at or guided by the 15 principles. Hence, the lack of risk is not given because the project aims to support a particular issue or topic. A realistic assessment of potential risks is needed.</p> <p>Kindly follow the Fund's guidance on compliance with the ESP: https://www.adaptation-fund.org/wp-content/uploads/2016/07/ESP-Guidance_Revised-in-June-2016_Guidance-document-for-Implementing-Entities-on-compliance-with-the-Adaptation-</p> | <p>CR15: Has been revised in Section K.</p> |

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| | | Fund-Environmental-and-Social-Policy.pdf | |
| Resource Availability | 1. Is the requested project / programme funding within the cap of the country? | <p>Yes, but corrections are needed.</p> <p>CAR5: The figures do not sum up in the Table, Project / Programme Components and Financing. The total program cost US\$ 894,893 + the implementing fee US\$ 75611 sums to US\$ 970,504, however the amount of financing requested is 970,503.</p> <p>CAR6: Kindly adjust figures to use commas to denote thousands – as it is, figures are using commas and dots indistinctively – which may create confusion on the project's total cost.</p> | <p>CAR5: Has been revised. Total Project Cost US\$ 970,503</p> <p>Refer to Project Components and Financing, Section F, G & H in Part III.</p> <p>CAR6: Has been revised. Refer to Project Components and Financing, Section G & H in Part III.</p> |
| | 2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee? | Yes. | |
| | 3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)? | Yes. | |
| Eligibility of IE | 1. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board? | Yes. Kemitraan is an accredited National Implementing Entity. | |
| Implementation Arrangements | 1. Is there adequate arrangement for project / | n/a at concept stage | |

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| | programme management, in compliance with the Gender Policy of the Fund? | | |
| | 2. Are there measures for financial and project/programme risk management? | n/a at concept stage | |
| | 3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund? | n/a at concept stage | |
| | 4. Is a budget on the Implementing Entity Management Fee use included? | n/a at concept stage | |
| | 5. Is an explanation and a breakdown of the execution costs included? | n/a at concept stage | |
| | 6. Is a detailed budget including budget notes included? | n/a at concept stage | |
| | 7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund? | n/a at concept stage | |
| | 8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the | n/a at concept stage | |

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| | supervision of the M&E function? | | |
| | 9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework? | n/a at concept stage | |
| | 10. Is a disbursement schedule with time-bound milestones included? | n/a at concept stage | |



PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

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| Project/Programme Category | : Small Sized-Project/Programme |
| Country/ies | : Indonesia |
| Title of Project/Programme | : Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province |
| Type of Implementing Entity | : National Implementing Entity |
| Implementing Entity | : Kemitraan (Partnership for Governance Reform) |
| Executing Entity/ies | : Konsorsium Garis Biru |
| Amount of Financing Requested | : 970,503 (in U.S Dollars Equivalent) |

Project / Programme Background and Context:

1. The problem to be overcome is the increasing vulnerability of fishermen's livelihood sources in the Coastal Village due to the impact of climate change that has hit the coastal landscape in the Mamuju Regency, Majene Regency, and Polewali Mandar Regency, West Sulawesi Province. This situation threatens the sustainability of fishermen's livelihoods and food sources in the project location. Fishermen must study the phenomena of climate change they are facing and adapt to the impacts of climate change to continue to maintain the sustainability of their livelihood systems. Currently, the adaptation strategy to the impacts of climate change carried out by the community in the Project location is still very limited. Based on the context and problems found in the 9 Project Villages, a solution was formulated to **strengthen the adaptive capacity of coastal village communities in supporting food security as a response to climate change through Stakeholder Elaboration Actions in West Sulawesi Province**.
2. Climate change has an impact on the condition of natural resources and the socio-economic conditions of fishermen's households in the project location. The impact on natural resources is in the form of changes in fish seasons and changes in wind patterns (Ansaar.2019). In addition, there have also been a series of disasters due to climate change, such as tidal flooding and abrasion, including river sedimentation. The disaster process is influenced by changes in weather, sea surface temperature, high waves, and extreme weather intensity.
3. The socio-economic impact of fishermen's households is an indirect impact of climate change. This impact is preceded by changes in wind patterns and changes in fish seasons that affect fishing activities. As a result of these changes, fishermen find it difficult to determine the location and season of catching and the increased risk of going to sea (Ansaar.2019). The social impact of tidal flooding, abrasion, and river sedimentation is the disruption of the community's clean water sources.
4. Climate change also affects people's psychological well-being. Climate change is harmful to physical health, mental health, and social relationships from exposure to extreme weather events. The effects of climate change can provide increased anxiety. Climate change affects human awareness in responding to the surrounding conditions. The response will also have implications for relationships in interaction and their livelihood systems.

Socio-Economic in 9 Project Location Villages

5. The people of West Sulawesi (dominantly the Mandar Tribe), especially those in the Polewali Mandar,

Majene, and Mamuju districts are known as sailors, with a distinctive fleet called the *Sandeq* Boat. They (read: Mandar people) are known as master sailors with many life philosophies related to the sea. All boat bows are deliberately directed towards the sea, this is related to the belief that they must always be ready to go to sea. In Alimuddin (2013; 23-24), today's developments bring about changes among the coastal communities of Mandar, which are caused by the changing environmental context.

6. Fisheries Sector is one that contributes to the revenue for the economy in 3 districts locus project. Based on BPS data in 2021, the fishing production of 3 locus districts reached 53,839.49 tons, the largest in Polewali Mandar Regency reached 25,243.76 tons, Mamuju Regency 20,765.73 tons and Majene Regency reached 7,830 tons. Fish catch type is dominated by Tuna, Skipjack tuna, Mackerel tuna, Mackerel scad, Grouper fish and Flying fish. However, this sector is one of the most affected by the impacts of climate change.

Table 1 Basic Information in project location

| Type of information | District Mamuju | | District Polewali Mandar | | | District Majene | | | |
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| | Tadui | Bambu | Galeso | Patampanua | Tonyaman | Maliaya | Mekatta | Lombong | Malunda |
| Number of Population | | | | | | | | | |
| Male (person) | 1.866 | 2.226 | 1.584 | 3.779 | 3.404 | 1.104 | 1.154 | 1.075 | 1.487 |
| Female (person) | 1.791 | 2.146 | 1.638 | 3.717 | 3.353 | 1.057 | 1.098 | 1.075 | 1.392 |
| Number of fishery boats | | | | | | | | | |
| Small boat/jukung (1 person) | 174 unit | | 5 unit | | 27 unit | 163 unit | | | |
| Outboard Motor boat (*Min 2 person) | 593 unit | | 70 unit | | 103 unit | 97 unit | | | |
| Number of Fisherman (Estimated by Boats) | 1360 person | | 145 person | | 233 person | 357 person | | | |
| Type of fish catch (Dominan) | Tuna, Skipjack, Cob, Kite, Fragile and Flying Fish | | | | | | | | |
| Production of marine fisheries | 913,51 ton | | 770,34 ton | | 1122,93 ton | 763,9 ton | | | |

Source: BPS 2021

7. There is a decrease in the catch of marine fish from year to year. In 2020, the total catch reached 78.79 million tons, this number decreased when compared to 2018 and 2019 when they reached 84.51 million tons and 80.09 million tons respectively (FAO, 2022). Of the total production, Indonesia contributes up to 8%, the percentage is in 2nd position after China, 15% (FAO, 2022). From 2018 to 2020, Indonesia's total production stagnated but experienced a downward trend, in 2018 the total production was 6.71 million tons, in 2019 was 6.56 million tons, and in 2020 it fell to 6.43 million tons (FAO,2022). This condition is in line with what Gaol et al (2012) said.
8. Fishermen in the project location villages are small fishermen, the majority of whom are only equipped with a simple fleet of boats, makeshift fishing gear, and fishing activities based on local knowledge and experience. This condition certainly aggravates fishermen in facing climate change.
- i) It is difficult to determine the fishing area**
9. Like fishermen in other areas, fishermen in the project villages also have certain catch areas where they fish for many years. However, observations show that climate change has a major impact on changes in fish migration. In 9 project location villages, traditional fishermen who still rely on local knowledge and experience alone experience problems in determining the catch area. So far, the knowledge used in determining the location of the catch is no longer valid, this is then exacerbated by the fleet that uses only small boats (*Sandeq*) and simple fishing gear. This condition causes fishermen to find it difficult to determine the location of the catch, even though they have moved locations.
- ii) It is difficult to determine the fishing season**
10. Fishermen decide when to go to sea based on experience, where generally the fishing season is considered to be from April to August or the east wind season. However, climate change has an impact on determining the fishing season for fishermen, and the calculation of fishing time is no longer valid. This of course causes losses for fishermen, both in terms of the reduced number of catches and increasing production or operational costs.

iii) Increased risk of fishing activities

11. Climate change threatens the socio-economic conditions of fishermen, including the increased risk of going to sea due to the threat of increasing storms and extreme waves (Diposaptono. 2009:102). In the Makassar Strait, including fishing areas for fishermen in West Sulawesi and its surroundings. Extreme waves and strong winds are a threat that often comes when the west and rainy seasons arrive. This threat is often experienced by fishermen at the project site so the activity of catching fish for Terpak must be stopped. Moreover, boats and fishing facilities cannot yet be said to be able to face storms or big waves.

iv) Declining water quality of the population

12. In addition to having an impact on fishing activities, at the project location, the coastal community's water sources are not only obtained from wells but also taken from rivers which are located not far from their residential areas. The results showed that the quantity and quality of the water obtained decreased. In the dry season, the quantity decreases, while in the rainy season the water quality is not good, especially from river flows. The decline in water quality can be seen in the color that turns cloudy due to prolonged rain.

Development Level in West Sulawesi

13. West Sulawesi Province is part of the SULU Sulawesi Marine Ecoregion & Triangle Coral Reef, with a coastline of 617.5 km. These conditions make the area of West Sulawesi has great marine and fishery potential. However, at present, these resources are under threat from a new source, namely global climate change which is expected to have a wider impact (IPCC, 2007b). The focus of development in the coastal sector of West Sulawesi can no longer be done in a business-as-usual way but encourages adaptive efforts as a form of response to the impacts of climate change.
14. The LongTerm Development Plan (RPJP) of West Sulawesi Province 2005-2025, aims at the development of natural resources and a sustainable environment. In the fisheries and marine sector, the direction of development is to: 1) increase the production and added value of the fishery and marine products such as seaweed, tuna, sea cucumbers, lobsters, and others; 2) increase the ability of fishermen in managing natural resources; and 3) reduced violations and destruction of coastal and marine resources.
15. West Sulawesi Province as one of the buffer zones for the [State-National](#) Capital (IKN), is expected to be able to support IKN from the aspect of natural resource potential, including the fisheries and marine sectors. Of course, future development efforts will face the challenges of climate change impacts.
16. Development efforts that are adaptive to climate change in West Sulawesi, are faced with the relatively low quality of human resources, especially poverty and malnutrition. Various modeling studies conducted have proven that poverty and child malnutrition or stunting are indirect impacts of climate change and further weaken household resilience in fulfilling food sources, especially fishing households. In the 3 districts where the project is located, they are ranked at the top in terms of poverty and stunting rates in the province of West Sulawesi. Even West Sulawesi Province ranks the second highest stunting rate in Indonesia after East Nusa Tenggara.



Figure 1 Project Location Map

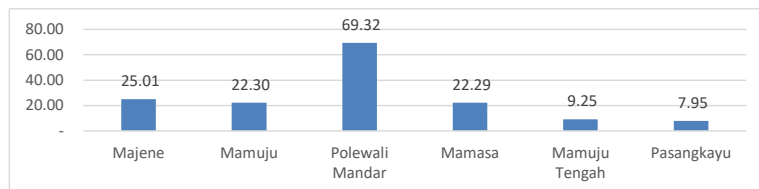


Figure 2 Poverty rate in West Sulawesi District (Thousand)

17. The poverty rate in the 3 project locations ranks in the top 3 out of 6 districts in West Sulawesi Province. Polewali Mandar Regency was the highest at 69.32 thousand people, Majene Regency 25.01 people and Mamuju Regency reached 22.30 people.

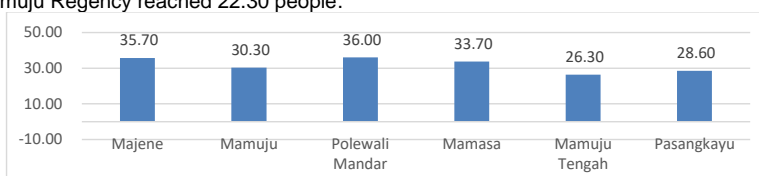


Figure 3 Percentage of Stunting in West Sulawesi District (%)

18. West Sulawesi Province ranks second with the highest stunting rate in Indonesia reaching 33.80%. In the 3 districts where the project is located, it ranks at the top of stunting cases. Polewali Mandar Regency reached 36%, Majene Regency reached 35.70% and Mamuju Regency reached 30.30%. Adaptive efforts to the impact of climate change are things that must be done at the project site, to increase community resilience in fulfilling household food.

Environment and Disasters in West Sulawesi

19. West Sulawesi Province is classified as an area that is vulnerable to disasters, including the impact of climate change. In the [Spatial Plan Document \(RTRW\)](#) of West Sulawesi Province, the 3 regencies where the project is located are inseparable from areas prone to landslides, floods, abrasion, earthquakes, and tsunami¹.
20. In the village where the project is located, Wonomulyo District, coastal abrasion is a routine disaster that hits the coast. Several handling efforts have been made by the government through the construction of embankments and breakwaters. However, his condition has not been able to withstand the impact of the high waves².
21. Meanwhile, in Malunda Sub-district, changes in natural conditions and disasters are also felt by the local community. Based on the results of Yudhicara's research (2011), most of the coastline of Malunda is prone to abrasion and³. The disaster process is influenced by changes in weather, sea surface temperatures, high waves and extreme weather intensity ekstrim.
22. The process of changing environmental landscapes in coastal areas is influenced by changes in weather, sea surface temperature, high waves, and extreme weather intensity. At the project location, several environmental changes were felt by the community, as follows:
- i) **Change of Fish Season**
23. The results of the study describes if there is a condition where the temperature in the ocean changes, it can cause the fish to move to a safer place, and usually the fish only appear after seawater conditions return to normal. It was further explained that under certain conditions the fish obtained tended to be very few even though they had been at sea for days. In addition to changes in the process of rising seawater, changes in the level of saltiness or salt content of seawater, also include factors that cause the displacement of various animal species due to incompatibility of changing living conditions (Tauli-Corpuz, 2009: 36). This change in fish seasons greatly affects fishermen's income, considering that certain types or species of fish can usually only be caught in certain seasons, such as Tulisi' (a type of

¹ PERDA No 1 Tahun 2014 Tentang RTRW Provinsi Sulawesi Barat tahun 2014-2034

² <https://www.mongabay.co.id/2020/04/03/abrasi-parah-kampung-mampie-dan-penyelamatan-penyu-terancam/>

³ Yudhicara.2011.Proses Abrasi di Kawasan Pantai Lombong, Majene, Sulawesi Barat.

Banjar), Balana and Manori fish⁴.

ii) Uncertain wind pattern

24. Fishermen in West Sulawesi generally understand that two wind seasons blow in the waters, namely the east and west winds. The results of the study explain that the east wind season usually lasts from April to August, while the west wind season lasts from September to January. However, these estimates have changed and become difficult for fishermen to predict. There are conditions where based on the experience and knowledge of fishermen, currently the east wind season blows, but when it comes to the sea, it turns out that the west wind appears. This endangers the safety of fishermen when they are at sea.

iii) Disaster and climate change impacts

25. Changes in climate patterns have an impact on the intensity of disasters in coastal areas such as high waves, tidal flooding and abrasion. At the project location, the disaster had an impact on damage to access to sea, public facilities such as coastal tourism, and community settlements⁵. Some simple adaptation efforts were carried out by the community by fortifying houses with sacks filled with sand and saving valuables, as a form of minimizing material losses due to disasters.

Table 2 data on the value of losses from the disaster impact of Mamuju district

| Type of Disaster | Danger area (ha) | Soul exposed | Infrastructure (IDR Billion) | Economic (IDR Billion) | Environment (ha) |
|----------------------------|------------------|--------------|------------------------------|------------------------|------------------|
| Earthquake | 34,231 | 352,652 | 797,109 | 556,202 | 0 |
| Tsunami | 4,288 | 49,789 | 119,109 | 8,914 | 8 |
| Flood | 28,014 | 211,394 | 682,788 | 673,05 | 279 |
| Flash Flood | 18,96 | 45,641 | 373,415 | 232,802 | 272 |
| Landslide | 342,695 | 81,228 | 582,62 | 1,902,733 | 34,308 |
| Forest and land fires | 96,370 | 0 | 0 | 1,077,073 | 14,243 |
| Drought | 397,308 | 550,145 | 0 | 2,165,149 | 99,483 |
| Extreme weather | 32,434 | 266,55 | 1,654,844 | 653,368 | 0 |
| Extreme waves and abrasion | 14,76 | 187,56 | 509,441 | 273,125 | 112 |
| Covid 19 | 1,895 | 381,404 | 0 | 0 | 0 |
| Liquefaction | 29,610 | 263,207 | 571,484 | 461,081 | 578 |

Source: inarisk.bnpb.go.id

26. Based on BNPB's projection data, the level of losses from disasters that occur is very high, whether it's the lives that are exposed, physically, economically to the environment. As an example of the Extreme Wave and Abrasion Disaster, the level of economic loss in Mamuju district reached 273 billion rupiah, the affected people were 187,560 people, with physical loss of 509 billion rupiah.

Table 3 data on the value of losses from the disaster impact of Polewali Mandar district

| Type of Disaster | Danger area (ha) | Soul exposed | Infrastructure (IDR Billion) | Economic (IDR Billion) | Environment (ha) |
|----------------------------|------------------|--------------|------------------------------|------------------------|------------------|
| Earthquake | 26,534 | 662,27 | 653,628 | 431,202 | 0 |
| Tsunami | 1,904 | 34,211 | 36,84 | 3,188 | 1 |
| Flood | 24,587 | 413,783 | 1,133,291 | 623,775 | 89 |
| Flash Flood | 10,901 | 64,695 | 361,417 | 269,642 | 100 |
| Landslide | 128,895 | 89,804 | 509,178 | 3,161,742 | 7,885 |
| Forest and land fires | 62,697 | 0 | 0 | 1,128,024 | 5,821 |
| Drought | 144,893 | 964,032 | 0 | 2,293,370 | 13,333 |
| Extreme weather | 32,437 | 541,783 | 2,753,850 | 834,238 | 0 |
| Extreme waves and abrasion | 18,901 | 334,053 | 887,702 | 466,951 | 62 |
| Covid 19 | 3,441 | 683,859 | 0 | 0 | 0 |
| Liquefaction | 32,082 | 626,121 | 983,086 | 501,680 | 355 |

Source: inarisk.bnpb.go.id

27. In Polewali Mandar Regency, the type of Extreme Wave and Abrasion Disaster has a projected economic loss of 466 billion rupiah, physical loss reaching 887 billion rupiah with the number of people exposed to 334,053 people

Table 4 data on the value of losses from the disaster impact of Majene district

| Type of Disaster | Danger area (ha) | Soul exposed | Infrastructure (IDR Billion) | Economic (IDR Billion) | Environment (ha) |
|------------------|------------------|--------------|------------------------------|------------------------|------------------|
| Earthquake | 53,218 | 254,683 | 1,231,743 | 927,187 | 0 |
| Tsunami | 1,468 | 31,855 | 135,155 | 7,904 | 0 |
| Flood | 1,471 | 50,552 | 180,955 | 18,802 | 0 |
| Flash Flood | 3,318 | 7,270 | 45,426 | 53,899 | 33 |

⁴ Ansaar. 2019. Pola Adaptasi Nelayan Terhadap Perubahan Iklim di Desa Bambu Kecamatan Mamuju Kabupaten Mamuju. Balai Pelestarian Nilai Budaya Sulawesi Selatan. Makassar

⁵ <https://www.mongabay.co.id/2020/04/03/abrasi-parah-kampung-mampie-dan-penyelamatan-penyu-terancam/>

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| | | | | | |
|----------------------------|--------|---------|---------|-----------|-------|
| Landslide | 84,667 | 96,324 | 206,777 | 1,069,214 | 3,544 |
| Forest and land fires | 46,806 | 0 | 0 | 761,065 | 3,571 |
| Drought | 40,786 | 298,750 | 0 | 310,376 | 8,273 |
| Extreme weather | 3,468 | 163,201 | 610,133 | 31,465 | 0 |
| Extreme waves and abrasion | 1,471 | 50,552 | 180,955 | 18,802 | 0 |
| Covid 19 | 94 | 184,469 | 0 | 0 | 0 |
| Liquefaction | 3,077 | 102,158 | 323,958 | 28,881 | 1 |

Sumber: inarisk.bnppb.go.id

28. In Majene Regency, for the type of Extreme Wave and Abrasion disaster, it has a projected economic loss of 18 billion Rupiah, physical loss of 180 billion Rupiah with the number of people exposed to as many as 50,552 people.
29. The Project Villages in the 3 regencies, of course, cannot be separated from the projected losses from disaster events. Coastal village communities have to deal with environmental changes in terms of livelihoods plus vulnerability to disasters. Through this project, it is expected to be able to minimize losses experienced by rural communities, through an adaptation process so as to build resilience to climate and disasters.



Figure 4 Documentation of Climate Change Impact at the project site

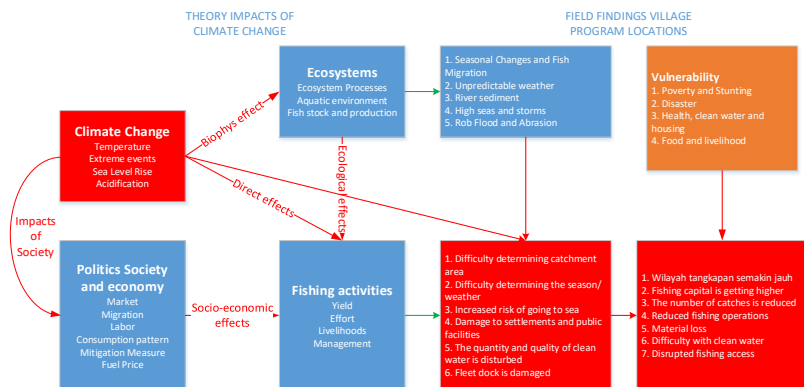


Figure 5 Ecological, Social Economic effects of Climate Change in Project Location

30. Description of community problems and vulnerability to climate change impacts that occur in the project location, the Blue Line Consortium encourages the **strengthening of the adaptive capacity of coastal communities in supporting food security as a response to climate change through the Elaboration Action of the Parties in West Sulawesi Province.**

Project / Programme Objectives:

The main objectives of the Adaptation Fund project in West Sulawesi are:

1. Strengthening food security and livelihoods for coastal communities in the face of climate change
2. Capacity building of coastal community groups in climate change adaptation strategies
3. Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation actions

Project / Programme Components and Financing:

| No | Project Component | Expected Concrete Outputs | Expected Outcomes | Amount (US\$) |
|----|---|--|--|---------------|
| 1 | Strengthening food security and livelihoods for coastal communities in the face of climate change | 1.1. There is a map of the catchment area that adapts to migration patterns and fish seasons 1.2. There is a new spot in the catchment area through 150 Fish Apartments at the project location | Strengthened the adaptive capacity of fisherman in the face of changes in migration and fish seasons | 117,572 |
| | | 2.1. An increase in 3 units of Floating Net Cages managed by vulnerable groups 2.2. The Management of the Coastal Food House System by the Women's Group in several villages (pilots) which are the centers for food and product processing | Increased the diversity of livelihoods and income sources in vulnerable groups at the project site | 187,941 |
| 2 | Capacity building of coastal community groups in climate change adaptation strategies | 3.1. 9 fishermen group increase their capacity in terms of institutional and sustainable coastal ecosystem management 3.2. 100 community people per village increased knowledge and awareness of responsiveness in terms of impacts and | Increased awareness and capacity of coastal communities in climate change adaptaion strategies | 325,800+ |

| | | | | |
|--------------------------------------|---|---|--|----------------|
| | | adaptation strategies for climate change and disaster emergencies 3.3. The formation of coastal youth cadres | | |
| 3 | <i>Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation actions</i> | 4.1. Registration of 3 villages as Proklim village 4.2. Formulation of village action plans/policies in the effort of climate change adaptation strategy 4.3. 1 Coastal tourism villages improve their management 4.4. Building commitment to support from stakeholders in efforts to adapt to climate change at the project site 4.5. Managed project knowledge products as a form of dissemination of climate change adaptation | Establishment of multistakeholders elaboration action and policy support in response to the impact of climate change | 179,821 |
| 4 | Project Execution Cost | | | 83,758 |
| 5 | Total Program Cost | | | 894,8932 |
| 6 | Project/Programme cycle Management Fee charged by the Implementing Entity (if applicable) | | | 75,611 |
| Amount of Financing Requested | | | | 970,503 |

Projected Calendar:

| Milestones | Expected Dates |
|---|--|
| Start of Project/Programme Implementation | 01 October <u>June</u> 2022-2023 |
| Mid-term Review (if planned) | 01 April <u>November</u> 2024 |
| Project/Programme Closing | 30-31 September <u>Mei</u> 2025-2026 |
| Terminal Evaluation | 30-31 November <u>Agustus</u> 2025-2026 |

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project / programme components

31. This project is designed to support climate change responsive development that can increase incomes, increase food security, and minimize losses from the impacts of climate change disasters experienced by households in coastal village communities. This will contribute to reducing poverty and stunting rates in the project location districts which are very high.
32. Without this project intervention, fishermen's sources of income are only fully dependent on fishing activities who face difficulties in obtaining catch due to changes in fish migration, changes in seasons and the risk of going to sea that endangers their lives. In addition, the impact of climate change disasters will further exacerbate material losses that must be borne by coastal communities. This condition makes coastal communities vulnerable to climate change in fulfilling family food and income accumulation which should be the capital of sustainability in developing their businesses. If this continues, there will be an accumulation of vulnerabilities that will exacerbate the impacts of climate change on coastal communities.
33. The most vulnerable groups in the fishing community must be involved as direct beneficiaries in productive activities, so as to build their livelihoods. The fulfillment of this will be encouraged through a multi-stakeholder collaborative action approach and the dissemination of learning which is expected to increase synergistic development support in responding to the impacts of climate change.

Project Component 1: Strengthening food security and livelihoods for coastal communities in the face of climate change

34. Strengthening food security and livelihoods will reduce the vulnerability of coastal communities, thereby strengthening community climate resilience. This strengthening will be achieved if the adaptive capacity of fishermen is strengthened in the face of changes in migration and fishing seasons (Outcome 1) and the increased diversity of sources of livelihood and income of the community in the project location (Outcome 2).

Outcome 1: Strengthened the adaptive capacity of fishermen in the face of changes in migration and fish seasons.

Output 1.1: There is a map of the catchment area that adapts to migration patterns and fish seasons

35. Map of the catchment area and the latest calendar that integrates local knowledge of fishermen with technology that can be a reference for fishermen in the 9 project villages. In extreme weather conditions such as high-intensity storms, fishermen need more and more complex resources to remain productive. In such conditions, it does not only require the ability of fishermen and the fleet used, but also to consider the time factor and the location of the waters to be explored. This latest map and calendar will be very helpful for fishermen. As a result, fish circulation and migration patterns are mapped and the fishing season calendar is updated. So that it can reduce the operational costs of fishermen and increase the number of fish catches. The steps to achieve this are as follows:
 - **1.1.1.** Study of migration patterns, distribution and seasonal calendar: This activity uses a Participatory Rural Appraisal (PRA) approach in identifying initial information in the form of a Focus Group Discussion (FGD) regarding the distribution and types of fish caught, analysis of constraints and potentials as well as a seasonal calendar. This information becomes a reference for possible changes in fish circulation and migration patterns. This process involves related parties, including fishermen, community leaders, youth leaders, government and academics as well as involving experts in the field of fisheries and marine affairs.
 - **1.1.2.** On-site audit and mapping of fishing ground: after obtaining an initial description of the results of previous studies, visits to indications of new catch areas as well as fishing trials are carried out in order to produce an analysis of the potential of the area. There are at least 6 locations that are sampled by taking into account the observation of the fishing season. This activity is able to minimize the difficulty of fishermen in determining the location of the catch due to the impacts of climate change. The process of preparing the map will involve fishermen, community leaders who have been relying on local knowledge in sea activities and then combined with the involvement of experts. The methodology used is a survey and Participatory Rural Action (PRA) which contains a calendar of catch seasons, so that it will produce a distribution of catchment areas (including fish types) which is analyzed along with the season calendar. The use of this map will be evaluated periodically by

fishermen groups, such as the number of catches in the spot and the time of the catch, so that fishermen are able to update the catch location information according to the conditions that occurred at that time and the form of anticipation of the location of the catch which in a certain period is not good. In addition, the MAP results of THE PRA can be combined with the [Climatology Agency \(BMKG\)](#) info application which contains weather, climate, and earthquake information. So this process is also a form of sharing local and scientific knowledge from experts and program teams.

- **1.1.3. Workshop for the new Fishing Ground and Season Calendar:** data generated from previous activities, then conducted a Workshop that clarifies the results with relevant parties, consisting of groups of fishermen, community leaders, youth leaders, academics, government and expert teams. The result is a calendar of fishing seasons and maps of fishing areas that become a reference for fishermen.

Output 1.2: ~~The existence of a new spot for the fishing ground through the fish apartment at the project site~~ Fisherman are able to identify and develop new fishing spots through fish apartments

~~36. This output will strengthen the capacity of fishermen to identify and develop new catchment areas through fish apartments. Knowledge transfer is carried out by involving experts and with an assistance process.~~

This increase in fishing ground spots will be an additional alternative catchmen area for fishermen in the project village, especially in the event of extreme weather that does not allow for long sailing. This spot will later be included in the map of the catchmen area. This spot increase is carried out through the facilitation of fish apartments, so it is expected to increase the number of fishermen's catches.-

~~37. At the project site, fishermen use traditional sponges as tools to be used as pelagic fishing sites. Rumpon is made of bamboo, floats above the surface of the waters, the bottom stretches a rope of 10 to 15 meters rope vertically, ropes are attached to coconut leaves and various tree branches that are still equipped with leaves, then ballast so that they float in the water column. Rumpons are installed in the Neritic marine zone until the Meso Pelagic uses anchors. These characteristics cause the rumpon to be damaged faster and vulnerable to damage in the event of bad weather that causes waves,~~

~~36-
37. At the project site, the main target of fishermen is pelagic fish caught in the Neritic sea zone to the Pelagic Meso. The waters are open so they are vulnerable to weather anomalies, such as sudden changes in the weather that trigger strong winds and waves. These conditions affect the timing and intensity of fishing for fishermen. Therefore, output 1.2 seeks to present fishing locations with demersal fish catch targets. Fish apartments are installed at the bottom of the waters in the reef edge zone at a depth of 10 meters to 15 meters, so they are not affected by weather anomalies. Fish apartments can be a habitat for demersal fish and can be a place for corals to grow.~~

~~38. At the project location, the form of climate change felt by coastal communities (Fishermen) is a weather anomaly. Weather anomalies cause changes in wind direction which have an impact on increasing sea waves. As a result, the fishing season becomes difficult for fishermen to predict. As a note, fishermen in the project location are small scale and traditional fishermen, so they are very dependent on weather conditions. To overcome this, fish apartments can be a solution to create new fishing locations for fishermen. Fish apartments are installed at a depth of 12 to 13 meters at the bottom of the water so that they are not affected by waves, to overcome surface waves and cannot interfere with fishing activities, apartments are installed in semi enclosed water areas, for example in bays, headland sides, or on relatively low waters, safe from the waves. Types of fish that can be caught after installing fish apartments are demersal fish that have important economic value such as snapper and grouper or other types of fish.~~

~~38. Fish apartments will restore fish resources. This spot naturally provides food for fish, making it a good place for spawning adult fish, as well as protection and rearing for small fish. This fish apartment is a form of application of underwater restocking technology combined with the selection of spot locations that have minimal risk of weather anomalies (10-15 meters depth). Monitoring will be carried out periodically with fishermen. This is expected to provide optimal benefits for the availability of catchment resources. In the old spot, it was in an area that was prone to weather anomalies and there was no effort to restore fish resources or underwater restocking. At the project location, the form of climate change felt by coastal communities (Fishermen) is a weather anomaly. Weather anomalies cause changes in wind direction which have an impact on increasing sea waves. As a result, the fishing season becomes difficult~~

for fishermen to predict. As a note, fishermen in the project location are small scale and traditional fishermen, so they are very dependent on weather conditions. To overcome this, fish apartments can be a solution to create new fishing locations for fishermen. Fish apartments are installed at a depth of 12 to 13 meters at the bottom of the water so that they are not affected by waves, to overcome surface waves and cannot interfere with fishing activities, apartments are installed in semi-enclosed water areas, for example in bays, headland sides, or on relatively low waters, safe from the waves. Types of fish that can be caught after installing fish apartments are demersal fish that have important economic value such as snapper and grouper or other types of fish.

39. Output 1.2 seeks to increase the capacity of fishermen in the form of introducing alternative fishing aids that are more resistant to changes in weather and sea waves. Fish apartments are installed below sea level at a depth of 10-15 meters from the fringing reef area. Fish house technology can become a new habitat for demersal fish that have high economic value and can become a new ecosystem through the coral recruitment process. In the process of installing a fish apartment requires various stages, such as: The stages of achieving such results are as follows:

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- 1.2.1. Survey of fish apartment placement location: Fish Apartment Location Survey: This survey was conducted in a participatory manner of between fishermen with community leaders, and experts. This survey is aimed to determining a worthy location for the placement of fish apartments. Eligibility criteria include, the waters are in semi-closed waters (bays), do not disturb coral reef ecosystems, are easily accessible to fishermen, the water surface is not choppy when the wind is strong. The survey begins with analyzing the area through mapping technology, then determining survey points, conducting surveys (dives to take underwater biophysical data, physical and chemical measurements of waters), preparing reports and recommendations for the location of fish apartment installation to identify the location of fish apartments which will later become new habitats for fish. The survey is carried out to see the area or spot that needs to be improved through fish apartments. The survey stage starts from survey planning, implementation and discussion.
- 1.2.2. Assembling and installing a fish apartment: this stage is carried out after the agreement on the location of the installation of a fish apartment. This stage is carried out in a participatory manner through workshops, experts will explain the characteristics of fish apartments, how to assemble, and how to install. Then simulation and practice. Fish apartments will be assembled and installed by fishermen after this activity is carried out. Facilitation of the increase of fish apartment units: After obtaining the right location, then the installation of fish apartments is carried out, as a house or new habitat for fish.
- 1.2.3. Fish Apartment Management: this stage is the stage where, fishermen manage and regulate fishing in the apartment area. The apartment will be monitored regularly, until it is declared that fishing can be carried out. All of these stages involve fishermen as key actors in output 1.2. This is done so that fishermen understand all processes so that they are able to plan stages independently when this project is completed. Local management of fish apartments: Increasing the capacity of fishermen is important in the management of fish apartments, including regular monitoring of developments.

Outcome 2: Increased the diversity of livelihoods and income sources in vulnerable groups at the project site.

Output 2.1: There is an increase in the encroachment of floating nets managed by vulnerable groups

40. Vulnerable groups are the most vulnerable to the catastrophic impacts of climate change at the project site. Their economic and social capacity is minimal. The intended vulnerable groups are poor households (including stunted households), female heads of households, disabilities, people who do not have the ability or capital to go to sea anymore. Organizing vulnerable groups will be carried out to strengthen their capacity to find alternative sources of income as a response to the impacts of climate change. One of them is the skill of cultivating fishery through floating net cages, from identification to management. The increase in floating net encroachment in project villages will be a source of income for coastal communities, especially vulnerable groups. Vulnerable groups are the most vulnerable to the catastrophic impacts of climate change at the project site. Their economic and social capacity is minimal. The intended vulnerable groups are poor households (including stunted households), female heads of households, disabilities, people who do not have the ability or capital to

~~go to sea anymore~~ Floating Net Cage is a fish farming and enlargement facility. Its installation on the surface of the seawater in waters that are semi-closed, or not affected by waves and currents triggered by weather anomalies. In cultivation and enlargement, it requires several skilled personnel to prepare fish feed, check water quality, and maintain floating Net Cage with the principles of good aquaculture practices (GAP) management. This is what we mean will be able to provide a variety of alternative livelihoods.

The stages of achieving these results include:

- **2.1.1.** Participatory Poverty Assessment and Monitoring (PPAM): The initial stage starts from the assessment process of vulnerable groups using the PPAM method, in order to obtain targeted management candidates from vulnerable community groups. This process will involve the community, village governments and companions. The expected result is the existence of a list of households that are classified as vulnerable categories, both from economic, socio-cultural and other exclusivity aspects according to mutual agreement.
- **2.1.2.** Organizing Vulnerable Groups: After conducting the process of identifying vulnerable groups, organizing is then carried out to strengthen vulnerable groups, both in terms of capacity and institutions. The organization of vulnerable groups will be directed at strengthening institutionally and individual capacities in the management of the Floating Net Encroachment. The management model of floating net encroachment is carried out institutionally with the principle of shared ownership and benefits. So that, apart from having human capital, they are also supported through social, institutional and financial capital. The vulnerable groups in question are the poor and fishermen who are unable to carry out distant sea activities. This organization will strengthen the management of Kerambah and contribute to their income institutionally and individually through farmed fish and enlargement.
- **2.1.3.** Floating Net Encroachment Management Training: as an effort to prepare optimal management of floating net encroachment, capacity building is carried out for prospective managers related to aspects of floating net encroachment cultivation.
- **2.1.4.** Survey of Floating Net Cage location: This activity is carried out to ensure the location of the floating net cage. This activity is carried out by involving fisherman and accompanying with facilitator.
- **2.1.5.** Facilitating of Floating Net Cage and fish farming facilities: The installation process is carried out by the Manager and facilitator.

Output 2.2: Managed Coastal Food House System by Women's Groups which become food centers and processing of production products

41. Strengthening women's groups through the food house system will become a center for food and processing of production products. Currently, there are activities for processing catches by women's groups in project villages, but they are still very limited, ranging from capacity, supporting facilities, to marketing systems.



Figure 6 Processing Activities of Marine Indah Group's Catches, Tonyaman Village



Figure 7 Condition of Silele Flower Group Production House⁶

42. This project will support the development of women's groups at the project site through the Rumah Pangan system for food centers and processing of products. This group will be integrated with the fishermen's group and managers of the Floating Net Encroachment as a supplier of raw materials. The group business approach prioritizes Collective Business Management or Socioenterpreneurship. In addition, the activities of this group are sought to synergize with the food security program in the district where the project is located. The stages of achieving these results include:

- **2.2.1.** Inventory and mapping of village food sources: This activity is a basic survey at the village level to analyze food conditions in the village, both in terms of availability or supply chain and in terms of food quality. The form of this activity is a participatory baseline survey, where community involvement in the inventory process is supported by a team of experts. The results of this activity will be a reference for the Coastal Food House to see opportunities for food improvement in the village. Of course, these efforts will be synergized to the village and district governments through recommendations on the results of inventory and mapping of village food sources, which hopefully can improve the availability and quality of food for rural communities.
- **2.2.2.** Research on Consumption Patterns of Rural Communities: This activity is related to inventory activities and mapping of village food sources. This activity is to see the extent of the consumption patterns of rural communities, which affect the improvement of family nutrition, what are the constraints of fulfillment and fulfillment strategies. The results of this activity will also become recommendations for the government and related parties in terms of increasing consumption patterns as an effort to prevent stunting.
- **2.2.3.** Women's group organizing: This activity is important to strengthen the institution of women's groups. This process will be accompanied by local assistance personnel, strengthening solidarity, knowledge and mechanisms of group work as well as the need for administrative legality of the institution. This series of activities also includes efforts to strengthen coordination and advocacy for the delivery of recommendations related to food security to the government and other relevant parties.
- **2.2.4.** Collective Business Management Training: In addition to organizing, a series of capacity building in collective business governance was also carried out. One of the approaches used is Socioenterpreneurship. In addition, this training also contains the improvement of women's leadership capacity, advocacy and technical financial governance.
- **2.2.5.** Product Diversification Training of catches for women's groups: This training is in order to increase the processing capacity of products for the group, resulting in diverse and high-selling value products. This activity ensures the involvement of all relevant groups, including fishermen as those who carry out capture fisheries activities, in order to ensure the supply of marine catch products that will be managed by women's groups into higher selling value food products. For example, managing marine catches into shredded, pupu' with or various other value-added products with more market value and durable packaging.
- **2.2.6.** Product Market Access Expansion Training: The development of market networks is very important for business continuity. Efforts to expand market access need internal analysis and readiness. Therefore, as a result of this training, women's groups are independently able to analyze market expansion targets, both local and national by applying digital marketing developments.

⁶ Sumber: Inas Zharifah Atiqah.2016

- **2.2.7. Facilitation of Product Licensing and packaging:** An important aspect of legality in assessing the quality of the products produced, be it PIRT, BPOM or Halal Labels. In addition, packaging is one of the determining factors for the value of the product apart from its quality.

Project Component 2: Capacity Building of Coastal community groups in climate change adaptation strategies

- Climate change has an impact on the state of natural resources and socioeconomic conditions of fishing households at the project site. The impact on natural resources is in the form of changes in fish seasons and changes in wind patterns. In addition, there is also a series of disasters due to climate change such as tidal floods and abrasion⁷ including river sedimentation. The disaster process is affected by weather changes, sea surface temperatures, high waves and extreme weather intensity.
- The socioeconomic impacts of fishing households are indirect impacts of climate change. This impact is preceded by changes in wind patterns and changes in fish seasons that affect fishing activity. As a result of these changes, fishermen have difficulty determining the location and catch season as well as the increased risk of going to sea. The social impact of tidal flooding, abrasion and river sedimentation is the disruption of clean water sources of the community.
- Climate change also affects people's psychological well-being. Climate change is harmful to physical health, mental health and social relationships from exposure to extreme weather events. The effects of climate change can provide increased anxiety. Climate change affects human consciousness in responding to the surrounding conditions. The response will also have implications for relationships in interacting and their livelihood systems.
- There are ecological vulnerabilities that can aggravate the impacts that must be felt by the community at the project location. Based on data from the Climate Change Vulnerable Area of West Sulawesi, several project locations are included in the red zone, namely in Bambu and Tadui villages, Mamuju Sub District Mamuju District⁸, prone to floods and landslides. This condition applies in 9 villages where the project is located when viewed from the intensity of the disaster impacts of climate change that are getting worse. On the other hand, the project location includes earthquake and tsunami disaster prone areas.

Table 5 Data earthquake and tsunami West Sulawesi

| No. | Year | Location | Type | Strenght | Effect |
|-----|--------------|----------------------------|----------------------|----------|---|
| 1 | 11- 4-1967 | Tinambung, Polewali Mandar | earthquake - Tsunami | 5,3 SR | 58 people died, 100 injured, and 13 missing and landslides occurred |
| 2 | 23- 2-1969 | Majene | earthquake - Tsunami | 6,9 SR | 64 people died, 97 were injured, 1,287 houses and mosques were severely/lightly damaged. |
| 3 | 6- 9 - 1972 | Mamuju | earthquake | 5,8 SR | Damage to buildings, vibrations felt until Majene |
| 4 | 8 - 1 - 1984 | Mamuju | earthquake | 6,6 SR | 2 people died, 5 seriously injured, 24 lightly injured and 70 buildings were heavily damaged and 278 lightly damaged. |
| 5 | 8- 4 - 1993 | Ulaweng, Mamuju | earthquake | 5,3 SR | Landslides, and heavy and light damage to buildings. |
| 6 | 14-1-2021 | Majene | earthquake | 5.9 SR | Damage and casualties |
| 7 | 14-1-2021 | Majene | earthquake | 6.2 SR | Damage and casualties |

Source: Processed from the Center for Volcanology and BMG Balai Region IV and several sources, 2022

- Capacity building of coastal community groups is very necessary as a concrete effort in dealing with the impacts of climate change and disaster emergencies.

Outcome 3: Increased Awareness and Capacity of Coastal Communities in Climate Change Adaptation Strategies.

Output 3.1: 9 group fishermen increase capacity in terms of institutional and sustainable coastal

⁷ <https://www.mongabay.co.id/2022/02/12/ketika-banjir-pesisir-makin-parah-di-sulawesi-barat/>

⁸ Balai Pengendalian Perubahan Iklim dan Kebakaran Hutan dan Lahan Wilayah Sulawesi Tahun 2018

ecosystem management

48. Increasing the institutional and individual capacity of fishermen is very important. At the project site, there are several groups of fishermen, but the conditions are not active. Capacity building related to climate change, disasters and sustainable management of coastal ecosystems is very rare for them.



Figure 8 Group Secretariat

49. Through this project, institutional strengthening and individual capacity of fishermen will be carried out to be able to realize and provide readiness in facing the impacts of climate change. In addition, it also encourages the improvement of fishermen's institutional networks both to the government and to other related parties. The stages to achieve this are as follows:

- **3.1.1. Organizing Fishermen's Groups:** This activity seeks to strengthen fishermen to jointly identify problems, plan needs and mobilize resources including networks to strengthen fishermen's activities and institutions. This process will be accompanied by a field officer as a facilitator, so that the organization runs systematically. The expected results of fishermen groups can run independently to meet the needs and challenges of changes that will occur in the future, including climate change. Administratively, institutions also encourage increased legality and group work mechanisms. So they have the opportunity to get support related to institutional activities and go to sea in the context of facing the challenges of climate change.
- **3.1.2. Training 5 stages of mentoring for facilitators:** Increasing the capacity of field officers as facilitators in project villages. Capacity building starts from the essence of the participatory approach, community facilitation and the role of facilitators, basic principles and community objectives, basic communication skills in community facilitation and the framework for identifying problems and issues in community facilitation. It is hoped that facilitators will be able to be together with the community in understanding common conditions, problem studies, preparing plans, implementation and monitoring and evaluation and reflection.
- **3.1.3. Capacity Building Institutional Governance of Fisherman Group:** Strengthening institutional governance is important for fishermen's institutional sustainability. Capacity building includes; Fishermen's Group Management, Leadership, The role of structures and members, Finance and internal regulation of the group.
- **3.1.4. Training of fishermen groups in the implementation of sustainable fishing practices:** This capacity building is to build insights into sustainable fisheries practices for fishermen. This is important, so that the practice carried out prioritizes the principle of sustainability. This activity will involve Trainers from sustainable fishing practice practitioners and the District Marine and Fisheries Service.
- **3.1.5. Facilitating the development of a network of fishing groups to the stakeholders:** Institutional strengthening is carried out not only internally, but seeks fishermen groups to be able to develop networks to support the sustainability of their activities. This activity will be carried out by fishermen groups accompanied by field officers, coordinating with stakeholders in the district periodically and according to thematic issues faced by the community.

Output 3.2: 100 beneficiaries in each village increase knowledge and awareness of the impacts and adaptation strategies of climate change and disaster emergencies

50. Increasing the capacity of village communities more broadly is carried out in each project village. The high risk of disasters and the level of vulnerability in the project village are the basis for increasing the capacity of the community in responding to disaster emergencies and building insights into climate change adaptation strategies. It is hoped that with the increase in capacity, communities will be much

better prepared and anticipate the impacts of climate change. The stages of achieving this are as follows:

- **3.2.1.** Participatory climate change vulnerability and risk survey: This activity serves as a baseline for vulnerable areas and climate change risks for coastal village communities. The process of implementing activities is carried out by involving the active role of the community, the government and a team of experts so as to produce outputs that are understood by the parties. The results of this survey will be presented to the village government in preparing a Development Action Plan that is responsive to climate change. In addition, the results are also submitted to the district government, as input to activities or programs that are able to strengthen the climate resilience of the project village community.
- **3.2.2.** Climate change adaptation strategies training series: This training series is important to be given to communities after knowing the level of vulnerability and risk of climate change. This training series is designed how participants are able to design their own adaptation strategies based on local conditions of the village accompanied by trainers. Target beneficiaries in this Activity, the first is the Fishermen's Group in the Village Project, including women, people with disabilities and youth. This is to strengthen their capacity in recognizing the risks and vulnerabilities of climate change impacts that occur in local villages and jointly able to build adaptive strategies to climate change, be it at the family, community or village level. The second is the village government, where it is hoped that the introduction of climate change and adaptation strategies, can be internalized into the village development planning program.
- **3.2.3.** Training of Integrated Coastal Management (ICM): This training is to build insights into coastal village communities whose areas of residence are adjacent to locations or spots that are vulnerable to disasters including the impacts of climate change and that have a history of being affected by disasters. In addition involves village governments, it is hoped that disaster management content can be internalized into village policies or programs. The objectives of this ICM are The maintenance of basic ecological processes and the preservation of the environment and resources; Wisely improving the social and economic benefits of coastal resources; Achievement of sustainable development of coastal and marine areas. The implementation of ICM can be approached on a livelihood basis that is suspected to have interrelationships at the project site, such as: fishermen, fish farmers, farmers, breeders, and traders. This activity also involves the district government, including Bappeda, Marine and Fisheries Service, Environment Agency and other related sector agencies.
- **3.2.4.** Disaster Management training series: Knowledge of disaster management is important for the community and village governments to project locations. This is expected to be able to reduce the risk of disasters that occur, including: Reducing physical, economic and psychological losses; Reducing the suffering of disaster victims; Speeding up restoration; and providing protection to refugees or communities. This activity will involve the active role of the District Disaster Management Agency (BPBD).
- **3.2.5.** Training on domestic waste treatment, shipping, agriculture and aquaculture: The waste problem is a challenge in itself, including coastal areas. Without waste management and structuring, it will further aggravate ecological vulnerability. Therefore, it is important to increase the capacity of the community and village governments in waste treatment.

Output 3.3: Formation of coastal youth cadres

51. In the current era, the increasing role of youth is a concern in any development process. In the district where the project is located, there have been various youth community movements, both in environmental and literacy issues. This project will strengthen the youth movement at the project site, through the approach of coastal village youth cadres. This is expected to be able to increase the role of youth in development, both in the form of services and village development in order to increase resilience to the effects of climate change, from the aspects of access to food security, health, economy, education and disaster. In addition, youth cadres in the village are expected to be able to enlarge the process of decriming project achievements to a wider circle. Without the facilitation of these basic services, it will increase people's vulnerability in the face of the impacts of climate change. Politically (Demographic Bonus) and the proximity of technological developments, youth have the power to be

able to influence policies. The stages of achieving this are as follows:

- **3.3.1.** Organizing Coastal Youth Cadres: The formation of coastal youth cadres is an early stage. The cadres will be strengthened in the development process in coastal villages, including issues regarding basic services such as education and health.
- **3.3.2.** Facilitating the improvement of cadres in the provision of basic services and the improvement of the village economy: This activity will strengthen the network that supports the adaptive capacity of the village community, at least reducing the vulnerability of the community from basic aspects, such as education, health, food, and markets. This activity seeks a process of ~~facilitating-facilitate~~ a coordination to the stakeholders who are able to support the adaptive capacity of village communities in dealing with the impacts of climate change, especially those related to basic services and local economic development, such as the Education, Health, Food Security in order to increase resilience to the effects of climate change. For example, the vulnerability of fishing households from the health aspect (including stunting), youth cadres will encourage a network of stakeholders to provide health services and counseling about clean and healthy living, so that the network strengthens the health capacity of fisherman households. It is hoped that cadres will act as organic facilitators in the village in supporting the sustainability of project initiatives.
- **3.3.3.** Facilitation of strengthening the Climate Change and Disaster Information Service Shelter: Strengthening this shelter becomes a service center for climate change and disaster information in the Village Project. In addition, this shelter is a center for youth creativity activities. Designed to be an information center that will be managed by youth groups connected to the village government. Disaster information including **Early Warning System**, climate change, Weather (including for fishing activities), Basic services, and creative activities will be produced at this shelter. Thus, coastal communities are always informed of new and relevant information about their activities.

Project Component 3: Strengthening The Collaboration of Coastal Communities and Stakeholders in climate change adaptation

52. Synergistic development is one of the keys to the success of development that is adaptive to climate change. Because, climate change, not only affects one sector or issue, but varies from environmental, social, food security, health and economy. So this project seeks support in the form of multi-stakeholder Collaborative Action.
53. The components of this project have outcomes, namely; the establishment of multi-stakeholder elaboration actions and policy support in response to climate change. Indonesia's commitment to take an active role in controlling the rate of rise in the earth's temperature must be transformed into a joint activity of stakeholders with a more strategic and smarter approach than usual. The Climate Village Program (ProKlim), which is designated as a national movement for community-based climate change control, is one of the government's strategic steps in grounding the global issue of climate change into joint action at the local level. ProKlim contains climate change adaptation and mitigation actions by community groups in an effort to increase climate resilience and reduce GHG emissions or contribute to containing the rise in global average temperatures below 2°C as stated in the Paris Agreement in 2015. In one of the UNFCCC's 1/CP-21 decisions relating to non-Party Stakeholders (NPS), it is stated that communities, the private sector, financial institutions, and local governments are required to increase efforts and support actions to reduce emissions and build resilience and reduce vulnerability to the negative impacts of climate change. The continuous involvement of non-party stakeholders, including local governments, the private sector, the general public is a commitment of the Government of Indonesia as stated in the NDC document submitted to the UNFCCC Secretariat in 2016. As stated in the Regulation of the Minister of Environment and Forestry No. P.39 / Menlhk-Setjen / 2015 concerning the Strategic Plan of the Ministry of Environment and Forestry for 2015-2019, the programs and activities of the Directorate General of Climate Change Control (DGT) in this period are broadly directed at: 1) Increased effectiveness of climate change adaptation and mitigation; 2) Decreased area of forest and land fires; and 3) Increasing areas that have climate change adaptation capacity. Facilitation of villages/kelurahan that implement the Climate Village Program (ProKlim) is set as one of the indicators of the achievement of the target of increasing areas that have adaptation capacity with a target of 2,000 villages/kelurahan, which at the same time can also contribute to the achievement of the target of increasing the effectiveness of adaptation and mitigation of climate change at the site level.

The activities of this program (outcome) target the registration of 3 villages as proclim villages, the establishment of 1 coastal tourism village managed by the Coastal Youth Cadre-Proklim, the establishment of a commitment to support the parties in climate change adaptation efforts accompanied by project products as a form of dissemination of climate change adaptation.

Outcome 4: Establishment of Multi-Stakeholder elaboration Action and policy support in response to the impacts of climate change.

Output 4.1: Registration of 3 villages as Proklim villages

54. The Climate Village Program (Proklim) is a national scope program managed by the Ministry of Environment and Forestry in order to increase the involvement of the community and other stakeholders to strengthen adaptation capacity to the impacts of climate change and reduce GHG emissions and provide recognition of the adaptation and mitigation efforts of climate change that have been carried out that can improve welfare at the local level in accordance with regional conditions. Registration of the village as a Climate Village (PROKLIM) will legitimize the Project Village in an effort to deal with the impacts of climate change. PROKLIM Village has a plan (Proklim Action Plan) as a form of strengthening adaptation and mitigating the impact of climate change that is occurring. This is internalized into village or village planning. PROKLIM will facilitate the support of stakeholders in the realization of climate change adaptation and mitigation efforts in project villages. The implementation of Proklim refers to the Regulation of the Minister of Environment and Forestry Number 84 of 2016 concerning the Climate Village Program, in which there are main components, requirements for proposal, assessment and categories of PROKLIM.
55. Proklim's registration process will start from assessing the risk and level of vulnerability of the village or village to the impacts of climate change. Furthermore, a Proklim Village Action Plan was prepared, which contains mitigation and adaptation efforts that can be carried out at the village or village level. The Action Plan is the basis for strengthening support from stakeholders in increasing resilience and reducing the risk of climate change impacts. This will certainly strengthen the achievement of project objectives. In addition, this project also contributes to the achievements of the Government of the Ministry of Environment and Forestry, which targets 20,000 Proklim Villages.
56. In the village project, there have been initiatives to adapt and mitigate climate change, but they are still limited. Through this project, it will increase existing initiatives in the form of Proklim Village Registration which has a Proklim action plan. The stages to achieve this are as follows:
- **4.1.1.** Facilitation of completeness of documents towards Climate Village (Proklim): This activity is carried out as the initial process of forming a Proklim village. The form of this activity is to facilitate the formation of working groups by involving village-level stakeholders, preparation of GHG vulnerability and emission profiles, development planning, capacity building and community institutions. The result of this activity is the existence of institutions authorized by the local regional leadership and agreeing on the scope of the task of the proclim group.
 - **4.1.2.** Facilitation of Proclim registration support in 3 Project villages: this activity is carried out by coordinating the institutions and work plans of proclim villages to the village and district governments to get support in the registration process
- Output 4.2:** The preparation of village action plans/policies in an effort to adapt to climate change
57. Action plans at the village level are important in ensuring the sustainability of climate village management. In addition, village support and budgeting policies are important in improving the efforts made. This will be aligned with empowerment and food security programs in villages, both through [village enterprise \(BUMDES\)](#), [Family Welfare Development group \(PKK\)](#) and other mutually agreed entities. The stages to achieve this are as follows:
- **4.2.1.** Facilitating participatory village policymaking: this activity is carried out by encouraging the active participation of the community and all parties to increase resilience to the impacts of climate change at the village level. The form of this activity is to conduct FGD aspirations and public consultations at the hamlet and village levels related to the proclim village policy facilitated by BPD in collaboration with the proclim group. The result of this activity is the existence of a draft zero village policy that will support community collective action in the implementation of village proclim.
 - **4.2.2.** Facilitation of the Climate Village (Proklim) action plan in a participatory manner: this activity is carried out referring to the data and information that has been collected at the preparation stage,

including the results of vulnerability identification, climate risks and village policies on proclim. The form of this activity is an FGD re-presentation of the results of the study to remind residents / communities of the types and levels of existing threats, vulnerabilities and capacities owned so that the community can discuss and formulate goals and objectives to be achieved in dealing with the threat of climate change. The result of this activity is to develop a work plan that can support the achievement of targeted results.

Output 4.3: 1 ~~Coastal tourism villages increase in management~~Managed coastal environmental services through coastal tourism villages

58. Galeso Village has a tourist attraction, namely Mampie Beach. However, nowadays, tourist attractions are experiencing a threat to the impacts of climate change. This project encourages the improvement of village tourism management that is responsive to the impacts of climate change. Encouraging coastal ecotourism that utilizes ~~the sustainable~~ management of environmental services. In the target village of ecotourism, there are Environmental Services in the form of Mangrove Areas and Coral Reefs. The Responsible Tourism ecotourism approach will encourage efforts to increase the capacity of existing Environmental Services, thereby strengthening coastal areas from the impacts of climate change, such as coastal floods and abrasion. Every tourist will be educated regarding the importance of coastal ecosystem resilience in the face of the impacts of climate change. The tourists will be guided to contribute to the resilience of coastal ecosystems, such as mangrove planting by tourists, reduction of coastal waste and others. Ecotourism is a forum for publications that build awareness of the importance of environmental sustainability. The stages to achieve this are as follows:

- **4.3.1.** Comparative Study of Proklim Village Management has the potential for ecotourism: this activity is important to exchange information and knowledge about the tourism-based proclim management scheme that will be developed by the proclim group in the pilot village of Projoec. The form of this activity is FGD with tour management groups and visiting tourist sites that have been developed. The result of this activity is the increasing knowledge of proclim groups about tourism development that can contribute to the improvement of the ecosystem and the increase in the economic income of communities and villages.
- **4.3.2.** Modeling Study on the improvement of coastal village tourism: this activity will be carried out to assess the feasibility of tourism which will be encouraged on the ProKlim tourism scheme by the group. The study will be carried out by assessing the results of mapping and village policies by experts in tourism planning by involving proclim groups, village governments and related agencies. The result of this activity is that there is 1 village that agrees to become a Proklim village that is integrated in village planning, zoning plans for coastal areas and small island islands of West Sulawesi province and local government programs through related agencies.
- **4.3.3.** Coastal Village Tourism Governance Workshop: this activity will be carried out to disseminate the results of the assessment of tourism villages to stakeholders at the district, provincial and private sector levels. The form of this activity is the delivery of opportunities for support for cooperation between parties in the development of Proklim-based tourism villages at the pilot project location. The large design (Master Plan) of Coastal Ecotourism resulting from the 4.3.2 activity will be elaborated with the stakeholders in this activity. Interested parties can contribute to the development of coastal ecotourism. Identify the support of the parties as follows: 1) The District Tourism Office has a tourism development program; 2) Community and Village Empowerment Office, prioritizing the use of village budgets for tourism development; 3) The Ministry of Environment and Forestry, specifically for Proklim affairs, has a program that supports Proklim villages, where coastal ecotourism is located in a village registered with Proklim, and with the management of environmental services (Mangroves) for coastal resilience to the impacts of climate change; 4) Marine and Fisheries Service, as a service that takes care of coastal areas; 5) University, can make this coastal ecotourism area an area of research and community service.
- **4.3.4.** Facilitation of support for the improvement of coastal village tourism: this activity is carried out to support tourism productivity that has been managed and developed by the proclim group. The form of this activity is to increase the economic value of tourism through tourism promotion activities, strengthening institutions and the capacity of tourism managers.

Output 4.4: The establishment of a commitment to the support of stakeholders in climate change

adaptation efforts

59. Synergistic development is one of the keys to the success of development that is adaptive to climate change. This project seeks the role and commitment of stakeholders in supporting adaptation efforts carried out in project villages and even becomes duplication to other villages.

- **4.4.1.** Project Kick off Workshop: conducted to stakeholders to get policy support in project implementation. This activity is carried out to introduce the Adaptation Fund program to parties at the village, district, provincial and private sector levels who are interested in the target location of the program.
- **4.4.2.** Multi-stakeholder Hearings and Coordination: this activity is carried out to communicate program objectives and activity collaboration opportunities to stakeholders in supporting climate change activities at the pilot project site. The result of this activity is that key actors at the village, district and provincial levels can work together in supporting the collective action of the climate change movement in west Sulawesi province.
- **4.4.3.** Climate Change Action Collaboration Workshop: this activity is carried out to obtain support and intervention of government and private sector level multi-stakeholder programs in supporting climate change action. The result of this activity is the existence of a memorandum of understanding on cooperation agreements to support climate change adaptation actions in the pilot project village of West Sulawesi
- **4.4.4.** "Voices from the Coast" Festival: this activity is carried out involving all parties including, youth groups, CSOs, universities, women's organizations, children's forums, village communities, district governments, village governments, provincial governments and the private sector in campaigning for climate change action in the west. This form of activity is in the form of climate change adaptation action events. As a result of the event activities, the parties are actively involved in the climate change adaptation movement in the west

Output 4.5: Managed project knowledge products as a form of dissemination of climate change adaptation

60. The management of knowledge products is important for disseminating project ideas, as well as strategies for adapting to the impacts of climate change. This activity will encourage the optimization of the role and utilization of information technology developments.

- **4.5.1.** Documentary Video Making: this activity is carried out by the SCF-Knowledge management TEAM by documenting the course of the program and the impact of change. The results of this documentary video will be utilized by national and international stakeholders as a learning medium for collaborative climate change adaptation actions at the project site
- **4.5.2.** Facilitation of knowledge products such as books, posters, leaflets: this activity is important to record the process of program implementation, photograph changes in changes and learn program implementation that can be used by stakeholders as an effort to expand climate change action in Indonesia
- **4.5.4.** Facilitation of the "Voice from the Coast" campaign channel: this activity is carried out by the Knowledge Management TEAM by utilizing information media in campaigning for climate change adaptation actions by involving academics, practitioners, local champion, and project implementation teams. The result of this activity is to increase public participation and millennials care about climate change.
- **4.5.5.** Environmental Literacy Class: Environmental literacy is very important for every millennial generation to build awareness of the environment and be involved in overcoming environmental problems. This activity was carried out using the road show method of the Climate Change Adaptation FGD at the university and high school levels in West Sulawesi inviting students and youth to be involved in climate change adaptation actions. The result of this activity is the increasing critical awareness of students and youth in climate change adaptation actions that are documented through writings, campaign actions and social activities for climate care.
- **4.5.6.** Locally designed info campaign: The activity encourages the youth community and cadres of coastal village youth to design a media campaign accompanied by the Knowledge Management Team of this Project. This process takes place as a form of transfer of knowledge and skills.

B. Project / programme provides economic, social and environmental benefits

61. This project will provide economic, social and environmental benefits for coastal communities in targeted locations and will contribute to improving gender equality, women's empowerment, involvement of youth groups in meeting the needs of targeted adaptation for women and men. All activities to be implemented apply the principle of participatory, transparent and inclusive so that all parties receiving benefits can be actively involved in achieving project objectives.
62. **Economic benefits:** This project will provide economic benefits for fishing communities affected by climate change. Fishing communities whose incomes are affected by climate change can be strengthened through increasing the diversity of livelihood sources and incomes of vulnerable groups. Activities that can support through small-scale businesses for women's groups, especially the wives of fishermen who have low incomes. The contribution of the local government is very important to promote the prodak of fishermen, providing facilitation of completeness of production advice for women's groups.
63. **Social Benefits:** This project will increase the resilience of coastal communities in the face of climate change and campaign for climate change adaptation action through capacity building for all stakeholders such as local governments, village communities, women's groups, fishermen's groups, disability groups and youth groups.
64. **Environmental Benefits:** This project will improve marine ecosystems, namely the growth of coral reefs properly. Coastal communities will be closer to fishing activities. In addition, interventions in the development of coastal ecotourism can have a positive impact on the environment because the community will maintain pollution to the sea, cleanliness of the beach and get economic value through the development of coastal tourism to contribute to direct beneficiaries.

4-65. **Vulnerable groups and women beneficiaries** are the focus of this project. The process of identifying and assessing vulnerable groups and women is carried out through the in-depth Participatory Poverty Assessment and Monitoring (PPAM) method. This becomes the basis for strengthening vulnerable groups and women so that they are right on target. On the other hand, strengthening women and vulnerable groups, is not only focused on outcome 2, but on every activity in other outcomes, by encouraging the involvement of at least 30% of women and vulnerable groups. [For example, in village community capacity building training activities, it is targeted that at least 30% of women and vulnerable groups will participate. Another example, at village level meetings, will ensure the involvement of women and vulnerable groups 30%. Participation of women and vulnerable groups during project implementation](#)

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Table 6 Project Beneficiaries

| Output | Direct Beneficiaries | Indirect Beneficiaries | Economic | Social | Environment |
|--|---------------------------------|--|--|---|---|
| Output 1.1. There is a map of the catchment area that adapts to migration patterns and fish seasons | 450 fishermen in 9 villages | 2,095 fisherman in 3 sub district | Closer sources of people's livelihoods and reduced costs of going to sea | Participation rates and knowledge-based processes in the face of climate change | Helping to maintain marine ecosystems based on planning |
| Output 1.2. Fisherman are able to identify and develop new fishing spots through fish apartments The existence of a new spot for the catchment area through the fish apartment at the project site | 450-450 fishermen in 9 villages | 2,095 fisherman in 3 sub district | Closer sources of people's livelihoods and reduced costs of going to sea | Fishermen can jointly catch fish in new areas | Safeguarding coral reefs |
| Output 2.1. There is an increase in the encroachment of Floating Nets managed by vulnerable groups | 75 managerspeople | 2,095 fisherman in 3 sub district, 33,554 peoples in 3 sub district, Fishing business actors | Income for vulnerable groups | Managed as a group, the beneficiaries are vulnerable groups, women | Application of the Principles of Good Aquaculture Practices |
| Output 2.2. Managed Coastal Food House System by Women's Groups which become food centers and processing of production products | 75 managerspeople | 2,095 fisherman in 3 sub district, 33,554 peoples in 3 sub district, Government (contribute to | Increasing the value of fishery products (end products) and food sources | Managed in groups and improves community interaction (social) | Waste Treatment Management |

| | | | | | |
|--|--|--|---|--|---|
| | | improving food security | | | |
| Output 3.1. 9 group fishermen increase capacity in terms of institutional and sustainable coastal ecosystem management | 450 people | 2,095 fisherman in 3 sub district, 3,554 peoples in 3 sub district, Government | There is a capacity for access and community support in managing natural resources | The existence of social readiness of the community to face climate change | The development of integrated and sustainable coastal ecosystems |
| Output 3.2. 100 beneficiaries in each village increase knowledge and awareness of the impacts and adaptation strategies of climate change and disaster emergencies | 900 people (man and women) | 33,554 peoples in 3 sub district, Government | Reduced potential household economic losses due to climate change disasters | Building capacity and collective consciousness in the face of the impacts of climate change (Socio-Psychological) | Protection and strengthening of coastal ecosystems against the impacts of climate change through collective awareness |
| Output 3.3. Formation of coastal youth cadres | 3 groups (90 youth people, man and women) | 33,554 peoples in 3 sub district, Government | Access to technology makes it easier to market fishery products | Youth generations are involved in campaigning for climate change adaptation | Youth involved in protecting the environment and environmentally conscious campaigns |
| Output 4.1. Registration of 3 villages as Proklim villages | 13,2623 village government (45 people)-people | 13,262 people in 3 village, Government | There is program support and budgeting at the national, provincial, district and village levels | Strengthening community institutions in implementing local actions on climate change adaptation and mitigation at the site level | Decreased degradation of the coastal environment at the site and increased ecosystem management |
| Output 4.2. The preparation of village action plans/policies in an effort to adapt to climate change | 3 village government (45 people);13,262-people | 13,262 people in 3 village, Government | Cross-sectoral government budgeting support in dealing with the impacts of climate change | The creation of policy directions for climate change adaptation and mitigation actions through Proklim as a bottom-up approach in climate resilience programs at the local level | Decreased degradation of the coastal environment at the site of the site |
| Output 4.3. Managed coastal environmental services through coastal tourism villages Coastal-tourism villages- | 3,222 p45 people as a tourist actor people | 3,222 people in village tourism, Government, Tourist visitors | The creation of new jobs and the increase in people's income through environmental products and services | Changes in people's attitudes and behaviors about coastal environmental awareness | Improving the management of coastal environmental services (mangroves and corals) that are responsive to climate change |
| Output 4.4. The establishment of a commitment to the support of stakeholders in climate change adaptation efforts | 470,450 fishermen 221-people | 170,221 people | Increasing program synergy across regional sectors so that they are able to adjust to the form of budgeting | There is community certainty in managing coastal resources at the site level | The preservation of coastal and marine ecological functions |
| Output 4.5. Managed project knowledge products as a form of dissemination of climate change adaptation | 470,90 youth people as contributor 221-people | 170,221 people | The emergence of the angst of the landed community in the face of climate change | The emergence of a knowledge product that is disseminated during the project run until the end of the project | The preservation of coastal and marine ecological functions |

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C. Analysis of the cost-effectiveness of the proposed project/programme.

66. [This project is much more cost-effective than other projects such as insurance for fishermen because the main objective of this project is to build capacity, empower fishing communities, and strengthen their food and livelihood systems so that fishing households can adapt to climate change. This means that this project has a long-term positive effect compared to projects such as fishermen's insurance. Fishermen's insurance projects require fishermen to spend money to pay premiums. Even though the amount of the premium in nominal terms may not be large, for poor fishing households allocating income to pay the premium is quite burdensome. In addition, compared to introducing location-aware mobile devices for fishing collaboration to fishermen, this project is much more efficient, even for similar activities, this project also has similar outcomes to the introduction of mobile devices to identify fishing areas. The outcome is in the first project component, namely 1.1. There is a map of the catchment area that adapts to migration patterns and fish seasons and 1.2. Fisherman are able to identify and develop new fishing spots through fish apartments. In fact, it doesn't only help fishermen to find other fishing areas, these outcomes actually make fishermen several new fishing areas.](#)

67. [In this project there are specific outcomes aimed at increasing the capacity of fishermen to diversify](#)

their sources of income, namely Outcome 2: Increased the diversity of livelihoods and income sources in vulnerable groups at the project site. To diversify the livelihood sources of fishermen households, the project will involve women's groups who will process the catch into derivative products that can be sold and have a higher added value. The approach used is Collective Business Management or Socioentrepreneurship. This approach is very relevant to the main objective of this project, which is to empower the community, especially the vulnerable groups in the project location. They manage the business in groups by utilizing social capital that is already strong among them. That is why the Socio-entrepreneurship approach is considered the best compared to other approaches, for example providing individual venture capital assistance.

68. In the table below, the ratio of budget to output and beneficiaries is illustrated. The ratio of budget and output is greatest, namely in outcome 4 of 35,964.20 per output. Cost efficiency will be more clearly seen if the average budget per output is divided by the total beneficiaries of each output.

2. In outcome 1, the total cost needs reached US\$ 117,572. In outcome 1, there are two outputs to be achieved, so that if the total budget is divided equally, then each output gets a cost allocation of US\$ 58,786. At outputs 1.1 and 1.2, the total direct beneficiaries of the program reached 450 and 451 fishermen in nine target villages, respectively. If the average budget for each output is divided by the total beneficiaries, then the budget ratio per beneficiary is only US\$ 130.64 and 130.35. The map of the fishing area produced at this output will be used by 450 fishermen in nine villages. To create the map, there are several activities that involve the community and experts. Therefore, it can be concluded that the costs used are efficient and effective.

3. In outcome 2, the cost allocation reached US\$ 187,941. The cost allocation in outcome 2 is relatively greater than outcome 1 because the output to be achieved is related to the construction of infrastructure and enters the empowerment stage. If the budget is divided by two outputs, then each output gets an average cost allocation of US\$ 93,970.50. In output 1 and output 2, the direct beneficiaries of each reach 75 groups or managers who will take care of the floating cages and the Coastal Food House. These 75 groups or managers are vulnerable groups, including women in nine villages. If the average budget per output is divided by the total beneficiaries, then the ratio of budget per beneficiary, both excluded 1 and output 2, reaches US\$1,252.94 each.

4. In outcome 3, the total budget allocation reached US\$ 325,800, greater than outcomes 1 and 2. In this output, there are three outputs to be achieved with a different number of beneficiaries per output. At output 1, the total direct beneficiaries reached 450 people, while for outputs 2 and 3, each was aimed at 900 beneficiaries in nine villages. If the total budget in outcome 3 is divided into 3 for three outputs, then each output gets a cost allocation of US\$108,600. Because the first output of the number of beneficiaries is 450 people, the average cost allocation per beneficiary reaches US\$ 241.33, while in outputs 2 and 3 whose beneficiaries are 900 people, each beneficiary averages a cost allocation of US\$ 120.67. This figure gives an idea that the costs used are pursued as efficiently as possible, but still pay attention to the effectiveness of achieving targets.

5. Output 4 requires a cost allocation of US\$ 170,821, greater than the previous three outcomes. However, because outcome 4 has five outputs, if divided by the budget divided equally, the budget allocation per output is not so large, only US\$ 35,964.20. Cost efficiency will be more clearly seen if the average budget per output is subdivided by the total beneficiaries [there is a maing each output. At outputs 4.1 and 4.1, the total direct beneficiaries reached US\$13,262, so the average beneficiary cost only US\$2.71. For output 4.3, the number of beneficiaries reached 3,222 people, so if divided equally, each beneficiary only cost US\$11.16. Compared with these three outputs, outputs 4.4 and 4.5 have a larger number of beneficiaries of 170,221 people, so the budget spent on each beneficiary is much lower, only US\$0.21.

Table 7. Rasio Budget, output and beneficiaries

| Output | Beneficiaries | Budget Per Output (US\$) | Budget rasio per beneficiaries (US\$) |
|--|-----------------------------|--------------------------|---------------------------------------|
| Output 1.1. There is a map of the catchment area that adapts to migration patterns and fish seasons | 450 fishermen in 9 villages | 58,786 | 130.64 |
| Output 1.2. Fisherman are able to identify and develop new fishing spots through fish apartments. The existence of a new spot for the catchment area through the fish apartment at the project site. | 450 fishermen in 9 villages | 58,786 | 130.35 |

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|--|----------------|-----------|----------|
| Output 2.1. There is an increase in the encroachment of Floating Nets managed by vulnerable groups | 75 managers | 93,970.50 | 1,252.94 |
| Output 2.2. Managed Coastal Food House System by Women's Groups which become food centers and processing of production products | 75 managers | 93,970.50 | 1,252.94 |
| Output 3.1. 9 group fishermen increase capacity in terms of institutional and sustainable coastal ecosystem management | 450 people | 108,600 | 241.33 |
| Output 3.2. 100 communities in each village increase knowledge and awareness of the impacts and adaptation strategies of climate change and disaster emergencies | 900 people | 108,600 | 120.67 |
| Output 3.3. Formation of coastal youth cadres | 900 people | 108,600 | 120.67 |
| Output 4.1. Registration of 3 villages as Proklim villages | 13,262 people | 35,964.20 | 2.71 |
| Output 4.2. The preparation of village action plans/policies in an effort to adapt to climate change | 13,262 people | 35,964.20 | 2.71 |
| Output 4.3. Managed coastal environmental services through coastal tourism villages Coastal tourism villages increase in management | 3,222 people | 35,964.20 | 11.16 |
| Output 4.4. The establishment of a commitment to the support of stakeholders in climate change adaptation efforts | 170,221 people | 35,964.20 | 0.21 |
| Output 4.5. Managed project knowledge products as a form of dissemination of climate change adaptation | 170,221 people | 35,964.20 | 0.21 |

6-69. BNPB released data on the calculation of estimated losses arising from disasters due to climate change. Released on the inarisk.bnpb.go.id page, Mamuju, Polewali Mandar and Majene Regencies each suffered losses due to natural disasters. In Majene Regency, [National Board for Disaster Management \(BNPB\)](#) calculated that there was a loss of Rp. 6,142,697,000 as a result of the disaster, in Mamuju Regency Rp. 13,294,307,000, and in Polewali Mandar Regency Rp. 17,032,804,000. This loss is the total of physical losses (damaged houses, damaged public facilities, etc.) and economic losses (loss of economic value). Total losses in these three districts reached Rp. 36,469,808,000. The value of economic losses includes the loss of economic value for each potential business sector in the three regions, including the fisheries sector. This figure is a calculation for 2004-2015 or an accumulation of 11 years which is the result of a disaster risk assessment compiled by BNPB.

7-70. If there are no efforts or interventions to deal with or adapt to climate change, then the potential for losses due to disasters in the three regions will be even greater in the future. Bappenas has already made projections of economic losses due to disasters up to 2045. According to Bappenas' projections, nationally, Indonesia will experience economic losses in 2045 of Rp. 562,831,000,000,000. This figure has increased by 30.42% compared to the 2015 calculation. Bappenas' assumption in projecting an increase in losses due to disasters is due to projected population growth which automatically increases infrastructure development and production land, in addition to the concentration of population in urban areas with high levels of development. Infrastructure increases and the assumption that the carrying capacity of the environment as a source of life also weakens.

8-71. Bappenas projections can be used to project economic losses in the three program target districts. Bappenas projects that there will be an increase in economic losses of 30.42% from 2015 to 2045 nationally. If the growth rate is used in the three districts where the program is located, it is projected that if there are no current efforts to deal with or intervene in climate change, then the total economic loss in these three districts in 2045 or the next 23 years will be Rp. 47,563,923,594 or an increase of Rp. 11,094,115,594.

9-72. This project aims to build community resilience to the impacts of climate change. The budget needed in this program is Rp. 15,079,675,614 or equivalent to US\$ 970,503 (assuming an exchange rate of Rp. 15,538), or specifically for the program budget (total program cost) of Rp. 13,904,847,434 or the equivalent of US\$ 894,893. With this budget, it is hoped that the three objectives of this program can be achieved, namely first, Strengthening food security and livelihoods for coastal communities in the face of climate change, second, Capacity building of coastal community groups in climate change adaptation strategies, and third, Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation actions. If this goal is achieved, economic losses due to climate change can be minimized.

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40-73. Using the projected figures for economic losses in 2045, the investment is Rp. 13,904,847,434 or the equivalent of US\$ 894,893 (assuming an exchange rate of Rp. 15,538) is expected to reduce the total economic loss previously estimated in the three districts, namely Rp. 47,563,923,594 or the equivalent of US\$ 3,061,136 (assuming an exchange rate of Rp. 15,358) in 2045 or the next 23 years. Losses that can be minimized apart from physical and economic losses, are also losses that must be borne by fishermen due to loss of catchment areas due to disasters.

41-74. The duration of the program only lasts for three years, so it is important to ensure the sustainability of the program. One of the important variables that must be available to ensure the program continues is budget sustainability. Although the program has been completed in three years, this program will not stop because there are budget allocations from provincial, district, and village governments. That's why this program involves many stakeholders, because we envision the support of stakeholders not only at the time of the program, but also when the duration of this program ends. One way is the budget allocation from the provincial, district, and village governments to continue or maintain what this program has provided.

D. Project / programme with national or sub-national sustainable development strategies

42-75. "Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security in Response to Climate Change through Multi-Stakeholder Elaboration Action in West Sulawesi Province.", overall is closely related to policy initiatives- development responsive to climate change at the global, national to sectoral policies in each different agency. This project and its translation to the level of technical activity manifests a form of support for the Global Sustainable Development initiative, which aims to create a pattern of development with a socio-ecological, responsible and inclusive perspective. The sustainable development agenda was created to address the demands of world leadership in tackling poverty, inequality, and climate change in the form of concrete action.

43-76. Of the 17 SDGs, the three components arranged in the project are particularly relevant to the goals of the SDGs. First Component: Strengthening Food Security and Livelihoods of coastal communities in the face of climate change contains implementation actions that intersect with the 2nd goal of the SDGs, namely *Zero Hunger*, the 5th goal is Gender Equality, goal 12, *Responsible Consumption and Production*, goal 14, namely *Life Below Water* where the sustainable protection of the ocean and marine resources is a priority. The second component of the project: Capacity Building of Coastal Community Groups in the Climate Change Adaptation Strategy, targeting the 13th goal and the 16th goal, namely Climate Action, as well as the development of Peace, Justice and Resilient Institutions.

44-77. The third component: strengthening the collaboration of coastal communities and parties in climate change adaptation, is also part of the support for global initiatives targeting goals 13 and 16 of the SDGs, and is particularly relevant to the 17th goal of the SDGs, related to partnerships at various levels that can be reached.

45-78. Global climate change responsive initiatives have certainly been translated into the national policies of the Government of Indonesia at the national level to sectoral policies. As an integral part of Indonesia's contributive efforts to respond to the climate change agenda, Indonesia is committed to implementing the Nationally Determined Contribution (NDC) to the fullest by 2025, in accordance with the Paris 2015 agreement. In the forestry sector, for example, Indonesia set the Indonesia FOLU Net Sink. In terms of fiscal aspects, it has launched Indonesia's CGF's Country Programme. The Programme Document is a key reference for program initiators to align each project or programme proposal with national priorities in order to facilitate their opportunities to access climate change program funding.

46-79. Based on formal legal aspects, the Government of Indonesia has established *Presidential Regulation* Number 61 of 2011 concerning *The National Action Plan For Green House Gas Emissions Reduction (RAN-GRK)*. This regulation is the legal basis for the action plan. Which is technically stated in the RAN-GRK and RAD-GRK Implementation Guidelines documents, especially in supporting the marine and fisheries sector and Proklam.

47-80. Judging from its relevance, this Project will make a major contribution in two key Initiatives at

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the national level. *First*, the Climate Village Program (Proklim). A national program managed by the Ministry of Environment and Forestry in order to increase the involvement of communities and other stakeholders to strengthen adaptation capacity to the impacts of climate change and reduce Greenhouse Gas emissions and provide recognition of the adaptation and mitigation efforts of climate change that have been carried out that can improve welfare at the local level in accordance with regional conditions. The project's contribution to the proclim is explicitly reflected in the elaboration of the 3rd component, Output 4.1. dri proposal, which targets 3 out of 9 villages where the projet development is a pilot pilot of climate villages. More specifically, under the coordination of the Directorate of Environment, Indonesia also launched the LCDI-Low *Carbon Development Indonesia program*.

48-81. The second policy is the National Action Plan-Climate Change Adaptation (RAN-API). RAN-API as a comprehensive national climate adaptation program design has integrated elements that must be present in every development program, namely gender responsive guidelines prepared by the Ministry of Women's Empowerment and Child Protection. The objective of this project is to design step by step action that is contributive to the 4 fundamental frameworks of the RAN-API, including Technology, Infrastructure, Governance and Capacity Building. Among the four frameworks, the picture of project activities touches on all aspects, but there is a deeper emphasis on aspects of Governance and Capacity Building. A description of the relationship between the project components and the objectives of the SDGs and their relevance in supporting pre-existing policies/initiatives, is illustrated in the following figure:



Figure 9 Relevance of Project Components to Central Government Policies

E. Project / programme meets relevant national technical standards

Project activities are guided by:

1. Law Of The Republic Of Indonesia Number 11 Of 2019 on National System of Science and Technology;
2. Law Of The Republic Of Indonesia Number 7 Of 2016 on Empowering Fishermen, Fish Cultivators, and Salt Farmers;
3. Law Of The Republic Of Indonesia Number 1 Of 2014 on Amendment To Law Number 27 OF 2007 ON Management of Coastal Zone and Islands;
4. Law Of The Republic Of Indonesia Number 20 Of 2014 on Standardization and Conformity Assessment;
5. Law Of The Republic Of Indonesia Number 23 Of 2014 on Local government;
6. Law Of The Republic Of Indonesia Number 32 Of 2014 On Marine Affairs;
7. Law Of The Republic Of Indonesia Number 45 Of 2009 On Amendment To Law Number 31 Of 2004 On Fisheries;
8. Regulation Of the President Of The Republic Of Indonesia Number 83 of 2020 on Makassar Strait Interregional Zoning Plan;
9. Regulation Of (The) Minister of Ministry of Environment and Forestry OF THE REPUBLIC OF INDONESIA number P.33/Menlhk/Setjen/Kum.1/3/of 2016 on Guidelines for preparing climate change adaptation actions
10. Regulation Of The Province Of West Sulawesi Number 6 Of 2017 on Zoning Plan for Coastal Areas and Small Islands of West Sulawesi Province 2017 - 2037.
11. Decree of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number 80/Kepmen-Kp/2016 concerning Fishery Management Plans for the State Fisheries Management Area of the Republic of Indonesia.
12. Regulation Of (The) Minister Of Ministry Of Marine And Fisheries Affairs Of The Republic Of

Indonesia Number 18 Of 2021 on Placement of Fishing Equipment and Fishing Aids in the Fisheries Management Area of the Republic of Indonesia and the High Seas and Arrangement of Fishing Andon.

13. Regulation Of (The) Minister Of Ministry Of Marine And Fisheries Affairs Of The Republic Of Indonesia Number 27 Of 2021 on Fishing and/or Fish Cultivation in the Fisheries Management Area of the Republic of Indonesia for Non-Commercial Purposes.
14. Regulation Of (The) Minister Of Ministry Of Marine And Fisheries Affairs Of The Republic Of Indonesia Number 28 Of 2021 on Implementation of Marine Spatial Planning.
15. Regulation Of (The) Minister Of Ministry Of Marine And Fisheries Affairs Of The Republic Of Indonesia Number 59 Of 2021 on Increasing the Added Value of Fishery Products.
16. Decree of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number 19 of 2022 concerning Estimation of Potential Fish Resources, Amount of Permissible Fish Catch, and Level of Utilization of Fish Resources in Fisheries Management Areas of the Republic of Indonesia.

49-82. In output 1.2, the fish apartment has met the standards according to the guideline point 4, the material used is Polypropylene so that it does not have the potential to produce hazardous chemicals for fish. The fish apartment is a product of the Great Fishing Center, the institution is an institution under the Ministry of Maritime Affairs and Fisheries. The installation of fish apartments refers to guidelines for points 2, 3, 6, 7, 8 and 9, so that they will not interfere with fish immigration areas, do not damage the marine ecosystem, apartments can be used as spawning ground, nursery ground, feeding ground, and fishing ground areas. Installation will be adjusted to the designation of the area and will be intensely consulted with the local government, to ensure it does not violate applicable regulations. In addition, the management aspect refers to the regional ~~types~~ authorities regulated by guideline 5. Furthermore, in study activities, such as migration patterns, distribution and seasonal calendars, survey activities, workshops, and training guided by point 1 as well as various instruments of scientific research principles, and regulations of the Minister, or the director general under a ministry agency as a derivative of these guidelines. Fish apartments, on the aspect of materials and placement criteria have met the standards in accordance with 4. Law Number 20 of 2014 concerning Standardization and Conformity Assessment, so that these criteria have received SNI 8192:2015 and SNI 9016:2021. Meanwhile, the aspect of the suitability of the placement space and space allocation has been explained in the proposal by referring to laws, presidential regulations, Ministerial regulations and regional regulations.

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

~~20. Currently, there are no similar projects in the project location that will be developed in this proposal. CEF project activities are carried out outside the target location. The CEF ISLME 5 project was implemented in Indonesia and Timor Leste. In Indonesia, it is carried out in WPP 713 (Central Java and East Kalimantan), WPP 573 (West Nusa Tenggara) and WPP 714 (East Nusa Tenggara). But, this will be a learning to be able to apply at the project site. The implementation of this project targets certain types of fish, such as: Snapper, Crouper, Mangrove Crab, Crab and Lobster. The project aims to analyze the status of sustainability using the EAFM approach.~~

83. Currently, there are no similar projects in the project location that will be developed in this proposal. However, the institutions that are members of the Consortium "Garis Biru" as program implementing partners have made many efforts to empower communities, research, strengthen policies and improve the economy of coastal communities in the fisheries and fisheries sector, both in the province of West Sulawesi and in other locations. Several projects that have been carried out in other locations and will be duplicated in this part of the project, by taking lessons from good practices that are in accordance with the context of the current project location. Project lessons from consortium members include;

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Table 8 Lessons that can be adopted from other projects

| No | Project | Focus | Location | To Be Adopt |
|----|--|---|---|--|
| 1 | Project ISLME - GEF (Enabling transboundary cooperation for Sustainable management of the Indonesian Seas) | To facilitate the implementation of fisheries management through an ecosystem and coastal approach in the ISLME area to ensure resource utilization through Trans-Boundary Diagnostic Analysis (TDA) and the development of a Strategic Action Program (SAP). The Implementation of this project targets certain types of fish, such as: Snaper, Grouper, Mangrove Crab, Crab and Lobster | WPP 713 (Central Java and East Kalimantan), WPP 573 (West Nusa Tenggara) and WPP 714 (East Nusa Tenggara) | EAFM Approach (Ecosystem approach to fisheries Management) |
| 2 | Governance The use of gill nets (Samba) as an effort to reduce threats to the Coral Reef Ecosystem in the Pangkep KBA-Sabalana Islands by the Sulawesi Community Foundation - Burung Indonesia (2021-2022) | Carrying out the Management of the Utilization of Gill Nets (Samba) and increasing the economic value of fishery products as an Effort to Reduce Threats to the Coral Reef Ecosystem in Pangkep KBA-Sabalana Islands | Sabalana Island, Pangkajene Islands Regency | The Mapping Fishing ground approach in the project will be used and its application developed in this project. In addition, this project succeeded in encouraging the diversification of fishermen's household income sources, through the development of women's group businesses. |
| 3 | Program to increase catchment area by increasing coral reef habitat by the SKK Migas PT Pertamina Hulu Mahakam (2020) | This project encourages an increase in the fishing area of village fishermen through improving coral reef habitat in the form of fish apartments installed in survey locations. This activity was carried out in a participatory manner from planning, installation to monitoring. | Tani Baru Village, District Anggana, Kutai Kartanegara regency | Increasing community capacity in identifying areas and introducing fish apartments and developing floating net cages as a response to the impacts of climate change |
| 4 | Program Peduli - Social Inclusion by Sulawesi Community Foundation support from Kemitraan (2014-2020) | This project encourages social inclusion of marginalized communities in development. The approach used is through the Participatory Poverty Assessment and Monitoring (PPAM) and the involvement of village youth cadres in encouraging the improvement of basic rights services, business development and community socio-culture. | Kahayya and Bulu-bulu Village, South Sulawesi Province | The involvement of vulnerable groups will use PPAM tools, so that beneficiaries of vulnerable groups are right on target and agreed by the parties in a participatory manner. In addition, encouraging an increase in the role of coastal youth cadres in facilitating and disseminating village community adaptive efforts to climate change. |

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- ~~GEF project activities are carried out outside the target location. The GEF ISLME 5 project was implemented in Indonesia and Timor Leste. In Indonesia, it is carried out in WPP 713 (Central Java and East Kalimantan), WPP 573 (West Nusa Tenggara) and WPP 714 (East Nusa Tenggara). But, this will be a learning to be able to apply at the project site. The Implementation of this project targets certain types of fish, such as: Snaper, Grouper, Mangrove Crab, Crab and Lobster. The project aims to analyze the status of sustainability using the EAFM approach. The Project for Observing Coastal Ecosystems on Sabalan Island, Pangkajene Islands Regency by the Sulawesi Community Foundation for 2021-2022 through the support of the Indonesian Bird. The Mapping Fishing ground approach in the project will be used and its application developed in this project. In addition, this project succeeded in encouraging the diversification of fishermen's household income sources, through the development of women's group businesses.~~
- ~~Project Program for Increasing fishing areas through increasing coral reef habitat in Tani Baru Village, Kutai Kartanegara Regency by YEKHALI in 2020 through the support of SKK Migas PT Pertamina Hulu Mahakam. This project encourages an increase in the fishing area of village fishermen through improving coral reef habitat in the form of fish apartments. This activity was carried out in a participatory manner from planning, installation to monitoring. Installation of fish apartments adapted to coastal conditions, so that the impact of climate change can be minimized.~~
- ~~The PEDULI Social Inclusion Project in Bulukumba and Barru Regencies, South Sulawesi by the Sulawesi Community Foundation in 2014-2020 through KEMITRAAN support. This project encourages social inclusion of marginalized communities in development. The approach used is through the Participatory Poverty Assessment and Monitoring (PPAM) and the involvement of village youth cadres in encouraging the improvement of basic services, business development and~~

community socio-culture. It is important that the MISP tools learned are applied in this project, to ensure that beneficiaries of vulnerable groups and women are right on target and agreed upon by the parties in a participatory manner. Furthermore, the strategy to increase the role of coastal youth in facilitating and disseminating community adaptive efforts to the impacts of climate change.

24-84. The diverse experience and expertise of the consortium members is an advantage in implementing this project. Sulawesi Community Foundation as the lead consortium will focus on multi-stakeholder facilitation, collaborative, inclusive and participatory development. [Agency of Research and Community service \(LPPM\)](#) University of West Sulawesi, focuses on research collaboration and community service. YEKHALI and Mattirotasi [Foundation](#), focus on coastal economic development, including assisting fishermen and technical capacity in dealing with climate change. Meanwhile, Sahabat Pulau Indonesia and Sahabat Indonesia Institute as local community partners that focus on community organizing.

G. Knowledge Management.

25-85. The knowledge management plan is carried out with two systems of applicative approaches that will be applied during the project, namely the skills and expertise management system and the practical community system. Both of these systems can be supported through the following activities:

- 1) The project has been designed to take into account the best practices that already exist, either through capacity building, workshops/trainings or study tours by involving people who have experience in it. Especially in maintaining sustainability and encouraging more people to adapt to climate change, for example in meeting the needs for food, water, natural resources and so on without damaging the existing ecosystem.

- 2) In the project, assistance personnel have also been included. Mentoring at the village level is one of the strategies, as the forefront of the field/community. In his daily life, the companion will not only accompany the community / community directly but will also make efforts to document and package: ideas, experiences, good practices, travel and development of projects at the community level for the benefit of the parties. It will also be provided with knowledge and skills related to documentation and practical knowledge based on digital.

- 3) In the body of the project structure is also made in particular. Later there will be someone whose job is to manage knowledge (knowledge management) during the project. The forms of management results can be in the form of documentation to web platforms, social media (facebook, Youtube, Instagram, twitter) news, podcasts, research results, journals, reports, books, fact sheets and films / photos.

- 4) Project implementation is also supported by information technology services with various service features to provide information, updating databases intended as information exchange spaces, learning reference materials from facilitation processes during the project.

- 5) Providing a place for communities to gather and exchange ideas, knowledge and experience in managing coastal areas sustainably.

- 6) The programme will also be coordinated through agencies within the local network in the project area. Project management will open the door to communication as much as possible with parties including stakeholders in order to collaborate for the management of knowledge that develops and is gained during the project.

H. The consultative process,

86. Consultations have also been conducted. This consultation process is carried out in a participatory manner to identify the interests of each beneficiary which will then be optimally accommodated in the proposal of the project.

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Figure 10. Coordination with the Head of the Marine and Fisheries Service of West Sulawesi Province. 23/08/22



Figure 21. Coordination with the Regional Development Planning Agency (Bappeda) of West Sulawesi Province.



Figure 312. Discussion with Village Youth in Majene District on Climate Change. 20/07/2022



Figure 413. The condition of the fishing community in Majene Regency when the sea catch arrives. 19/07/2022

26-87. Key stakeholders in the important role in climate change adaptation projects at the Provincial Government level are Bappeda, Marine and Fisheries Service, Environment Agency, Community and Village Empowerment Service (DPMD). The Consultation process was carried out with the head of the West Sulawesi Maritime and Fisheries Service. The topics of consultation included the impacts of climate change on the coast of West Sulawesi and how to build resilience in coastal communities against the impacts of climate change. The challenge of building resilience is the high stunting problem in West Sulawesi, and coastal communities are the biggest contributors. The project approach and plan are expected to be able to answer the problems and challenges facing the impacts of climate change that are occurring on the coast.

27-88. District level (Majene, Mamuju and Polmas) key stakeholders are Bappeda, Fisheries Service, Agriculture Office, Environment Agency, Women and Children Empowerment Service, Agriculture Office, Community and Village Empowerment Service (DPMD), Regional Disaster Management Agency (BPBD). The issues found at the district level are: Adaptation programs for the community are still minimal, the government is more focused on mitigation programs; remain weak on integrated development policies; Disaster responsiveness is still important to be at the district level, because the West Sulawesi Province is very vulnerable to disasters.

28-89. Local NGOs and Universities in West Sulawesi will be involved and become local partners driving climate change adaptation in coastal areas at the project site driven by the Blue Line Consortium. The topic of discussion concerns the vulnerability of coastal communities, the efforts that have been made and how to build and enhance the roles of stakeholders.

29-90. Consultation process were carried out with Youth groups, women (especially representatives of women's group "Bahari"), fishermen's groups and village governments, issues at the site level are economic issues, women's roles and capabilities, disasters and the impact of climate change have been felt by fishermen groups regarding changes in the schedule of fishing activities, fishing areas have been far out, fishing results have begun to decrease. Women's and youth groups are still looking for solutions economic empowerment in dealing with climate change. Village governments in responding to climate change is still not familiar, the program for vulnerable groups is only in the form of direct cash assistance. Based on the issues that have been discussed, then elaborated into a concept note to

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support the strengthening of vulnerable groups, women, youth and policy support at the village level in order to increase resilience to the impacts of climate change.

30-91. Based on observations and discussions with Sahabat Pulau Institute, ecotourism has a good potential to be developed in Tonyaman Village and Galeso Village (location map image) Currently the ecotourism potential in the two villages is routinely visited by the surrounding community. In the tonyaman village area there are several small islands in the coastal area, including Battoa Island, Deadea Island, Gusung Toraja Island and Tanggnga Island. Productive economic activities are also carried out by village women in the fishing village of Battoa Island, namely the processing of seaweed into processed food products that have added value to the household economy of the villagers.

31-92. This project will also encourage the strengthening of the implementation of the Climate Village Program (ProKlim) at the intervention site by involving community elements and stakeholders in the village in this case the village government, fishermen groups, farmers, and marginalized groups such as youth and women. In 2020 one hamlet in Tonyaman Village, namely Tonyaman hamlet, has been registered in the National Registry System for Climate Change Control as a ProKlim location. The National Registry System for Climate Change Control is a system of recording data and providing information on climate change control in Indonesia.

I. Justification for funding requested, focusing on the full cost of adaptation reasoning.

32-93. The costs in this project are used to finance the three components of this project; first, strengthening food security and livelihoods for coastal communities in the face of climate change; second, increasing the capacity of coastal community groups in climate change adaptation strategies; third, strengthening the collaboration of coastal communities and stakeholders in climate change adaptation. To finance the three components of this project, the Adaptation Fund will be fully funded.

33-94. A total of 51 activities were formulated to provide economic and social benefits for people who work as fishermen and live in coastal areas. In addition, this project will provide environmental benefits in nine villages in the West Sulawesi region.

34-95. The direct beneficiaries of this project are vulnerable communities around the coast of West Sulawesi Province. The project will build their individual and institutional capacities to adapt to climate change and protect their livelihoods.

Baseline (Without project)

35-96. The fisheries sector is one of the contributors to income for the economy in the 3 project locus districts. Based on BPS data in 2021, capture fisheries production in 3 locus regencies reached 53,839.49 tons, the largest in Polewali Mandar Regency reaching 25,243.76 tons, Mamuju Regency 20,765.73 tons and Majene Regency reaching 7,830 tons. Types of fish catch are dominated by types of tuna, skipjack, tuna, kite, fragility, and flying fish. However, this sector is one of the most affected by the impacts of climate change.

36-97. Community dependence is still very high on fishing activities, which in total reached 13,222 fishing households in 9 project location villages. In addition, the majority of the fleet used are small boats and outboard motors as well as simple fishing gear. This condition is classified as vulnerable for fishermen when dealing with the impacts of climate change.

Some of the impacts felt by fishermen in 9 target villages are:

- It is difficult to determine the fishing area.
- It is difficult to determine the fishing season.
- Increased risk of fishing.
- The decline in the quality of the population's water sources.

37-98. To intervene in the problems that occur at the intervention site, four project outcomes are formulated based on the results of the analysis of the previous conditions.

38-99. **Financing in outcome 1**, overcoming the impacts of climate change experienced by fishermen in the project location in the form of changes in migration and fish seasons. The final result of the adaptation strategy that is built is that fishermen are able to determine the catchment area based on map observations, fish seasons, local knowledge and the use of technology. The second is to present a new catchment area that is able to withstand climate change (CR3). The third is the reduced cost of fishing fishermen due to the uncertainty of the catchment area. And finally, with the use of technology, fishermen know extreme weather conditions, thereby reducing the risk of going to sea far

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away and having an affordable alternative catchment area.

39-100. Financing in outcome 2, the adaptation strategy built is to increase the value of fishery products (end products), sources of income for vulnerable groups (fish cultivation and enlargement), improve household food quality (reduce the risk of stunting). The end result impacts the economic and food security of coastal communities in the face of climate change.

40-101. Financing in outcome 3. Adaptation strategies must be built through collective (Socio-Psychological) consciousness and action. The strategy is built through increasing the knowledge and institutional capacity of coastal communities in the face of climate change impacts, sustainable coastal management and disaster response. The involvement of various actors in the project village is the key to success, ranging from the Government, fishing groups, women, vulnerable groups, and youth groups. In addition, this outcome also encourages the Early Warning System against disasters.

41-102. Financing in outcome 4. The adaptation strategy is built in the form of legitimacy and variations of support that will strengthen the adaptive capacity of the project location village. This is a form of sustainability strategy from every adaptation intervention carried out by the project. Variations of support are obtained from village funding and synergy of government sectoral programs that are responsive to climate change in reducing poverty and stunting as well as efforts to improve the management of coastal environmental services that are resistant to the impacts of climate change.

J. Sustainability of the project/programme

42-103. This project encourages the elaboration of stakeholders in responding to the impacts of climate change (Component 3). Internalization efforts will be carried out through multi-stakeholder facilitation, promotion and learning and knowledge campaigns resulting from this project to be adopted in climate change adaptation action plans, so that similar programs receive budgeting support from the regions. At the village level, we will encourage climate change adaptation policies and action plans as a commitment of Climate Villages or Proklim and encourage funding through village budgets that support the realization of adaptation action plans at the village level.

43-104. Food sustainability and sources of livelihood (Component 1) are carried out through the development of Coastal Food Houses as food centers and product processing managed by women's groups. This activity will be aligned with empowerment and food security programs in villages, both through BUMDES, PKK and other mutually agreed entities. This of course allows for development support from other sources, such as village funds, the marine and fisheries service and the district Food Security Service. In addition, strengthening is also carried out for the managers of the Food House to form independence, in the form of collective business management training, product processing, and marketing.

44-105. The organization of fishermen groups will continue to be optimized during the project and facilitate group registration at the district government. The registration of the group will make it easier to support the development of fisherman group activities/businesses. The organizing approach will be strengthened as a step towards awareness of the impact of climate change, as well as participatory processes in problem identification and action solutions. This will lead to the independence of fishermen groups in dealing with problems including climate change. In addition, the capacity of fishermen groups and networks that support their activities are also strengthened. The activity chain of fishermen groups will be integrated with business development driven by women and vulnerable groups.

45-106. Each project activity will involve village youth cadres, including capacity building. This builds insight and is a form of awareness of the threat of climate change in the village. Youth cadres act as organic facilitators in the design of this project, so they are expected to build sustainability after the project is finished. The involvement of coastal youth cadres is organized to be able to encourage adaptive improvement of rural communities, one of which is through the management of coastal information service shelters. The shelter will be a hub for coastal youth activities, from providing weather and disaster information, creating climate change promotions and campaigns, basic services, to coastal ecotourism development initiatives. This is very possible to do, considering the large number of youth literacy community movements that are developing in 3 project districts.

46-107. Social Sustainability: This project is designed to be consistent with the Adaptation Fund's social framework. Community participation in the project village will be actively involved, starting from

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project preparation, implementation, monitoring, to project completion. Project interventions will be internalized to the community so that after the completion of the project, it can increase the resilience of rural communities to climate change. In addition, this project also encourages an increase in disaster emergency response, so that rural communities have knowledge and readiness in responding to disasters that occur.

47-108. Institutional Sustainability: This project encourages institutional and capacity building at the community level. The institutional strengthening is carried out through a multi-stakeholder organizing, training, and facilitation process in order to independently be able to develop networks to support the development of their institutions. It is hoped that this will open cooperation with stakeholders, both government and private sector that support access to technology, programs, capital and others. In addition, they are able to convey their aspirations in every Village Development Deliberation or other forum that supports the sustainability of their activities. On the other hand, this institution is also prepared as a manager of facilities built during the project.

48-109. Financial Sustainability: This project promotes diversity and improvement of livelihoods through technology development and yield processing. The involvement of women in this project will contribute to household income through activities to process catches that increase the value of the goods produced. On the other hand, the use of apartments, fish encroachment and new catchment area maps, can further increase economic resilience in the face of climate change.

49-110. Environmental Sustainability: The fish apartments produced by this project are not only a new catchment area for fishermen, but also contribute to the improvement of coral reef habitat. This project also encourages capacity building related to integrated Coastal Management and waste treatment. In terms of policy, with the proclim action plan, it will further strengthen development efforts in villages that support ecosystem sustainability.

K. The environmental and social impacts and risks

50-111. Based on the description of the risk analysis of the implementation of the program, the initial screening of this program concluded that there was a potential for minor risks, small scale, not potentially widespread and could be easily overcome with uncomplicated but adequate mitigation measures. Therefore, according to the risk categorization of Adaptation Fund ESP Guidance, the scale of the potential risk is classified into **Category B**. Where there is a potential risk on a minimal scale.

51-112. This proposal on annex 2, describes the design of risk management planning that will be implemented as a form of risk mitigation and implementation of the Environmental and Social Policy of Adaptation Fund insurance

52-113. The negative impact that may arise from this project is the involvement of vulnerable groups that are not on target, if the assessment and participation processes do not go well. Therefore, this project needs to carry out an in-depth assessment and mapping of actors.

53-114. Another negative impact is the potential for fish apartment locations to be accessed by other fishermen who are not direct beneficiaries of the project. This will be anticipated through arrangements from the village government and groups, as well as monitoring developments and receiving benefits from fish apartments. The location of the fish apartment will be adjusted to an easily accessible location, so that the monitoring process is easy to do.

54-115. The development of fishery product diversification will cut the chain of sales of fish caught by fishermen. This impact will be felt by collectors or wholesalers, but the target group will feel the added value of the fishery products.

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| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|--|---|--|
| <i>Compliance with the Law</i> | The project implementation will ensure that all activities comply with the law, and in principle, the project implementer will ensure that all licensing components follow the applicable regulations. Every permit will follow the regulations written in Part II - D & E on this project concept note. Therefore, there are no risks and negative impacts arising from the project, so no further assessment is needed | None |
| <i>Access and Equity</i> | The project does not hinder access to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, and land rights. The project also does not exacerbate existing inequities, particularly concerning marginalized or vulnerable groups. The project has been designed not to impede any group's access to the essential services and rights stated in principle and therefore does not require further compliance assessment | <ol style="list-style-type: none"> 1. NonAt the output of the catchment area map and the new catchment area through the apartment can be fully accessed by fishermen. The potential risk that will occur is competition for fishing with large fishermen or industry in the catchment area 2. there is a limited number of floating net cages in each village which is adjusted to the ecosystem conditions. This risks causing social jealousy from people who are not the direct beneficiaries. open arrangements are needed regarding the appropriate beneficiaries 3. There is a risk that fishermen depend on traders in the form of debt or something like that. This has the risk of reducing fishermen's participation in food home development activities and product diversification |
| <i>Marginalized and Vulnerable Groups</i> | None | The project that will be implemented will not harm vulnerable groups in fact this project will target vulnerable groups as direct beneficiaries. However, there is no detailed data on vulnerable groups at the target locations. For this reason, further assessment is needed |
| <i>Human Rights</i> | The project will respect and, if possible, promote international human rights. Promoting human rights will be achieved by creating awareness with everyone involved in the project, including planning, implementation, monitoring, and evaluation. The International Declaration of Human Rights became the guiding principle for the entire project. So, it does not require further assessment of compliance | None |
| <i>Gender Equality and Women's Empowerment</i> | None | The project is designed to comply with the principles of gender equality. Men and Women will certainly have the same opportunity to be involved in the project. Each project structure and activity carried out will involve as much as 30%. Women's empowerment will have its own activities that have been designed in the project. However, it is very important to know to what extent women's groups have been involved in empowerment programs implemented by local governments and to what extent women's groups have been involved in decision-making processes at both the family and village levels. So, further compliance assessment is needed. |
| <i>Core Labour Rights</i> | The proposed project will meet the required work standards determined by international and national standards. The ILO labor standards are stated in the Declaration of Principles and Fundamental Rights and Rights in 1998. Meanwhile, the National standards follow the fulfillment of rights for workers such as health insurance, work safety, and others. Thus, the project will incorporate the core ILO labor standards in the design and implementation of the project or program and create awareness among all involved on how these standards are applied. Apart from that, this project will also follow Law No. 11 of 2020 concerning Cipta Kerja, which includes how employment is regulated. The entire program is not related to violations of core labor rights, so no further assessment is required | The proposed project will meet the required work standards determined by international and national standards. The ILO labor standards are stated in the Declaration of Principles and Fundamental Rights and Rights in 1998. Meanwhile, the National standards follow the fulfillment of rights for workers such as health insurance, work safety, and others. Thus, the project will incorporate the core ILO labor standards in the design and implementation of the project or program and create awareness among all involved on how these standards are applied. Apart from that, this project will also follow Law No. 11 of 2020 concerning Cipta Kerja, which includes how employment is regulated. None Mapping and identification of catchment areas and installation of fish apartments are carried out in a participatory manner. there is a risk of accidents arising from bad weather, insufficient safety equipment, inadequate fleet. These risks |

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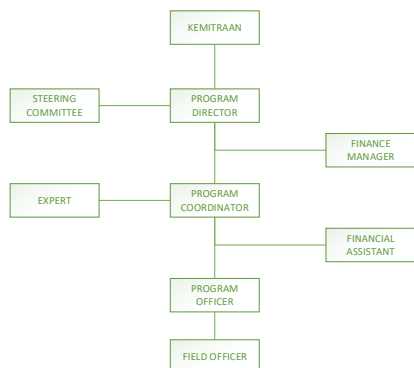
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| | | will be anticipated through good preparation. |
| <i>Indigenous Peoples</i> | The proposed project in the target location does not have any indigenous peoples, so no further assessment is required | None |
| <i>Involuntary Resettlement</i> | In the target location project , there are no activities to move houses, loss of assets or access that lead to sources of income or livelihoods of the community, public facilities. So, no further assessment is required. | None |
| <i>Protection of Natural Habitats</i> | None | Installation of fish apartments and mapping of fishing areas will be adjusted to the conditions at the project site, including suitability for protected areas. This project requires an assessment of the suitability of marine protected areas and fishing areas in accordance with applicable regulations. |
| <i>Conservation of Biological Diversity</i> | | Coastal resilience with this proposal the program not only focuses on human resilience, but also considers appropriate biodiversity. Potential risks: <ul style="list-style-type: none"> - At the target location of the project in one village, namely Tonyaman Village, it is very famous for the potential for turtle conservation, this is very important to ensure biodiversity protection to the community. - The environment and ecosystem towards the construction of tourist facilities in the village area will become tourism. Requirement: <ul style="list-style-type: none"> - It is necessary to strengthen socialization at the village level or the village government must have village regulations to maintain the potential of sea turtles - Every development of tourism development in the coastal area is important to have a UKL-UPL document |
| <i>Climate Change</i> | The proposed project does not add to its positive contribution to climate change; precisely through this program's so that communities can adapt to the impacts of current climate change. So, there is no further assessment Needed | None |
| <i>Pollution Prevention and Resource Efficiency</i> | The project does not produce pollutants or waste production, fish apartment use environmentally friendly materials that become new habitat for fish, so no further assessment is required. | None |
| <i>Public Health</i> | There is no risk to public health from program. Program activities will continue to be sure not to put public health and safety in danger state by following the relevant applicable Law and regulation. | - |
| <i>Physical and Cultural Heritage</i> | The proposed project poses no threat to physical and cultural heritage in any selected communities being targeted. so no further assessment is required | None |
| <i>Lands and Soil Conservation</i> | In the implementation of the project there are no activities that damage soil conservation, damage underwater ecosystems, even this project will improve marine ecosystems. so no further assessment is needed | None |

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PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.



| Structure | Duties and responsibilities | Explanation |
|---------------------|--|--|
| Steering Committee | The Steering Committee (SC) will oversee the entire program implementation to ensure that the facilities and mechanisms have run the program effectively so as to achieve the desired results, while also representing the voices of stakeholders who are not directly responsible for the project. In the process of running the project, SC will provide technical guidance and advice to implementation programme | Steering Committees that will be involved include: National Governments, Provincial Governments, Local Governments, Village Governments, Academics, and civil society. National governments, they are: Ministry of Environment and Forestry (KLHK), Ministry of Marine and Fisheries (KKP), and Ministry of Public Works (PUPR) and Provincial and District Governments |
| Program Director | <ol style="list-style-type: none"> 1. Together with the EE in selecting PMU 2. Together with PMU, the Program Implementation Plan will be prepared as a guide for implementing the program 3. Ensure that the program is carried out in accordance with the objectives 4. Together with the Kemitraan in monitoring progress and results of achievement 5. Coordination Program progress and program problems to the Steering Committee | The Program Director is the Program leader who will be responsible for the National Implementing Entity through reporting results |
| Finance Manager | The Finance Manager will be responsible for financial and administrative management for the overall implementation of the program | |
| Expert | <p>Will be responsible for studies:</p> <ol style="list-style-type: none"> 1. Mapping the fishing ground area, 2. Monitoring & Evaluation Specialist, 3. Social gender Specialist, 4. Coral Reef Restoration 5. Fish Cultivation and seaweed | Is a team of experts in their respective fields that are tailored to the Program Plan |
| Program Coordinator | <ol style="list-style-type: none"> 1. Coordination with Outcome Leader Component in implementing the program 2. Coordination with provincial and district governments 3. Ensuring the course of the program is in accordance with the goals and results to be achieved 4. Report the program results in the Program Director | |
| Financial Assistant | Financial Assistance will be responsible for financial and administrative management for program implementation in accordance with the direction of the Program Coordinator | |
| Program Officer | <ol style="list-style-type: none"> 1. Together with the Coordinator Officer, the program implementation plan is planned as a guideline for implementation 2. ensure that the program is carried out in accordance with the objectives 3. coordination of program progress and program problems with the Program Coordinator 4. Coordination with the District Government | |
| Field Officer | <ol style="list-style-type: none"> 1. communication with the community 2. provide a report to the Coordinator Officer | The intended beneficiaries include: Fisherman Groups, Women and Vulnerable |

B. Describe the measures for financial and project / programme risk management.

| Risk | Level | Proposed mitigation measures |
|---|---------------|--|
| It is difficult to coordinate activities with the many institutions involved, both government and non-government. | Medium | Clarify the role of each stakeholder in the project and establish effective coordination. |
| The fishing community did not want to actively participate in the project. | Medium | Develop a participatory approach in the project, from planning to implementation and prove the success of the program through pilot projects. |
| Some of the technologies that will be utilized in the project are new to fishermen, including new knowledge such as floating cages and fish apartments, so it may be difficult for them to adopt quickly. | Low | Train fishermen to use technology and introduce new knowledge in a method that is easily understood by fishers who benefit from the program |
| Due to the involvement of multiple institutions in the project, there may be a risk of financial liability | Low | Develop standard operating procedures for using detailed project budgets and train all partners to understand these standards. |
| Limited baseline data needed in the project, especially to understand the current condition of the target location | Low | Conduct baseline studies |
| Bad weather on the coast where the project is located may interfere with the implementation of project activities. | Low to Medium | Conduct a condition analysis on the project site to understand the risks arising from bad weather and adjust the materials needed in the project |

C. Environmental and social risk management, in line with the Policy of the Adaptation Fund.

| Risk Identification | Risk Level | Mitigation action |
|--|------------|--|
| Adjustments to existing government development planning | Low | Involvement of Local Governments in the preparation and development of action plans |
| Lack of commitment to develop coordination (whether from provincial, district, or village governments that intervene) | Medium | Involvement of Provincial and District Governments as Steering Committee |
| Lack of commitment and consistency in the application of the latest methods and technologies | Medium | Provide recommendations for the results of program studies to the Provincial and District Governments |
| Long administrative procedures in the physical improvement of the environment | Low | Participation and involvement of CSOs and NGOs in program implementation |
| Adjustment of government time in drawing up strategic plans (before and after the project) | Medium | Preparation of project work plans involving provincial and district governments |
| Climate change adaptation scenarios that are not detailed enough to the provincial and district levels in making decisions | Low | The use of SIDIK as a media for coastal areas in government decision making |
| Lack of commitment of local governments in integrating climate change adaptation into development plan products | Low | Provide supporting recommendations in the preparation of legal products for regional development plans |
| Climate change adaptation plans are not a priority for governments today | Low | Local government engagement on climate change adaptation awareness |
| Lack of commitment from coastal communities on climate change adaptation | Low | Capacity building of local communities |

D. Monitoring & Evaluation plan

55-1. Monitoring and evaluation will be carried out periodically every three months by the Steering Committee as an advisor program. The results of the evaluation will be used as a guideline for improving the implementation of activities. Monitoring and evaluation will be carried out by an independent party each year, unless otherwise specified by the Adaptation Fund and partnership. The results of the evaluation will be used as recommendations for improvement and preparation of the annual work plan and if necessary, adaptation will be carried out following the latest local/central government policy directions (if any).

| Activities | Budget (USD) | Time | Description |
|-----------------------------|--------------|--------------------------|-----------------------|
| Baseline and endline Survey | 2.000 | Start and end of project | Report |
| Triwulan Monitoring | 8.000 | Every three months | Meeting and report |
| Annual Monitoring | 6.342 | Annual | Site Visit and report |
| Final Evaluation Report | 1.678 | End of Project | Site Visit and report |
| Audit Report | 6.040 | Annual | Report |

E. Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.

| Expected results | Indicators | Basic Data | Targets | Verification Tools | Milestones | AF Strategic Result Framework |
|---|--|---------------------------------------|--|--|---|-------------------------------|
| Complete Objective: Improving the resilience of communities through the support of collaborative action of stakeholders on the impacts of climate change | | | | | | |
| Increasing climate resilience of coastal rural communities that contribute to reducing poverty and stunting | <ul style="list-style-type: none"> - Increase adaptive capacity of fisherman and vulnerable groups in livelihood in response to climate change - Active coastal community organizations and networking with stakeholders - Early warning system mechanism in village project - Management of environmental services in response to climate change - Cross sectoral government policy or program support | | <ul style="list-style-type: none"> - 3 vulnerable groups for cultivating shallow water fish - Increase in fishermen's income at least 20% - Increased income of vulnerable groups of at least 30% - Ecotourism management based on environmental services in response to climate change - 3 government policies or programs that work together to support food security and local economic development - Cooperation with 2 new Market | <ul style="list-style-type: none"> - Report of study and research result - Project M&E report - Annual report - Activity Documentation - copies of government policy or program documents | During, post, and within project implementation | |
| Component 1: Strengthening food security and livelihoods for coastal communities in the face of climate change | | | | | | |
| Strengthened the adaptive capacity of fisherman in the face of changes in migration and fish seasons | Number of fishing communities whose adaptive capacity increases in accessing livelihood sources | Will be completed during the research | <ul style="list-style-type: none"> - Increased adaptive capacity of fisherman in determining catchment areas on a regular basis using local knowledge and technology - Reduced fishing operational costs caused by uncertain fishing areas (20%) - Increased fishing spots | <ul style="list-style-type: none"> - The report of study - M&E report - End Year Report | During, post, and within project implementation | Outcome 6 |
| Increased the diversity of livelihoods and income sources in vulnerable groups at the project site | Percentage of vulnerable groups who have access to new sources of livelihood | Will be completed during the research | <ul style="list-style-type: none"> - New sources of income for vulnerable groups - The role of women in increasing income and fulfilling household food for fishermen is increasing - Increasing the value of fishery products through end product diversification | <ul style="list-style-type: none"> - The report of study - M&E report - End Year Report | During, post, and within project implementation | Outcome 6 |
| Component 2: Capacity building of coastal community groups in climate change adaptation strategies | | | | | | |

| | | | | | | |
|---|---|--|--|---|--|--|
| <p>Increased awareness and capacity of coastal communities in climate change adaptation strategies</p> | <ul style="list-style-type: none"> - Number of coastal village communities who have increased awareness and capacity of coastal communities in climate change adaptation strategies - Existence of an early warning system mechanism for disasters impacted by climate change in project location | <p>Will be completed during the research</p> | <ul style="list-style-type: none"> - Participatory climate change vulnerability and risk survey in village project - The role of 12 coastal community institutions (Fishermen and Youth) is increasing in the efforts of climate change adaptation strategies - 900 Communities village in the project site increase their knowledge of coastal village development in response to climate change and disaster response - the existence of disaster information services and basic services managed by youth (Early Warning System) - community participation in village development deliberations and encouraging efforts to adapt to climate change | <ul style="list-style-type: none"> - The report of activity - M&E report | <p>One year after project implementation</p> | <p>Outcome 1 Outcome 2 Outcome 3</p> |
| <p>Component 3: Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation</p> | | | | | | |
| <p>Established of multistakeholders elaboration action and policy support in response to the impact of climate change</p> | <ul style="list-style-type: none"> - Number of cross sectoral government policy or program support - Number of knowledge products disseminated - Improved management of environmental services (Mangrove and coral Ecosystem) in response to climate change | <p>Will be completed during the research</p> | <ul style="list-style-type: none"> - 3 villages received program support for Climate Village (PROKLIM) - 3 Government policies or programs sector - Ecotourism management based on environmental services in response to climate change - Monthly publications and campaigns with relevant topic of climate change | <ul style="list-style-type: none"> - The report of activity - M&E report - copies of government policy or program documents - Website or Social Media | <p>During, post, and within project implementation</p> | <p>Outcome 3 Outcome 4 Outcome 5</p> |

F. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

| Project Objective (s) | Project Objective Indicator (s) | Fund Outcome | Fund Outcome Indicator | Grant Amount (USD) |
|---|---|--|---|--------------------|
| <u>Strengthening food security and livelihoods for coastal communities in the face of climate change</u> | - Number of fishing communities whose adaptive capacity increases in accessing livelihood sources - Percentage of vulnerable groups who have access to new sources of livelihood | AF Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas | 6.1. Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods | 305.513 |
| <u>Capacity building of coastal community groups in climate change adaptation strategies</u> | Number of coastal village communities who have increased awareness and capacity of coastal communities in climate change adaptation strategies | AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | 3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses | 325.800 |
| | Number of local and village government staff with improved capacity to respond climate change | AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses | 2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased | |
| | Existence of an early warning system mechanism for disasters impacted by climate change in project location | AF Outcome 1: Reduced exposure to climate-related hazards and threats | 1.2. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis | |
| <u>Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation</u> | Number of villages received program support for Climate Village (PROKLIM) | AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | 3.2. Percentage of targeted population applying appropriate adaptation responses | 179.821 |
| | Number of Cross sectoral government policy or program support | AF Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets | 4.1. Responsiveness of development sector services to evolving needs from changing and variable climate | |
| | Management of environmental services in response to climate change based on Ecowisata | AF Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress | 5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress | |
| | Monthly publications and campaigns with relevant topic of climate change | AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | 3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses | |

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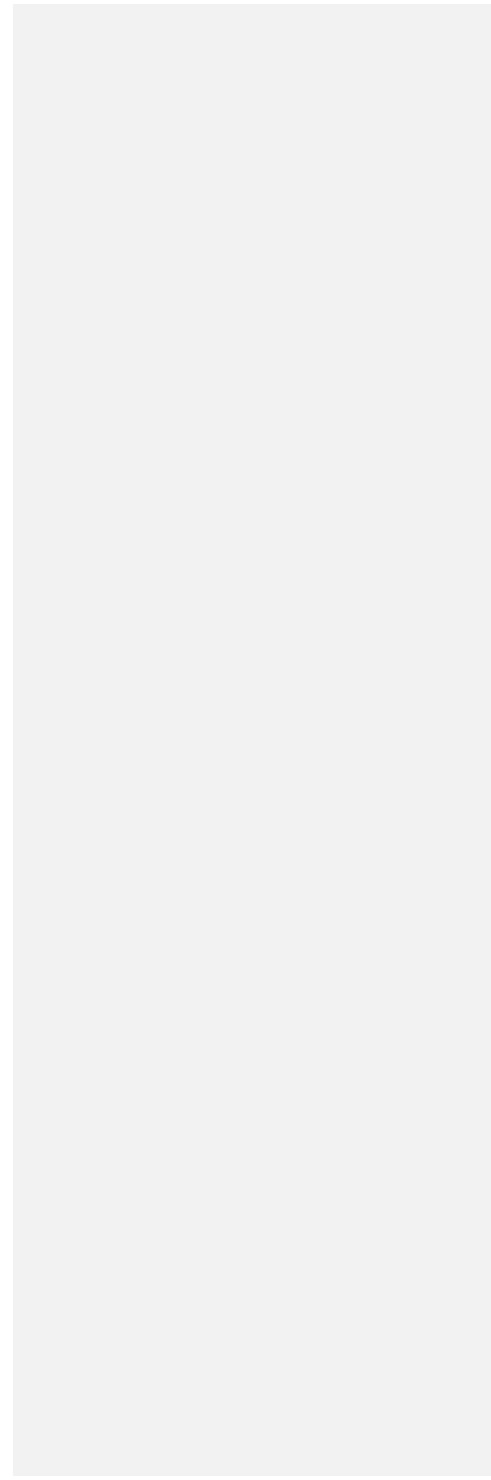
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| Project Objective (s) | Project Objective Indicator (s) | Fund Outcome | Fund Outcome Indicator | Grant Amount (USD) |
|--|---|--|---|--------------------|
| Strengthening food security and livelihoods for coastal communities in the face of climate change | <ul style="list-style-type: none"> Number of fishing communities whose adaptive capacity increases in accessing livelihood sources Percentage of vulnerable groups who have access to new sources of livelihood | AF Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas | <ul style="list-style-type: none"> 6.1. Percentage of households and communities having more secure access to livelihood assets 6.2. Percentage of targeted population with sustained climate resilient alternative livelihoods | 305,513 |
| Capacity building of coastal community groups in climate change adaptation strategies | Number of coastal village communities who have increased awareness and capacity of coastal communities in climate change adaptation strategies | AF Outcome 2: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | 2.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses | 325,800 |
| | Number of local and village government staff with improved capacity to respond climate change | AF Outcome 2: Strengthened institutional capacity to reduce risks associated with climate induced socioeconomic and environmental losses | 2.1. Capacity of staff to respond to, and mitigate impacts of, climate related events from targeted institutions increased | |
| | Existence of an early warning system mechanism for disasters impacted by climate change in project location | AF Outcome 1: Reduced exposure to climate related hazards and threats | 1.2. Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis | |
| Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation | Number of villages received program support for Climate Village (PROKLIM) | AF Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level | 2.2. Percentage of targeted population applying appropriate adaptation responses | 179,821 |
| | Number of Cross sectoral government policy or program support | AF Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets | 4.1. Responsiveness of development sector services to evolving needs from changing and variable climate | |
| | Management of environmental services in response to climate change based on Eewisata | AF Outcome 5: Increased ecosystem resilience in response to climate change and variability induced stress | 5. Ecosystem services and natural resource assets maintained or improved under climate change and variability induced stress | |

Monthly publications and campaigns with relevant topic of climate change

AF Outcome 3-
Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level

3.1- Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses



| Project Outcome (s) | Project Outcome indicator (s) | Fund Output | Fund Output Indicator | Grant Amount (USD) |
|---|---|--|---|--------------------|
| Strengthened the adaptive capacity of fishermen in the face of changes in migration and fish seasons | - Increased adaptive capacity of fisherman in determining catchment areas on a regular basis using local knowledge and technology - Reduced fishing operational costs caused by uncertain fishing areas (20%) - Increased fishing spots | Output 6.1. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability | 6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies | 117,572 |
| Increased the diversity of livelihoods and income sources in vulnerable groups at the project site. | - New sources of income for vulnerable groups - The role of women in increasing income and fulfilling household food for fishermen is increasing - Increasing the value of fishery products through end product diversification | Output 6.1. Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability | 6.1.2. Type of income sources for households generated under climate change scenario | 187,941 |
| Increased Awareness and Capacity of Coastal Communities in Climate Change Adaptation Strategies. | Participatory climate change vulnerability and risk survey in village project | Output 1.1. Risk and vulnerability assessments conducted and updated | 1.1.1. No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale) | 325,800± |
| | - The role of 12 coastal community institutions (Fishermen and Youth) is increasing in the efforts of climate change adaptation strategies - Number of Communities in the project site increase their knowledge of coastal village development in response to climate change and disaster response | Output 3.2. Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning | 3.2.1 No. of technical committees/associations formed to ensure transfer of knowledge | |
| | Improved capacity of local and village government staff to respond climate change | Output 2.1: Strengthened capacity of national and sub-national centers and networks to respond rapidly to extreme weather events | 2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) | |
| | The existence of disaster information services and basic services managed by youth (Early Warning System) | Output 1.1. Risk and vulnerability assessments conducted and updated | 1.1.2. No. of early warning systems (by scale) and no. of beneficiaries covered | |
| Establishment of Multi-Stakeholder elaboration Action and policy support in response to the impacts of climate change | Number of villages that have climate change action plans through Proklim | Output 3.2. Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning | 3.2.2 No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders | 179,821 |
| | Number of cross sectoral government policy or program support | Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability | 4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale) | |
| | Number of knowledge products disseminated with relevant topic of climate change | Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities | 3.1.1 No. of news outlets in the local press and media that have covered the topic | |
| | Improved management of environmental services in response to climate change based on Ecowisata | Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability | 5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale) | |

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

| Component budget | Personal | Consumable | Equipment | Transport Vehicle | Consultancy/Trainer/Expert | Contractor and Service provider (Physical Development) | Maintenance Cost | Monev | Training | Total cost |
|---|----------|------------|-----------|-------------------|----------------------------|--|------------------|--------|----------|----------------|
| Outcome 1 | 19,514 | 7,697 | | 13,534 | 7,448 | | 68,966 | | 414 | 117,572 |
| Outcome 2 | 67,493 | 82,379 | | 30,552 | | | | | 7,517 | 187,941 |
| Outcome 3 | 148,579 | 68,400 | 10,345 | 98,269 | | | | | 207 | 325,800 |
| Outcome 4 | 29,292 | 28,400 | 3,356 | 28,236 | 35,034 | 13,423 | | 11,678 | 30,403 | 179,821 |
| Project Execution costs, (vehicle, salaries, M&E, general secretariat services, Coordination fees, Stake holders Meetings,) | 52,349 | | 7,315 | 4,832 | 1,208 | | 3,866 | 6,040 | | 75,611 |
| Administrative Cost | 83,758 | | | | | | | | | 83,758 |
| Institution cost | | | | | | | | | | - |
| Total Fund Request | | | | | | | | | | 970,503 |

| Component budget | Personal | Consumable | Equipment | Transport Vehicle | Consultancy/Trainer/Expert | Contractor and Service provider (Physical Development) | Maintenance Cost | Monev | Training | Total cost |
|---|----------|------------|-----------|-------------------|----------------------------|--|------------------|--------|----------|----------------|
| Outcome 1 | 19,514 | 7,697 | | 13,534 | 7,448 | | 68,966 | | 414 | 117,572 |
| Outcome 2 | 67,493 | 82,379 | | 30,552 | | | | | 7,517 | 187,941 |
| Outcome 3 | 148,579 | 68,400 | 10,345 | 98,269 | | | | | 207 | 325,801 |
| Outcome 4 | 29,292 | 28,400 | 3,356 | 28,236 | 35,034 | 13,423 | | 11,678 | 30,403 | 179,821 |
| Project Execution costs, (vehicle, salaries, M&E, general secretariat services, Coordination fees, Stake holders Meetings,) | 52,349 | | 7,315 | 4,832 | 1,208 | | 3,866 | 6,040 | | 75,611 |
| Administrative Cost | 83,758 | | | | | | | | | 83,758 |
| Institution cost | | | | | | | | | | - |
| Total Fund Request | | | | | | | | | | 970,503 |

H. Include a disbursement schedule with time-bound milestones.

| Project Objective/Component | Time - bound milestones disbursement Schedule per objective - Costs in USD | | | |
|---|--|----------------|----------------|----------------|
| | Year 1 | Year 2 | Year 3 | Total |
| 1.1 There is a map of the catchment area that adapts to migration patterns and fish seasons | 19,054 | | | 19,054 |
| 1.2. Fisherman are able to identify and develop new fishing spots through fish apartments The existence of a new spot for the catchment area through the fish apartment at the project site | 95,362 | | | 95,362 |
| 2.1 There is an increase in the encroachment of Floating Nets managed by vulnerable groups | 96,785 | | | 96,785 |
| 2.2 Managed Coastal Food House System by Women's Groups which become food centers and processing of production products | 86,111 | | | 86,111 |
| 3.1 9 group fishermen increase capacity in terms of institutional and sustainable coastal ecosystem management | | 164,725 | | 164,725 |
| 3.2 100 communities in each village increase knowledge and awareness of the impacts and adaptation strategies of climate change and disaster emergencies | | 109,644 | | 109,644 |
| 3.3 Formation of coastal youth cadres | | 42,685 | | 42,685 |
| 4.1 Registration of 3 villages as Proklim villages | | | 21,141 | 21,141 |
| 4.2 The preparation of village action plans/policies in an effort to adapt to climate change | | | 5,839 | 5,839 |
| 4.3 Managed coastal environmental services through coastal tourism villages Coastal-tourism-villages-increase-in-management- | | | 41,322 | 41,322 |
| 4.4 The establishment of a commitment to the support of stakeholders in climate change adaptation efforts | | | 18,936 | 18,936 |
| 4.5 Managed project knowledge products as a form of dissemination of climate change adaptation | 17,248 | 17,248 | 75,034 | 109,530 |
| Administrative Cost | 27,919 | 27,919 | 27,919 | 83,758 |
| Institution Administrative Costs | 30,080 | 22,765 | 22,765 | 75,611 |
| Total Fund Request | 372,560 | 384,987 | 212,956 | 970,503 |

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

A. Record of endorsement on behalf of the government² *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

| | |
|---|--------------|
| <i>A. Aco Takdir, S.Sos., M.Pd. Kepala Dinas Lingkungan Hidup Provinsi Sulawesi Barat</i> | July 14 2022 |
| <i>H.A. Achmad Syukri, SE., MM Bupati Majene</i> | July 12 2022 |
| <i>Ir. Hj. Ichwanti, M.AP. Kepala Dinas Kelautan dan Perikanan Kabupaten Majene</i> | July 12 2022 |

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

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 (.....list here.....) 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.

| | |
|---------------------------------|-----------------|
| <i>Name & Signature</i> | |
| Implementing Entity Coordinator | |
| Date: <i>(Month, Day, Year)</i> | Tel. and email: |
| Project Contact Person: | |
| Tel. And Email: | |



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

Mangga Winabati Building Block VI 12th Floor, Jalan Gajah Suroto - Senayan, Jakarta 10170
Phone +62 21 5730544 Fax: +62 21 5730534

Website: <http://dicerapan.mempri.go.id>

email: cc@mempri.go.id

Our Ref: *J. 283 / PP1 / PP1 / 010 / 2022* Jakarta, 5 August 2022
Attachments:
Subject: Letter of endorsement

To:
The Adaptation Fund Board
c/o Global Environment Facility
Mail stop: N 7-700
1818 H Street NW
Washington DC 20433, USA

Dear Board Member,


Directorate General of Climate Change Ministry of Environment and Forestry as the National Designated Authority of Adaptation Fund in Indonesia through *Kemitraan - Partnership for Governance Reform* as the National Implementing Entity, have received and appraised 37 incoming concept notes.

After a thorough assessment process of the incoming concept notes, we come to the decision that the following 10 (ten) concept notes from 10 (ten) different organizations have met and are in accordance with the national priorities in the implementation of adaptation programs and activities to increase adaptive capacity and to reduce the impact and risks of climate change in vulnerable regions in Indonesia:

1. Yapaka: *Ecosystem-based Adaptation to Support Climate Resilience in Coastal and Small Islands of Rote Ndao and Sabu Raijua Districts in the Savu Sea*
2. TLKM: *Sustainable Landscape Governance: Towards Climate Resilience of Community in Tempe Lake Ecosystem*
3. KAPASITAS: *Adaptation to climate change through integrated forest management and sericulture business to achieve ecosystem resilience to food security for the Lake Tempe Catchment Area Community*
4. Geris Biru: *Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province*
5. Sajogyo Institute: *Collaboration for the Conservation of Cimaniki Watershed Landscapes through the Potential of Silvopasture and Community Agroforestry*
6. KOAKSI: *Building Climate Resilient District in Indonesia: Case of Sigi District*
7. KEMITRAAN: *Village Based Coastal Adaptation and Resilience in Lontok Province of West Nusa Tenggara*
8. HUMA: *Change Climate and Adaptation in the Buffer Area of the New National Capital*
9. Mitra Aksi: *Increasing the resilience of smallholders from climate impacts through Smart Agriculture based on Livelihood Diversification in Indonesia*
10. KUAT (KARSA): *Strengthening Community Adaptation toward Climate Change through ProKim in Ecoregion Neck of Sulawesi Island*

With this consideration, and in my capacity as the National Designated Authority of Adaptation Fund in Indonesia, I recommend the above proposals be granted support from the Adaptation Fund Board. All these programs will be executed by each of the submitting entities under the supervision of *Kemitraan - Partnership for Governance Reform*.

Sincerely yours,


Laksmi Dhewanthi
Director General of Climate Change
Ministry of Environment and Forestry
as Indonesia Designated Authority of Adaptation Fund

Copy to:
Kemitraan (Partnership Governance Reform in Indonesia)



Certificate No. CSC 01889

Endorsement Letter

Dinas Kelautan dan Perikanan Kabupaten Majene



SURAT REKOMENDASI

Nomor: 549.2/332.1/2023

Surat yang berlaku hingga 31 Januari 2024

Nama : S. A. KURNIAWATI, S.P
NIP : 19631020 196202 2 0112
Tempat/Date : Pontianak/Utara Madura, W.I
Jabatan : Kepala Dinas
Unit Kerja : Pemerintah Kabupaten Majene
Alamat : Dinas Kelautan dan Perikanan Kab. Majene

Menyatakan Rekomendasi dan Dukungan penuh kepada "Sulawesi Community Foundation (SCF)" sebagai lembaga yang aktif bekerja di Pulau Sulawesi dengan fokus kegiatan pemberdayaan Masyarakat dan Mandiri Vill Masyarakat Sulawesi Mandiri dan Sejahtera dalam Programnya diantaranya Akademi dan Pelatihan. Dimana saat ini tanggapan Daerah di Kabupaten Majene, sebagai salah satu kegiatan pada Pengabdian Sosial Adaptasi Perubahan Iklim dengan Tema "Penguatan Kapasitas Masyarakat Pantai dalam Adaptasi Perubahan Iklim pada Wilayah Nelayan dan Majene" yang akan dibantu melalui "Konsortium Garis Bina" sebagai koordinator konsortium yaitu Lembaga Sulawesi Community Foundation (SCF).

Ditandatangani dan Ditandatangani di: untuk dipergunakan sebagaimana mestinya.



Pemerintah Kabupaten Majene a.n. Bupati Majene



SURAT REKOMENDASI

Nomor: 551.1/442.1/2023

Surat yang berlaku hingga 31 Januari 2024

Nama : S. A. KURNIAWATI, S.P
Jabatan : Bupati Majene
Unit Kerja : Pemerintah Kabupaten Majene

Menyatakan Rekomendasi dan Dukungan penuh kepada "Sulawesi Community Foundation (SCF)" sebagai lembaga yang aktif bekerja di Pulau Sulawesi dengan fokus kegiatan pemberdayaan Masyarakat dan Mandiri Vill Masyarakat Sulawesi Mandiri dan Sejahtera dalam Programnya diantaranya Akademi dan Pelatihan. Dimana saat ini tanggapan Daerah di Kabupaten Majene, sebagai salah satu kegiatan pada Pengabdian Sosial Adaptasi Perubahan Iklim dengan Tema "Penguatan Kapasitas Masyarakat Pantai dalam Adaptasi Perubahan Iklim pada Wilayah Nelayan dan Majene" yang akan dibantu melalui "Konsortium Garis Bina" sebagai koordinator konsortium yaitu Lembaga Sulawesi Community Foundation (SCF).



Dinas Lingkungan Hidup Provinsi Sulawesi Barat



SURAT REKOMENDASI

Nomor: 500.00/S/17/011/2023

Yang bertandatangan dibawah ini:

Nama : A. Aca Takdir, S.Sos, M.Pd
NIP : 19670702 199103 1 011
Pangkat/Gol : Pembina Utama Muda / IV.c
Jabatan : Kepala Dinas
Instansi : Dinas Lingkungan Hidup Provinsi Sulawesi Barat

Menyatakan Rekomendasi dan dukungan penuh kepada "Konsortium Garis Bina" untuk Adaptasi Perubahan Iklim sebagai konsortium yang aktif dalam pemberdayaan masyarakat di Pulau Sulawesi. Dimana saat ini mengukuhkan wilayah di Provinsi Sulawesi Barat yaitu Kabupaten Poleman, Majene dan Marau sebagai lokasi kegiatan pada pengabdian proyek Adaptasi Perubahan Iklim tahap II yang dikelola oleh KEMITRAAN dengan tema "Penguatan Kapasitas Masyarakat Pantai dalam Adaptasi Perubahan Iklim pada Nelayan Sulawesi Barat". Sebagai koordinator konsortium yaitu Sulawesi Community Foundation (SCF).

Ditandatangani surat rekomendasi ini untuk dipergunakan sebagaimana mestinya.





Project Formulation Grant (PFG)

Submission Date: **August 8, 2022**

Adaptation Fund Project ID:
Country/ies: **Indonesia**
Title of Project/Programme: **Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change through Stakeholder Elaboration Actions in West Sulawesi Province**
Type of IE (NIE/MIE): **NIE**
Implementing Entity: **Kemitraan – The Partnership for Governance Reform**
Executing Entity/ies: **KONSORSIUM GARIS BIRU (BLUE LINE)**

A. Project Preparation Timeframe

| | |
|------------------------|-------------------------|
| Start date of PFG | 1 September 2022 |
| Completion date of PFG | 30 November 2022 |

B. Proposed Project Preparation Activities (\$)

Describe the PFG activities and justifications:

| List of Proposed Project Preparation Activities | Output of the PFG Activities | USD Amount |
|---|--|------------|
| Data collection for baseline and analysis for each component | Collected data required to set up the basis for argument formulation and programme justification in the proposal | \$ 13.783 |
| 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 | \$ 19.656 |
| Focus Group Discussion with Multistakeholders | To receive feedback and input on the Goal, Objective, Outcome and Output of the proposal which to be submitted to AF, so as to ensure it is in line with the national programmes and strategies of climate change adaptation | \$ 3.621 |
| Total Project Formulation Grant | | \$ 50.000 |

C. Implementing Entity

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

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

Annex 2. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF) DOCUMENT

A. Summary description of the project/programme

The project is titled “**Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province**”.

The objectives of this project are **Strengthening the Adaptive Capacity of Coastal Village Communities in Supporting Food Security as a Response to Climate Change Through Stakeholder Elaboration Actions in West Sulawesi Province**.

Goals:

1. Strengthening food security and livelihoods for coastal communities in the face of climate change
2. Capacity building of coastal community groups in climate change adaptation strategies
3. Strengthening the collaboration of coastal communities and stakeholders in climate change adaptation actions

B. Screening and categorization,

| Risk category | Level of risk | Risk Management |
|--|---------------------|--|
| <u>Access and Equity</u> | <u>Low-Moderate</u> | <ul style="list-style-type: none"> • <u>The process of determining beneficiaries will be carried out in an open and participatory manner</u> • <u>Stakeholders Mapping</u> |
| <i>Marginalized and Vulnerable Groups</i> | Low | <ul style="list-style-type: none"> • Social inclusion on the resource management and activity implementation • Sensitivity of the activity impacts to beneficiaries of the vulnerable groups |
| <i>Gender Equality and Women's Empowerment</i> | Low | <ul style="list-style-type: none"> • Workshop and training activity for women's and youth groups • Gender mainstreaming in all activity by 30% women engaged and participated |
| <u>Core Labour Rights</u> | | <ul style="list-style-type: none"> • <u>Mapping and identification of catchment areas and installation of fish apartments are carried out in a participatory manner. there is a risk of accidents arising from bad weather, insufficient safety equipment, inadequate fleet. These risks will be anticipated through good preparation</u> |
| <i>Conservation on Biological Diversity</i> | Low | <ul style="list-style-type: none"> • Encourage village officials and the community to carry out the process of issuing village regulations related to biodiversity protection through socialization of Biodiversity Protection Village Regulation Urgency. For example, turtle protection regulations in Tonyaman Village. • Facilitating the Village Regulation Making Process of Biodiversity Protection • Facilitating the process of UKL-UPL for Climate Adaptive Tourism Development document issuing. |

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Environmental and Social Management Plan (ESMP)

| Environmental and Social principles Adaptation Fund Policy | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|--|---|--|
| <i>Compliance with the Law</i> | The project implementation will ensure that all activities comply with the law, and in principle, the project implementer will ensure that all licensing components follow the applicable regulations. Every permit will follow the regulations written in Part II - D & E on this project concept note. Therefore, there are no risks and negative impacts arising from the project, so no further assessment is required | None |
| <i>Access and Equity</i> | The project does not hinder access to basic health services, clean water and sanitation, energy, education, housing, safe and decent working conditions, and land rights. The project also does not exacerbate existing inequities, particularly concerning marginalized or vulnerable groups. The project has been designed not to impede any group's access to the essential services and rights stated in principle and herefore does not require further compliance assessment | <ol style="list-style-type: none"> 1. At the output of the catchment area map and the new catchment area through the apartment can be fully accessed by fishermen. The potential risk that will occur is competition for fishing with large fishermen or industry in the catchment area 2. there is a limited number of floating net cages in each village which is adjusted to the ecosystem conditions. This risks causing social jealousy from people who are not the direct beneficiaries. open arrangements are needed regarding the appropriate beneficiaries. 3. There is a risk that fishermen depend on traders in the form of debt or something like that. This has the risk of reducing fishermen's participation in food home development activities and product diversification. |
| <i>Marginalized and Vulnerable Groups</i> | Further assesment is needed | The project that will be implemented will not harm vulnerable groups in fact this project will target vulnerable groups as direct beneficiaries. However, there is no detailed data on vulnerable groups at the target locations. For this reason, further assessment is required |
| <i>Human Rights</i> | The project will respect and, if possible, promote international human rights. Promoting human rights will be achieved by creating awareness with everyone involved in the project, including planning, implementation, monitoring, and evaluation. The International Declaration of Human Rights became the guiding principle for the entire project. So, it does not require further assessment of compliance | None |
| <i>Gender Equality and Women's Empowerment</i> | Further compliance assessment is needed | The project is designed to comply with the principles of gender equality. Men and Women will certainly have the same opportunity to be involved in the project. Each project structure and activity carried out will involve as much as 30%. Women's empowerment will have its own activities that have been designed in the project. However, it is very important to know to what extent women's groups have been involved in empowerment programs implemented by local governments and to what extent women's groups have been involved in decision-making processes at both the family and village levels. So, further compliance assessment is required. |
| <i>Core Labour Rights</i> | The proposed project will meet the required work standards determined by international and national standards. The ILO labor standards are stated in the Declaration of Principles and Fundamental Rights and Rights in 1998. Meanwhile, the National standards follow the fulfillment of rights for workers such as health insurance, work safety, and others. Thus, the project will incorporate the core ILO labor standards in the design and implementation of the project or program and create awareness among all involved on how these standards are applied. Apart from that, this project will also follow Law No. 11 of 2020 concerning Cipta Kerja, which includes how employment is regulated. The entire program is not related to violations of core labor rights, so no further assessment is required | <ul style="list-style-type: none"> • The proposed project will meet the required work standards determined by international and national standards. The ILO labor standards are stated in the Declaration of Principles and Fundamental Rights and Rights in 1998. Meanwhile, the National standards follow the fulfillment of rights for workers such as health insurance, work safety, and others. Thus, the project will incorporate the core ILO labor standards in the design and implementation of the project or program and create awareness among all involved on how these standards are applied. Apart from that, this project will also follow Law No. 11 of 2020 concerning Cipta Kerja, which includes how employment is regulated. • Mapping and identification of catchment areas and installation of fish apartments are carried out in a participatory manner. there is a risk of accidents arising from bad weather, insufficient safety equipment, inadequate fleet. These risks will be anticipated through good preparation. |

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| <i>Indigenous Peoples</i> | The proposed project in the target location does not have any indigenous peoples, so no further assessment is required | None |
| <i>Involuntary Resettlement</i> | In the target location project , there are no activities to move houses, loss of assets or access that lead to sources of income or livelihoods of the community, public facilities. So, no further assessment is required. | None |
| <i>Protection of Natural Habitats</i> | | Installation of fish apartments and mapping of fishing areas will be adjusted to the conditions at the project site, including suitability for protected areas. This project requires an assessment of the suitability of marine protected areas and fishing areas in accordance with applicable regulations. |
| <i>Conservation of Biological Diversity</i> | | Coastal resilience with this proposal the program not only focuses on human resilience, but also considers appropriate biodiversity. Potential risks: <ul style="list-style-type: none"> - At the target location of the project in one village, namely Tonyaman Village, it is very famous for the potential for turtle conservation, this is very important to ensure biodiversity protection to the community. - The environment and ecosystem towards the construction of tourist facilities in the village area will become tourism. Requirement: <ul style="list-style-type: none"> - It is necessary to strengthen socialization at the village level or the village government must have village regulations to maintain the potential of sea turtles. - Every development of tourism development in the coastal area is important to have a UKL-UPL document |
| <i>Climate Change</i> | The proposed project does not add to its positive contribution to climate change; precisely through this program's so that communities can adapt to the impacts of current climate change. So, there is no further assessment required | None |
| <i>Public Health</i> | There is no risk to public health from program. Program activities will continue to be sure not to put public health and safety in danger state by following the relevant applicable Law and regulation. No further assesment required | - |
| <i>Physical and Cultural Heritage</i> | The proposed project poses no threat to physical and cultural heritage in any selected communities being targeted. so no further assessment is required | None |
| <i>Lands and Soil Conservation</i> | In the implementation of the project there are no activities that damage soil conservation, damage underwater ecosystems, even this project will improve marine ecosystems. so no further assessment is needed | None |

Annex - 3

THE ADAPTATION FUND GENDER POLICY

The IE should consult with stakeholders throughout all stages of the project/programme cycle in a gender responsive and gender equal way. Such gender-informed participatory methods are necessary to tackle the key challenge of underrepresentation of either women or men in consultation throughout all stages of the project/program cycle. Facilitating and actively supporting the increased participation of women as important stakeholders guarantees the inclusion of their often overlooked needs, concerns and abilities in project/programme planning, implementation and monitoring and evaluation.

The following list details some concrete principles, suggestions and recommendations on how gender-responsive participation and consultation can be ensured:

- Consider consulting with male and female beneficiaries/stakeholders both separately and in mixed groups.
- The time and location of consultation meetings is crucial.
- Consider appropriate ways of communication.
- Consider setting minimum quota and progress targets for the participation of women and men in consultation meetings, workshops, or trainings.
- Consider appropriate meeting formats.
- Make a targeted effort to include national women's machineries in consultation efforts such as specialist government ministries for women and youth and gender equality agencies and not just the Designated Authority (DA).

In line with the AF Gender Policy mentioned above and their respective updates, the Safeguards + Gender Management System and the AF Gender Strategy which requires a gender analysis to be carried out in the early, project preparation stage to identify the potential to promote gender equality and the risks to be avoided or at least reduced through certain steps.

The results and recommendations of this analysis are directly considered for the objectives, indicators, methodological approach and system of monitoring project results.

The Gender Assessment Methodology

The implementation of the Gender Assessment (GA) and Gender Action Plan (GAP) uses the following methodology and stages:

- Review of all relevant project documentation, including documentation of regulations and standards to which the project must comply;
- Secondary analysis (existing documentation);
- Information gathering and stakeholder consultation and the three target areas identified by the project and preparation of a stakeholder engagement report;
- Analysis of primary data from the stakeholder engagement process;
- Preparation of GA and GAP.

Stakeholder engagement procedures are carried out after reviewing project documentation and analysis of secondary data. Stakeholder involvement is used as a tool for identifying and mobilizing stakeholders in project implementation. This framework is used to build a transparent two-way Communication/Dialogue between the project and stakeholders (central and local government, individuals, associations, groups), conveying a strong commitment to the Institution as well as stakeholders in understanding and managing needs, interests, fears, and the motivation of stakeholders. Stakeholders, and anticipate potential negative responses from women and men and provide mitigation measures.

The objectives of the stakeholder consultation are defined as follows:

1. Introducing the project;
2. Identification of impacts and mitigation from a stakeholder perspective;
3. Understand stakeholder suggestions and concerns; Gain an initial understanding of the barriers to pro-environmental behavior (what drives current behavior and how communities around watersheds may be motivated to change behavior regardless of logging activities) and an understanding of the socio-economic, cultural and gender barriers associated with the use of stoves and alternative fuels (eg is there a preference for cooking with firewood and what is driving behavior change);
4. Assessment from a gender perspective on the level of population participation in decision-making on community issues and think of effective ways to improve it;
5. Estimation of concern for climate change that occurs and ways to mitigate climate change.
6. Assessment of the gender composition of the two departments/agencies of the Ministry of Environment, Forestry and the Ministry of Women's and Children's Empowerment.

Gender analysis in Project Location

In general, at project locations, the roles of women and men are still in an unfair condition. Women are under pressure and dependent on men, from the aspect of sources of income, household decisions and public space, especially development. The active involvement of women only occurs in social spaces that are similar “gotong royong”, social gathering and recitation.

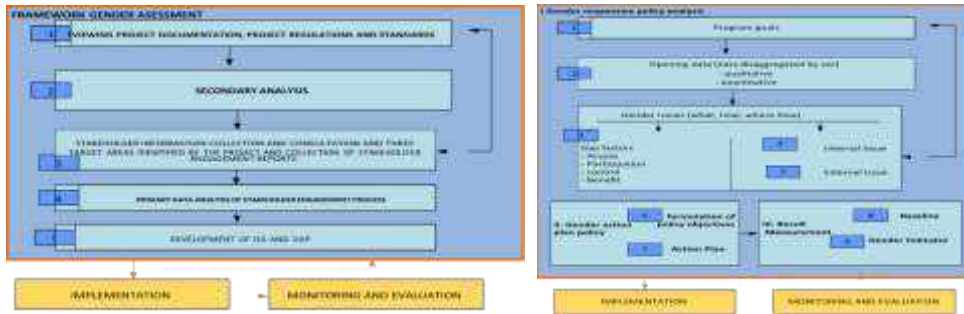
In terms of capability, women tend to be lower, this can be seen from the level of education between men and women. The number of women in coastal communities who have completed high school education is lower than that of men. There are 26 members of the “Bahari Indah” women’s group, and only 3 female members have a high school education, 9 women have junior high school education and 15 women have only graduated from elementary school. This resulted in the majority of women not having the educational capital to compete.

In addition, another pressure experienced by women is early marriage which always places women as objects. In general, West Sulawesi is a province with a high rate of early marriage, which is generally experienced by women. Generally, this marriage is experienced by women to get the family out of the poverty chain, with the hope that men as new family members will act as a new source of income. Therefore, education for women is not considered important to get to a higher level.

In fishermen’s households in the community at the project location, there is a division of roles between men and women. However, the distribution of these roles has not shown equality, women are still dependent on men, especially in terms of sources of income. Men take full control of fishing activities, including assets. The division of roles between wife and husband is clearly visible, where the sea is the realm of men’s work. The main activity of men is fishing. After getting the results, it is usually the woman or wife who sells the catch. During the period when the husband is at sea, the wife stays at home all day taking care of domestic affairs. From the aspect of benefits, it has been felt between women and men. Household income results are discussed to meet family needs evenly.

In public space, women’s role is usually in social activities, such as social gathering, recitation and “Gotong Royong”. Active involvement in the development process is still relatively low. The role of women is often associated only with the provision of consumption for village meetings and administration.

This project will ensure active involvement and equality between men and women, so that the benefits of the project can be felt fairly and equally. Therefore, as an effort to ensure equality between men and women, an in-depth gender assessment is needed at the project site.



Annex 4 Consultative Process

| No | Stakeholder | Topic Consultation | Output | Conclusion |
|----|---|---|--|--|
| 1 | BAPPEDA (Development Planning Agency at Sub-National Level) Provinsi Sulawesi Barat - 21/07/2022 | <ul style="list-style-type: none"> To obtain information about the plans of the government in response to climate change adaptation, especially for coastal village communities in West Sulawesi Province To obtain data and information about the coastal area management area in West Sulawesi. | <ul style="list-style-type: none"> Confirmation of approval and support by the governor of West Sulawesi regarding the draft proposal to be submitted. | <ul style="list-style-type: none"> The Blue Line Consortium obtained substantial information from BAPPEDA of West Sulawesi Province and is committed to supporting this activity. |
| 2 | Head of the Department of Environment and Head of the Department of Fisheries and Maritime Affairs of West Sulawesi Province 7/07/2022: | <ul style="list-style-type: none"> To inform about the intention of the Blue Line Consortium to make several locations in the province of West Sulawesi as locations for climate change adaptation projects funded by the Adaptation Fund. | <ul style="list-style-type: none"> Guiding the consultation process carried out in involving the district government and multistakeholders; with BAPPEDA West Sulawesi. | <ul style="list-style-type: none"> The Head of the West Sulawesi Province Environment and Maritime Affairs and Fisheries Service fully understands and supports the concept of the Blue Line Consortium's climate change adaptation proposal for the Adaptation Fund with a focus on strengthening climate resilience in coastal villages in West Sulawesi. |
| 3 | Head of Maritime Affairs and Fisheries Service, Majene Regency, West Sulawesi - 20/06/2022 | <ul style="list-style-type: none"> To inform about the intention of the Blue Line Consortium to make the location of a coastal village in Majene Regency a project location for a climate change adaptation project funded by the Adaptation Fund To obtain data, information and also initiatives that have been carried out in climate change adaptation in Majene Regency. | <ul style="list-style-type: none"> Maritime Affairs and Fisheries Office of Majene Regency assisted the Garis Biru Consortium in obtaining approval regarding the support of the proposal concept for submission of proposals to the Adaptation Fund | <ul style="list-style-type: none"> The activities that will be proposed in the draft proposal must be synergized with the programs and activities that will be implemented by the Regional Government of Majene Regency. |
| | Bupati Majene (periode 2021-2024) – 11/07/2021: | <ul style="list-style-type: none"> Obtain formal approval from the District Head of Majene for the draft proposal submitted by the Blue Line Consortium through Kemitraan. | <ul style="list-style-type: none"> In principle the District Head understands well and provides official support and fully supports the concept of a climate change adaptation proposal from the Blue Line Consortium for submission of a proposal to the Adaptation Fund. | <ul style="list-style-type: none"> Approval by the District Head of Majene for the Blue Line Consortium proposal concept through Kemitraan and his support for project development and implementation. |
| | Head of the "Bahari Indah" Business Partner Group in the Village of Tonyaman - 4/06/2022 | <ul style="list-style-type: none"> To obtain information on the conditions of social, gender, cultural and community institutions in the village | <ul style="list-style-type: none"> A clearer picture of the condition of the village area. The division of the roles of men and women in coastal communities Information about business group activities carried out by fishermen's wives in the village of Tonyaman. | <ul style="list-style-type: none"> Direct observation in the Tonyaman village area Village community support for the Consortium's activity plan for village communities. |
| | Head of the Turtle Friends Community 5/06/2022 | <ul style="list-style-type: none"> To obtain information about the impact of climate change, especially on Mampie Beach, Galeso Village; activities that have been carried out, both in collaboration with the government and CSOs; mitigation activities; conditions of affected communities, especially in the coastal area of Galeso village, Polewali Mandar district. | <ul style="list-style-type: none"> Based on monitoring, from 2000 - 2022 there has been a change in the coastline as a result of abrasion on the Mampie beach, the worst abrasion occurred in 2013 and so on until now. Mampie Beach is a turtle nesting habitat but abrasion that has occurred over the past two decades has resulted in a decline in turtle nesting habitats from year to year | <ul style="list-style-type: none"> Direct observation in the Galeso village area which was affected by abrasion. Support from the Galeso village community and the Sahabat Turtles Community for the planned activities by the Blue Line Consortium. |