

Funding Proposal

SAP070: Building Flood Resilient Community through Adaptive Livelihood and Runoff Management in Petanglong Area of Central Java Province of Indonesia (BRAVE)

Indonesia | Kemitraan bagi Pembaruan Tata Pemerintahan (Kemitraan) | Decision B.45/08

23 July 2026



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This section highlights some of the project's or programme's information for ease of access and concise explanation of the funding proposal.

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This section focuses on describing the context of the project/programme, providing details of the project/programme including components, outputs and activities, and implementation arrangements.

Section C FINANCING INFORMATION

This section explains the financial instrument(s) and amount of funding requested from the GCF as well as co-financing leveraged for the project/programme. It also includes justification for requesting GCF funding and exit strategy.

Section D EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

This section provides an overview of the expected alignment of the projects/programme with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

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This section provides a list of mandatory documents that should be submitted with the funding proposal as well as optional documents and references as deemed necessary to supplement the information provided in the funding proposal.

Notes to accredited entities on the use of the SAP funding proposal template

- The Simplified Approval Process Pilot Scheme (SAP) supports projects and programmes with a GCF contribution of up to USD 25 million with minimal to no environmental and social risks. Projects and programmes are eligible for SAP if they are ready for scaling up and have the potential for transformation, promoting a paradigm shift to low-emission and climate-resilient development.
- This template is for the SAP funding proposals and is different from the funding proposal template under the standard project and programme cycle. Distinctive features of the SAP funding proposal template are:
 - *Simpler documents*: key documents have been simplified, and presented in a single, up-front list;
 - *Fewer pages*: A shorter form with significantly fewer pages. The total length of funding proposals should **not exceed 20 pages**, annexes can be used to provide details as necessary;
 - *Easier form-filling*: fewer questions and clearer guidance allows more concise and succinct responses for each sub-section, avoiding duplication of information.
- Accredited entities can either directly incorporate information into this proposal, or provide summary information in the proposal with cross-reference to other funding proposal documents such as project appraisal document, pre-feasibility studies, term sheet, legal due diligence report, etc.
- Submitted SAP Pilot Scheme funding proposals will be disclosed simultaneously with submission to the Board, subject to the redaction of any information which may not be disclosed pursuant to the [GCF Information Disclosure Policy](#).
- For more information on how to develop Funding Proposals under the SAP please refer to the [Simplified Approval Process \(SAP\) Funding proposal guidelines](#).

Please submit the completed form through the GCF Digital Proposal Submission Platform (DPS)¹

A. PROJECT/PROGRAMME SUMMARY

A.1. Has this FP been submitted as a SAP CN before?		Yes ☒ No ☐			
A.2. Is the Environmental and Social Safeguards Category C or I-3?		Yes ☒ No ☐			
A.3. Project or programme	<i>Indicate whether this FP refers to a combination of several projects (programme) or one project.</i> ☒ Project ☐ Programme	A.4. Public or private sector	☒ Public sector ☐ Private sector	A.5. RfP	Not applicable
<i>Check the applicable GCF result area(s) that the overall proposed project/programme targets. For each checked result area(s), indicate the estimated percentage of GCF and Co-financers' budget devoted to it. The total of the percentages when summed should be 100% for GCF and Co-financers' contribution respectively.</i>					
			GCF Contribution	Co-financers' contribution²	
Mitigation total			Enter number %	Enter number %	
☐ Energy generation and access			Enter number %	Enter number %	
☐ Low emission transport			Enter number %	Enter number %	
☐ Buildings, cities and industries and appliances			Enter number %	Enter number %	
☐ Forestry and land use			Enter number %	Enter number %	
Adaptation total			Enter number %	Enter number %	
☒ Most vulnerable people and communities			68.3 %	88.6%	
☐ Health and well-being, and food and water security			Enter number %	Enter number %	
☐ Infrastructure and built environment			Enter number %	Enter number %	
☒ Ecosystem and ecosystem services			31.7 %	11.4 %	
A.7.1. Expected mitigation outcome (Core indicator 1: GHG emissions reduced, avoided or removed / sequestered)	The project is focused on adaptation outcomes, so the mitigation outcome is not estimated.		A.7.2 Expected adaptation outcome (Core indicator 2: direct and indirect beneficiaries reached)	Direct beneficiaries 136,360 people, male: 81,816, female: 54,544) The population of Indonesia is 285,721,245. The Petanglong area of Central Java, covering	Indirect beneficiaries 1,203,347 people, male: 597,596, female: 605,751 Direct beneficiaries: ±6.9% of total Petanglong population or 0.05% of

¹ See the [DPS user guide](#) for further information on how to access and submit proposals.

² Co-financer's contribution means the financial resources required, whether Public Finance or Private Finance, in addition to the GCF contribution (i.e. GCF financial resources requested by the Accredited Entity) to implement the project or programme described in the funding proposal.

			Pekalongan City, Pekalongan Regency, and Batang Regency. The total population of this area is 2,202,087 ³	Indonesia Population Indirect beneficiaries: ±54.65% of total Petanglong population or ±0.4% of total Indonesia population
A.8.1. Total investment (GCF + co-finance⁴)	Amount: 9,999,881	A.8.2 Total GCF funding requested (max USD 25M)	Amount: 9,310,960	
A.9. Type of financial instrument requested for the GCF funding	Mark all that apply. ☒ Grant ☐ Loan ⁵ ☐ Equity ☐ Guarantees ☐ Others:			
A.10. Implementation period (months)	60 months	A.11. Total project/ programme lifespan (years)	15 years The project framework and recommendations are expected to be mainstreamed into the spatial plan policies, in which the spatial plan period of the local government is ended in 2040. The lifespan can be longer if the government further sees the need to continue the implementation of such a framework. If we consider the livelihood model perspective (the closed-loop system), the lifespan could reach around 20-25 years.	
A.12. Expected date of internal approval	03 November 2025	A.13. Has Readiness or PPF support been used to prepare this FP?	Yes ☒ No ☐	
A.14. Is this FP included in the entity work programme?	Yes ☒ No ☐	A.15. Is this FP included in the country programme?	Yes ☒ No ☐	
A.16. Executing Entity information	The executing entity is Yayasan Mercy Corps Indonesia (MCI) and Perkumpulan Kemitraan, both as a non-government organization with vast project portfolios in climate adaptation and resilience, as well as economic development across different areas in Indonesia. Kemitraan also as the project's Accredited Direct Access Entity (DAE), will have a supervisory and monitoring role in the project. MCI had undergone Kemitraan's Due Diligence assessment process and was deemed as having the capacity to execute the project.			
A.17. Scalability and potential for transformation (max. 100 words)				

³ According to Official mid-year Census of Indonesia (2024) [Provinsi Jawa Tengah Dalam Angka 2024 - Badan Pusat Statistik Provinsi Jawa Tengah](#)

The BRAVE project builds on ongoing initiatives by the MCIs/Zurich Flood Resilience Alliance (now Zurich Climate Resilience Alliance/ZCRA⁶) and Kemitraan's Adaptation Fund (AF) project⁷, addressing their limitations while amplifying successful approaches. ZFRA's resilient livelihood models in 8 villages of Pekalongan have demonstrated the economic and environmental benefits of climate-smart agriculture and adaptive aquaculture. However, the pilot was geographically limited and lacked enabling policy and financial systems, necessary for replication and scale. BRAVE builds on these achievements by expanding resilient livelihood practices to new communities across the Kupang and Sengkarang watersheds, embedding proven business models into resilient value chains, and institutionalizing Integrated Water Resource Management (IWRM) across jurisdictions to address upstream, midstream, and downstream drivers of flood risk. At the same time, BRAVE strategically leverages lessons from the AF project which focuses on downstream interventions by applying a holistic landscape perspective, integrating upstream and midstream interventions that reduce pressures on downstream areas. The project also explores potential linkages with ZFRA and AF livelihood interventions, ensuring economic sustainability, while capitalizing on MCI/ZFRA and Kemitraan's established partnerships with local, provincial, and national governments to mainstream climate-resilient and IWRM frameworks.

The project achieves a paradigm shift through three mechanisms:

- **Community empowerment:** translating climate data into actionable knowledge, establishing impact-based forecasting, and embedding Climate-Resilient Livelihood Transformation Plans into Village Development Plans transforming communities from passive recipients into proactive climate risk managers.
- **Systemic governance change.** By institutionalizing Integrated Water Resource Management (IWRM) across jurisdictions and mainstreaming landscape resilience into at least five local and provincial policies, BRAVE shifts governance from fragmented, reactive responses to integrated, preventive climate action.
- **Market and finance transformation:** closed-loop agriculture models, bundled service schemes, and private sector partnerships de-risk investment, incentivize MSMEs, and opens climate finance pathways, ensuring sustainability beyond grant support.

Through this multi-level integration of knowledge, governance, and market systems, BRAVE catalyzes long-term, self-sustaining resilience pathways aligned with low-emission, climate-resilient development.

A.18. Project/Programme rationale, objectives and approach (max. 300 words)

Climate rationale of the project/programme.

The Petanglong area of Central Java, covering Pekalongan City, Pekalongan Regency, and Batang Regency, faces severe and worsening flood risks due to a combination of climate change, sea level rise, land subsidence, and watershed degradation. Current flood events already cause extensive infrastructure damage, land loss, and livelihood disruption, with annual economic losses in Kupang watershed area in 2020 estimated at USD 110.7 million (over 40% of the combined local budgets). Based on climate impact assessments, there is a high likelihood of more frequent extreme rainfall, increased consecutive wet days, sea level rise of 5 mm/year, and land subsidence with a medium rate of up to 16.5cm/year, leading to a near-tripling of inundated areas from 1,800 ha (2020) to 5,700 ha (2035). It has been estimated that flood hazards will extend inland up to 9.4 km, submerging 90% of mangroves and large areas of settlements, aquaculture, and agriculture. Compounding these risks, dry season rainfall is expected to decline, further threatening water supply, agriculture, and community resilience in the upland areas. BRAVE aims to strengthen climate resilience across the Kupang and Sengkarang watersheds through a holistic, source-to-sea landscape approach. Its purpose is to reduce climate-induced flood and water risks while enhancing resilient livelihoods.

Within this context, several village clusters across the Kupang and Sengkarang watershed area of Petanglong have been identified as potential intervention areas, reflecting different physical characteristics and climate risk profiles.

The coastal clusters that comprise of West Coastal (Api-api, Pecakaran), Central Coastal (Jeruksari, Bandengan), and East Coastal (Krapyak, Degayu, Klego) are lowland aquaculture areas highly exposed to sea level rise, coastal flooding, land subsidence, and permanent inundation, with high to very high exposure and vulnerability. These hazards result in asset losses, declining income, and reduced land productivity, with estimated economic losses reaching USD 121.87 million in Central Coastal, USD 9.42 million in West Coastal, and USD 3.43 million in East Coastal. Interventions focus

⁴ Refer to the Policy on Co-financing of the GCF.

⁵ Senior loans and subordinated loans.

⁶ [Indonesia - Zurich Climate Resilience Alliance](#) and [Zurich Climate Resilience Alliance \(ZCRA\) | Mercy Corps Indonesia](#)

⁷ [Adaptation Fund Project – Pekalongan - KEMITRAAN](#)

on adaptive aquaculture practices, climate information systems, climate-smart field schools, value-added aquaculture models, women-led adaptation initiatives, and closed-loop aquaculture systems to strengthen livelihood resilience.

The Urban Settlement cluster (Tirto, Buaran Kradenan) and SME Center cluster (Kuripan Yosorejo, Kuripan Kertoharjo, Jenggot, Sokoduwet) face flash flooding and land subsidence, with estimated economic losses of USD 25.93 million and USD 12.09 million, respectively. Interventions prioritize community resilience action plans and community-based climate information systems to improve flood preparedness and anticipatory action.

Further inland, the agricultural, water catchment, and upstream clusters including areas such as Karanganyar, Warungasem, Wonotunggal, Blado, and Petungkriyono, are characterized by hilly to mountainous landscapes exposed to flash floods, drought, extreme rainfall, landslides, and erosion, which threaten agricultural productivity and ecosystem stability. Interventions emphasize blue-green space development, climate-smart agriculture, agroforestry and land conservation, climate information systems, and anticipatory action planning to reduce watershed risks and strengthen climate-resilient livelihoods. The detailed climate rationales for each specific location is provided in Annex 17

Climate results of the project/programme

- **Reduced vulnerability to floods and droughts:** Blue-green spaces, flood contingency plans, and climate-smart land and water management will directly protect and provide adaptation benefits to 135,196 people from flood risks and water scarcity.
- **Strengthened ecosystems:** Restoration and improved management of 3,700 hectares of productive upstream land, floodplains, and vegetative buffers will enhance water regulation, reduce runoff, and maintain biodiversity. Approximately 14,160 people will receive adaptation benefits from soil and water conservation, upstream land management, and participatory conservation plans.
- **Resilient livelihoods:** Climate-smart agriculture and aquaculture practices will improve productivity and income for 1165 people. Linking farmers and MSMEs to markets and finance will further scale such practices and improve adoption.
- **Gender-responsive adaptation:** Around 40% of direct beneficiaries for activities related to training will be women, with deliberate inclusion of vulnerable groups in decision-making and specific livelihood activities for women's groups.
- **Long-term scalability:** Institutionalized climate-informed planning, policy adoption, and market systems will enable replication beyond the project area, indirectly benefiting approximately 1,203,347 people across Pekalongan City, Pekalongan Regency, and Batang Regency.

Rationale for the use of GCF funding. Despite strong government recognition of climate risks, financing remains insufficient and heavily focused on structural flood defenses, leaving preventive, ecosystem-based, and livelihood-centered interventions underfunded. Budget cuts following the 2025 Presidential Instruction have further constrained provincial and local resources, with local governments also lacking the technical and institutional capacity to translate climate science into actionable plans, and private investors remain hesitant to support innovative livelihood models. GCF funding is critical to de-risk and demonstrate ecosystem and livelihood-based approaches, fill data and capacity gaps for evidence-based planning and unlock co-financing by validating climate-resilient business models.

B. PROJECT/PROGRAMME DETAILS

B.1. Context and baseline (max. 500 words)

B.1.1 The baseline scenario: current and future climate projections

Located in Central Java Province, Indonesia, the Petanglong area, covering Pekalongan City, Pekalongan Regency, and Batang Regency, with a population of over 2 million⁸, faces persistent and worsening flood risks. Flooding results from a combination of intense rainfall, land-use and river morphology changes, and tidal influences⁹. The coastal zone is particularly exposed: Pekalongan has experienced sea level rise of 5 mm per year, above the Java Sea average of

⁸ Central Java Province Bureau of Statistics, 2021. *Central Java Province in Number Year 2021*. Central Java Province

⁹ Pasarihu, M, Kumar Hazarika M, Nashrullah S, Hazarika MK, Samarakoon L. 2013. Study on Flood Inundation in Pekalongan, Central Java. *Int. J. Remote Sens. Earth Sci.* 10(2):76–83. Available on: <https://www.researchgate.net/publication/270435267>

3.9 mm, alongside rapid land subsidence of 10–17 cm annually between 2012 and 2018¹⁰. These compounded processes make the area exceptionally vulnerable to inundation¹¹. Recurrent floods have caused severe infrastructure damage, permanent land loss, and disruption of livelihoods, while also straining municipal budgets. The interaction of coastal change with upstream and midstream watershed developments has further increased the scale and complexity of flood events. Climate change is expected to intensify these dynamics, amplifying both physical impacts and socio-economic costs. To better understand the impacts of climate change, the drivers of flooding, their interactions, and the area's capacity to respond, the MCI's Zurich Flood Resilience Alliance (ZFRA) program conducted a Landscape Climate Risk and Impact Assessment (CRIA) of the Kupang watershed (covering Pekalongan City and Regency). The CRIA provides the scientific foundation for assessing climate risks and guiding adaptation planning. It includes decadal and long-term climate projections, hazard and flood modelling, vulnerability and risk assessments, and analysis of both economic and non-economic losses. These findings form the evidence base for identifying appropriate response measures for the BRAVE project and underpin the rationale for GCF support. For a summary of the findings of the Climate Risk and Impact Assessment (see Annex 15).

The CRIA results show that the upstream areas of the Kupang watershed are projected to experience more frequent and intense extreme rainfall, while the midstream and downstream zones will face more frequent but less intense events. Rainfall anomaly analysis confirms a long-term trend toward Above Normal conditions, increasing the likelihood of flash floods cascading downstream if no preventive measures are taken. Projections under the RCP4.5 scenario suggest that Pekalongan will become significantly wetter, with higher rainfall intensity in both upstream and coastal areas. This underscores a rising probability of extreme rainfall in coastal zones, compounding existing flood risks. Under the RCP8.5 high-emission scenario, the number of Consecutive Wet Days is expected to rise by 40%, while Consecutive Dry Days remain relatively stable. Climate variability combined with sea level rise is projected to significantly amplify flood risks across the Kupang watershed and the wider Petanglong area.

Spatial modelling indicates that the inundated area will expand nearly threefold, from 1,800 ha in 2020 to 5,700 ha by 2035. The proportion of villages/kelurahans with a very high hazard index is expected to rise from 10% in 2020 to almost 40% by 2035. Ecosystems and land use will be severely affected: over 90% of mangroves, bushland, and parkland are projected to be permanently submerged, alongside more than half of settlements, fishponds, open land, and industrial zones. The inland extent of flooding will increase sharply, from 4.2 km in 2020 to as far as 8.5 km (decadal prediction) and 9.4 km (RCP4.5 projection) by 2035. The CRIA's decadal predictions show that the number of high-risk villages in the watershed will grow from 36 in 2020 to 58 by 2035, while those at very high risk will more than double, from 17 to 35. The situation will be especially severe in Pekalongan City, where by 2035 every kelurahan will face high or very high flood risk, compared to around 65% in 2020. These findings highlight not only the accelerating scale of physical inundation but also the escalating social, ecological, and economic risks, underscoring the urgent need for transformative adaptation measures that go beyond incremental responses. Without adaptation measures, flood risks and related economic losses in Pekalongan will escalate sharply. The evidence provides a strong scientific justification for GCF support to finance enabling market system development, ecosystem restoration, and community-based adaptation, interventions that local governments alone lack the fiscal capacity to implement.

Decadal projections indicate a significant decline in rainfall during the dry season, which will directly affect the quantity and continuity of water supply. Reduced rainfall will not only constrain domestic water availability but also undermine agriculture and agroforestry productivity. To adapt, water infrastructure must be technically designed to accommodate variability in supply, while farmers need timely climate information and the capacity to translate it into appropriate agricultural practices. The impacts are already visible. In 2020, the state-owned water utility company was only able to serve 40% of Pekalongan City's population and 11% of Pekalongan Regency's population¹². Service reliability remains a major concern, with minimal and intermittent supply during the dry season. This demonstrates the vulnerability of the watershed's current water management system to climate variability.

The Kupang and Sengkarang watersheds, two of Petanglong's major catchments, are under mounting pressure from land use change and unsustainable livelihoods. These pressures, combined with projected climatic shifts, are expected to exacerbate flood risks and water stress. Forest plantations and surrounding settlements have expanded steadily, driving deforestation, land degradation, reduced catchment capacity, river pollution, and

¹⁰ Kismawardhani, Ratu & Wirasatriya, Anindya & Berlianty, Dessy. 2018. Sea Level Rise in The Java Sea Based on Altimetry Satellites Data Over 1993-2015. IOP Conference Series: Earth and Environmental Science. 165. 012006. 10.1088/1755-1315/165/1/012006

¹¹ Tempo.2019. Penurunan Tanah Terparah Peneliti ITB Save Pekalongan. <

<https://tekno.tempo.co/read/1284106/penurunan-tanah-terparah-peneliti-itb-save-pekalongan>> [accessed 1 July 2021].

¹² Pekalongan City Bureau of Statistics, 2020. Pekalongan City in Number Year 2020. Pekalongan City
Pekalongan Regency Bureau of Statistics, 2020. Pekalongan Regency in Number Year 2020. Pekalongan Regency

sedimentation. Satellite imagery analysis, as part of the CRIA, shows that between 2000 and 2021, about 23% (5,080 hectares) of forested land, mainly production forest, was lost, with major conversion occurring in 2000–2012 and 2015–2020, largely due to logging followed by horticulture. The Pemali Jratun Watershed and Protected Forest Management Agency reports that around 21% of the Kupang and Sengkarang watersheds, critical sources of raw water supply for the state-owned utility, are now in an ecologically critical state. Reduced land cover has diminished the ecosystem's capacity to retain and regulate water, altering infiltration and runoff rates. These changes underscore the urgent need for improved land management and effective runoff control infrastructure in the upstream and midstream zones to stabilize water flows and safeguard supply. They also highlight the critical need for a watershed wide approach.

A detailed climate rationale study will be examined during the implementation of the BRAVE project, as part of the detailed study and climate modelling activities. Considering that Kupang and Sengkarang watersheds directly border each other, there will be no significant variability in the climate characteristics of the two watersheds. The BRAVE project will create a climate model that covers both areas. In addition, existing productivity gain data from target value chains that resulted out of the ZFRA programme will be replicated by the BRAVE project.

B.1.2 Climate change impacts and adaptation needs

The scale of impact on downstream communities is substantial and escalating over time. Downstream communities have regularly had to deal with losses and damage to their assets and productive land, from flooding and permanent inundation. Damage to infrastructure has driven up basic need's expenses, with house repairs and increasing the floor height becoming regular expenses for high-risk communities. Impact analysis conducted as part of CRIA on 42 villages identified as having the highest risk revealed that the total annual economic loss from the impact of flooding was around USD110.7 million in 2020, which is more than 40% of the combined total annual budget of Pekalongan City and Regency. For the local government, increasing road height and other flood-related costs have become a regular occurrence. The disbursed budget has been insufficient to comprehensively address the issue. Combined with flood impacts on income reduction and the loss of productive land, which was estimated to be around USD 24 million¹³, has left the flood-affected population in an increasingly precarious position. Factoring in the projected flood risks, the losses are predicted to significantly increase to USD2.2 billion per year by 2035 in Kupang watershed only (more than twelve-fold the baseline state in 2020)¹⁴¹⁵¹⁶, this substantial increase in losses will extremely affect their development activities.

The CRIA also identified the upstream areas of Petanglong as highly vulnerable due to greater exposure to climate hazards, topographic changes, and expanding settlements. In the absence of climate literacy, farmers have adapted through agricultural expansion, heavy chemical fertilizer use, and a shift from food crops to horticulture. These unsustainable practices have degraded ecosystems, caused pollution, and driven land use change, with cascading impacts on midstream and downstream flood risks. Reducing vulnerability will require better land management, controlling agricultural and settlement expansion, promoting resilient agricultural practices, and strengthening forest rehabilitation and protection. Importantly, adaptation must address not only flood risks from extreme rainfall, but also droughts that threaten water supply across Pekalongan City and Regency. The interdependence between upstream, midstream, and downstream zones underscores the need for a holistic, landscape-based approach to policy and flood risk management. Current watershed mismanagement amplifies climate risks, requiring interventions tailored to the characteristics and vulnerabilities of each segment. This includes managing land conversion pressures, strengthening adaptive capacity, and reducing sensitivity and exposure, particularly in areas with high and very high vulnerability. Alongside risk reduction infrastructure, ecological functions must be restored and protected, especially coastal mangrove ecosystems, which provide vital physical, biological, and economic services for resilience. Vulnerability is further shaped by social dynamics: around half of the Kupang and Sengkarang watershed population are women, while 31% are children and elderly with limited adaptive capacity. Experience from resilient livelihood activities in ZCRA shows persistent gender gaps in agriculture and aquaculture, where men dominate decision-making and resource access, particularly in downstream areas. Addressing these inequities through inclusive capacity building and livelihood diversification will be essential to strengthen community-wide resilience.

B.1.3. National and provincial policies that support the BRAVE Project

¹³ Mercy Corps Indonesia, 2020. Climate Risk and Impact Assessment of Kupang Watershed and Coastal Area of Pekalongan City and Regency

¹⁴ Mercy Corps Indonesia, 2020. Climate Risk and Impact Assessment of Kupang Watershed and Coastal Area of Pekalongan City and Regency

¹⁵ Mercy Corps Indonesia, 2023. Regional Climate Budget Tagging for Pekalongan City

¹⁶ Mercy Corps Indonesia, 2023. Regional Climate Budget Tagging for Pekalongan Regency

The proposed project will align with the current policies of the Government of Indonesia and also fill the gaps in integrated water resource management (IWRM) and livelihood adaptation. The project will take a source-to-sea landscape framing and a multi-sector approach, which is aligned with Indonesia's 2nd Nationally Determined Contribution that sees comprehensive land-based climate change adaptation efforts as critical consideration to achieve climate resilience in food, water, and energy. It emphasizes adaptation through three resilience pillars: economic resilience, social and livelihood resilience, and ecosystem and landscape resilience. The BRAVE Project also has high relevance to National Adaptation Policies (NAPs). Under NAPs, our project falls under climate resilience policies, specifically sectoral adaptation (highly relevant to Water Security and Ecosystem Security, with moderate relevance to Food Security). Meanwhile, its relevance to the Cross-Sectoral Adaptation Portfolio encompasses economic resilience, social and livelihood resilience, and ecosystem and landscape resilience. For in-country policy framework, the National Policy on Climate Resilient Development (PBI), one of the implementing instruments of the RPJMN 2020-2024¹⁷ and the upcoming period of 2025-2029 (mainly on National Priority on Building Environment, Increasing Disaster and Climate Resilience), identifies Pekalongan City, Pekalongan Regency, and Batang Regency as a super-priority and top priority areas for climate resilience activities in the agriculture sector, water sector, and also marine and coastal sector. The policy sees a multi-dimensional (technology, infrastructure, capacity building, and also governance and financing dimension) approach as the key to climate-resilient development, with inclusivity and ecosystem preservation as overarching aspects. These key sectors and multi-dimension approaches are in line with the needs and concerns related to flood resilience building in the Petanglong area. Presidential Regulation No.79/2019 further places Petanglong as an area where economic development needs to be advanced to support the growth of the Central Java economy. However, projects outlined in the Decree focus on structural flood protection measures, with little attention on water resource management, livelihood improvement, and climate-induced flood risk reduction. The Central Java government, through their Petanglong Program, aims to fill this gap by focusing on integrated transboundary water resource management, agroforestry, and livelihoods.

B.1.4. Problem statement, root causes and barriers to action

Problem Statement.

The Petanglong area in Central Java, covering Pekalongan City, Regency, and Batang Regency, faces declining resilience of communities, livelihoods, and watershed systems to increase climate-related water risks. Local populations depend on climate-sensitive sectors such as agriculture and aquaculture, yet their capacity to cope with flooding and water variability remains limited. Intensifying rainfall, land subsidence, sea level rise, and watershed degradation are amplifying these vulnerabilities. By 2035, inundated areas are projected to triple, affecting settlements, agriculture, and industrial lands, while water supply during the dry season remains unreliable. Deforestation, land degradation, and unsustainable agricultural practices upstream have reduced water retention, increased runoff, and intensified downstream impacts. Despite government commitment, multiple systemic barriers hinder climate-resilient development:

- **Limited climate knowledge and capacity:** Communities and farmers lack access to climate information and also resilient farming and adaptive aquaculture methods. Local government officials have insufficient expertise in climate risks, integrated watershed management, and long-term planning.
- **Economic and market constraints:** Short-term economic incentives and high vulnerability among poor farmers and fish farmers discourage adoption of sustainable practices. Market mechanisms rarely reward climate-resilient production: buyers typically prioritize volume and price rather than sustainability or risk reduction, and certification or premium markets remain inaccessible to most small producers. Policy incentives for sustainable practices are also limited or inconsistently implemented, providing little economic signal to shift production systems toward more resilient approaches. Financial institutions perceive smallholder agriculture and aquaculture as high risk due to climate variability, limited collateral, and irregular income streams. As a result, available credit products are often short-term, require formal guarantees, or carry interest rates that are unaffordable for small producers. This limits investment in practices such as improved water management, resilient crops, and sustainable aquaculture systems. At the same time, fragmented value chains and weak producer organizations reduce bargaining power and market access, further constraining incentives to adopt climate-resilient production models.

¹⁷ The RPJMN 2020–2024 (Rencana Pembangunan Jangka Menengah Nasional) is Indonesia's National Medium-Term Development Plan, established through Presidential Regulation No. 18/2020. It serves as a strategic framework for the nation's development over five years, aligning with the Long-Term Development Plan (RPJPN 2005–2025) and the President's vision for 2045.

- **Institutional and governance challenges:** Fragmented policies across agriculture, forestry, water, and climate sectors—combined with limited cross-sector and transboundary coordination—constrain integrated, long-term flood and climate risk management. Although national regulations (MoHA Regulation No. 114/2014 and MoV Regulation No. 16/2025) mandate climate-resilient village development, actual integration of climate risks into village planning remains limited. Village governments often lack the technical capacity to interpret climate information, with relevant data fragmented and not easily accessible at the village scale, resulting in untargeted interventions. Budget constraints further reinforce a preference for short-term infrastructure over long-term adaptation measures that deliver slower, future-oriented benefits.
- **Social and cultural factors:** Women, children, the elderly, and smallholder farmers/fish farmers, who make up a significant portion of the population, have limited decision-making power, minimal access to information, and face cultural barriers to adopting new practices. Flood preparedness plans are largely absent in high-risk areas¹⁸ where the high-risk community is also identified as having a low-flood risk perception¹⁹.

These root causes and barriers reinforce a cycle of environmental degradation, water scarcity, and socio-economic vulnerability. Addressing these root causes requires a holistic approach: strengthening watershed management, promoting climate-resilient agriculture and adaptive aquaculture, improving surface runoff management, restoring degraded ecosystems, providing access to financial products and markets, and enhancing the capacity and inclusion of vulnerable populations. These interventions must be accompanied by economic incentives, integrated policies, and participatory governance to ensure long-term resilience for both communities and ecosystems in the Petanglong area

B.1.5. Alignment with other projects in Petanglong area

BRAVE builds on lessons from MCI's ongoing ZCRA projects, Kemitraan's Adaptation Fund (AF) project, and consultations with communities and local governments. ZCRA's resilient livelihood pilot in 8 villages of Pekalongan City and Regency has promoted climate-smart agriculture and adaptive aquaculture, integrating conservation practices and climate risk considerations, resulting in tangible economic benefits. The pilot includes capacity building, climate field schools including the initiation of climate information system development, community-based business entities for selected commodities, with special attention to women, as well as working with the private sector. BRAVE aims to scale these initiatives by engaging additional farmer and fishfarmer groups, expanding to new villages and new commodities, improving decision-making tools, and strengthening market systems to create a resilient business ecosystem across the Petanglong area. Institutionalizing the model at both community and enabling environment levels (regulatory and financial) will support replication and scaling. Including Batang Regency and the Sengkarang watershed allows a comprehensive landscape approach to flood risks.

BRAVE will also leverage lessons from the AF project "3S Approach to Build Coastal City Resilience", which focuses on downstream areas. However, downstream-only interventions cannot fully address upstream-driven flood risks. BRAVE adopts a holistic landscape perspective, addressing upstream, midstream, and downstream segments, complementing AF interventions and expanding their impact. The project will explore potential linkages with AF interventions. The project's integrated, landscape-based approach ensures synergy with ongoing initiatives while addressing the root causes of flood risk in the Petanglong watershed. BRAVE will capitalize on established relationships by MCI/ZCRA and Kemitraan with local, provincial, and national government agencies to advocate for climate-resilient policy frameworks. These connections will play a pivotal role in boosting BRAVE's efforts to drive policy changes by advocating a climate-resilient policy framework.

B.2.1. Project/Programme description (max. 1,000 words)

B.2.1.1 Project's Design

Goal Statement:

¹⁸ Rahmawati, Rita, Rismawati, Shinta D., Zaduqisty, Esti, 2013. Sistem pengupahan dan pembagian kerja perempuan buruh batik berbasis putting out system di Kota Pekalongan. pp 274-293. Jurnal Penelitian Vol. 10. No. 2. November 2013

¹⁹ Mercy Corps Indonesia, 2020. Climate Risk and Impact Assessment of Kupang Watershed and Coastal Area of Pekalongan City and Regency

IF communities, local governments, and market actors access and apply climate information to guide land use planning, water management, and climate-resilient livelihood practices across the Kupang and Sengkarang watersheds, AND IF enabling policies, institutions, and market systems support these practices,

THEN households and ecosystems across the upstream, midstream, and downstream areas will experience sustained reductions in climate-induced flood and water-related risks, stronger and more diversified livelihoods, and improved watershed resilience,

BECAUSE risk-informed decisions, integrated watershed governance, and climate-resilient value chains collectively address the underlying drivers of vulnerability—such as degraded land, unmanaged runoff, weak institutional coordination, and fragile local economies—resulting in systemic, scalable, and long-term adaptation benefits.

The BRAVE project applies a landscape perspective, planning interventions across agriculture, forestry, and water to balance land use needs while supporting food security, ecosystem conservation, and poverty reduction. By targeting upstream, midstream, and downstream areas, the project tackles the drivers that exacerbate flood risk, land degradation, and community vulnerability, while addressing barriers such as limited climate knowledge, weak governance, market failures, and gender inequities. Its activities integrate livelihoods, ecosystems, adaptive practices, capacity building, and policy landscape improvement, with gender sensitivity ensured through assessments and balanced participation. Building on MCI/ZFRA and AF initiatives and rooted in strong community consultation, the outcomes are a direct response to systemic barriers and are designed to reinforce each other, using Outcome 1 to generate evidence, Outcome 2 to implement climate-resilient practices, and Outcome 3 to create the enabling environment for scaling and replication. The Theory of Change can be found in Annex 2c.

B.2.1.2. Project outcomes, outputs, and activities

Outcome 1: Development planning processes in Sengkarang and Kupang watersheds are participatory and climate-informed

Outcome 1 focuses on integrating climate information into landscape and community planning to strengthen resilience in the Sengkarang and Kupang watersheds. This outcome is implemented in line with locally led adaptation principles, whereby local communities and other local stakeholders are the main subjects of the planning process, and community resilience action plans are developed through bottom-up, participatory assessments conducted in target villages as a follow-up to the watershed-scale, top-down climate risk assessments. Key activities include landscape resilience assessments that combine climate risk and impact analyses with resilient livelihood assessments, linking projected climate impacts to local economic activities. A full assessment will be conducted for Sengkarang with long-term and decadal projections, while for Kupang there will be an updated assessment building on previous work. Complementing this, an ecosystem services evaluation and valuation assessment will be conducted to quantify the benefits of watershed and coastal ecosystem functions for livelihoods, water regulation, and risk reduction, providing an economic basis for adaptation and conservation priorities. This assessment is particularly important given existing challenges in the watersheds, including limited understanding of the technical and economic benefits of High Conservation Value/High Carbon Stock (HCV/HCS) approaches, weak integration of ecosystem considerations into local planning documents, and fragmented stakeholder coordination. By quantifying ecosystem values and upstream–downstream linkages, the assessment will help make the economic case for nature-based solutions and support prioritization of conservation and resilience investments. Initial consultations with local stakeholders, including PDAM Krompeng, also suggest potential pathways for future incentive mechanisms for watershed management and conservation. . These assessments inform the development of an integrated impact-based forecasting system for agriculture and aquaculture, while also serving as a technical reference for participatory community planning processes that translate watershed-scale climate risks into locally appropriate adaptation actions by translating complex climate information into practical guidance for planting, harvesting, feeding schedules, and water management. The system is designed in collaboration with IPB university and sectoral agencies, with community needs and preferences to enable alignment with Indonesia's formal village development planning mechanisms as the critical inputs, ensuring scientific evidence underpins risk-informed decision-making and provides a model for broader adoption at provincial and national levels.

In accordance with the Minister of Home Affairs Regulation (Permendagri) No. 114/2014 on Village Development Guidelines, the project will explicitly link its participatory climate risk assessments and community resilience action plans with the mandatory village planning instruments (RPJMDesa - Village Medium-Term Development Plan) and RKP Desa – Village Annual Work Plan. This ensures that community climate resilience action plan, Climate Information System (CIS) decision making toolkit, and adaptation actions can be formally integrated into village deliberation processes (Musyawarah Desa) and incorporated into village budgets (APBDes)

As a basis for the further process, 33 resilient community groups represent the final selection of 33 villages located across two watersheds, identified following the completion of the Climate Risk and Impact Analysis (CRIA) update for the Kupang watershed and the development of CRIA for the Sengkarang watershed. The initial identification of 33 resilient community groups are identified from the baseline study of climate risk and impact assessment for Kupang watershed (2020) and selected to be fair representation of 3 segments of watersheds (upstream, midstream and downstream). Since the selection will be on the basis of the updated climate risk and impact profile for those watersheds, including for the land-use dynamic affecting those profiles (for the upstream and mid-stream villages consideration). These villages were selected based on their climate risk and impact profiles, which also consider land-use dynamics influencing vulnerability—particularly in upstream and mid-stream areas. The composition of each group will be determined through careful consideration of community power dynamics and gender dynamics, informed by assessments conducted during the participatory, bottom-up climate resilience process using community-based vulnerability, risk, and resilience

measurement tools. We will ensure that socially and economically vulnerable groups are adequately supported to engage meaningfully within these groups

These groups, with 495 members (with around 40% are women) will be trained in different climate resilience context such as risk-informed planning, climate information use, disaster response and gender-sensitive approaches. The formation and capacity building of these groups will ensure the meaningful participation of vulnerable groups, including women and climate-exposed households, throughout the planning, decision-making, and implementation processes. The training topics will be tailored to the specific interventions planned for implementation in that particular community. Participatory planning processes with community groups, local government, and sectoral agencies will lead to the development of 33 community resilience action plans that explicitly integrate climate adaptation and gender considerations and contribute to improving management of 3,700 hectares of productive land. Each plan will also include a participatory monitoring framework with capacity building, community level indicator development, and regular multi-stakeholder evaluation forums, to support adaptive implementation.

The blue green space establishment will involve at least 8 villages that is subset from the 33 villages, in priority upstream and midstream locations and building on preliminary hydrological and spatial analysis conducted during the PPF phase. Before proceeding with the BGS construction, we will carry out technical assessments (e.g. hydrodynamic modelling, infiltration testing, geotechnical surveys, and water quality sampling) during the inception phase. Technical assessments are essential to finalize site selection, validate design assumptions, and ensure ESS category C compliance. The technical assessments will be reviewed by the PSC and GCF as appropriate. This will be followed by site-level stakeholder consultations with government agencies, village authorities, and communities to assess local risk perceptions, environmental conditions, and community receptivity to Blue Green Space interventions. Technical assessments, including physical and drainage analyses, mapping, and field inspections, will support site feasibility and the securing of necessary permissions, while ensuring that blue-green spaces function as flood regulators during wet periods and as recreational public spaces during dry periods, while enhancing biodiversity and infiltration capacity. This process will allow those core functions and co-benefits to be explicitly considered and integrated in the technical assessment and design process.

A set of Blue Green Space site selection criteria has been added to the Pre-FS Annex Blue Green Space Study section 3.4 Site Selection.

No	Prioritisation criteria	Criteria & indicators	Description
Physical criteria			
1	Maximising the area of the blue green space	Area (m ²)	The plot size is to be a minimum of 2,500 m ² , and unlikely to be over 15,000 m ² .
2	Maximising area served by blue green space and number of beneficiaries	Area (km ²) No of beneficiaries	The area served is to be at least 1 km ² with priority given to larger catchments, although typically not exceeding 5 km ² .
3	Predominantly flat terrain within a 1000 m radius	Flatness of the area of 1000 m (%)	Slope preferably does not exceed 12%, with preference for flatter terrain. The exact value to be confirmed during the design phase.
4	Condition of the drainage network around the area	The presence of drainage around the location	The area shall be served by an existing and adequate drainage network, with sufficient capacity and structural condition to safely convey overflow from the blue-green space under design storm conditions.
		Cleanliness of drainage	Preference is given to areas with well-maintained and clean drainage systems.
5	Groundwater in and around the area (radius 0-100 m), and groundwater in the lowland/lower area	Average of groundwater depth (during the rainy season) (cm)	Areas with greater groundwater depth are preferred, with minimum assumed depth of 50 cm.
6	Land use/cover in and around area	Land use in the targeted area	The blue-green space is assumed to be located on underutilized land (e.g., shrubland or unmanaged areas).
7	Proximity to settlement	Distance (km)	The space is to be situated no more than 5 km from settlements, with priority given to nearer locations.
Socio-economic criteria			

8	Acceptance of the blue-green space by the surrounding community	Permission	The blue green space must require permission from the surrounding community.
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A set of exclusion criteria will be followed to ensure that activities related to the blue-green space component of this project are aligned with GCF investment criteria and GCF ESS Category C. Sites will be excluded from consideration if they meet any of the following conditions:

Physical exclusion criteria

- Sites that are not currently served by an existing drainage system.
- Sites currently under productive use (e.g., agriculture or active economic use). Land that will result in the reduction or displacement of existing productive land for local farmers or communities. This includes any site requiring physical displacement of people or demolition of residential or commercial structures.
- Sites with the presence of contamination posing risks to community health and safety.
- Sites with unclear, disputed, or insecure land ownership or tenure status.
- Sites located in or near sensitive or critical habitats, including protected areas or zones supporting threatened species.
- Sites that may impact cultural heritage, sacred sites, or areas of historical or archaeological significance.
- Sites with poor geotechnical conditions that would necessitate major engineering interventions beyond the scope of small-scale nature-based solutions.
- Sites requiring extensive earthworks, deforestation, or prolonged use of heavy machinery to limit construction scale to small, low-impact interventions

Socio-economic exclusion criteria

- Sites for which the project implementors are unable to obtain necessary permits or stakeholder approvals for development, particularly by residents of the surrounding settlements.
- Sites for which a management plan endorsed by the relevant working group is rendered impossible to be approved and enforced.
- Sites for which a budget plan that adequately covers operational and management costs and does not demonstrate potential for economic returns or income generation is rendered impossible to be established.

In addition to the above, the project implementors will:

- Develop a standardized site-screening checklist that operationalizes all exclusion criteria to be completed and signed off by the working group for each of the 12 candidate sites before any proceed to detailed design.
- Confirm land-use/zoning alignment for each site under Ministerial Regulation No. 14/2022 and local spatial plans and provide documentation of this alignment in the baseline report during the landscape design for blue-green space activity.
- Ensure minimum a preliminary geotechnical and ecological assessment for all candidate sites at the baseline report during the landscape design for blue-green space activity.

Building on the PPF blue-green study, these steps will culminate in landscape designs of blue-green spaces including options such as flood buffers, wetlands, riparian zones, and urban green areas. Together, these activities enable data-driven, gender-sensitive, and climate-resilient planning, linking scientific evidence with actionable community strategies for sustainable development. This approach reinforces local ownership, enhances social inclusion, and aligns with GCF principles on country ownership and locally led climate action. The main outputs and activities are shown below.

Outcome 1: Development planning processes in Sengkarang and Kupang watersheds are participatory and climate-informed

Output 1.1 Climate-based evidence is available to targeted communities and project stakeholders for climate-resilient planning	1.1.1	Conduct climate risk and impact assessment for Sengkarang watershed and updating the climate risk and impact assessment for Kupang watershed
	1.1.2	Develop ecosystem service evaluation and valuation assessment

Output 1.2. Community-based climate change adaptive management plans and designs have been developed to enhance community resilience

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|--------|--|
| 1.2.1 | Formation and strengthening of climate-resilient community groups in target villages |
| 1.2.2 | Develop community resilience action plans through inclusive stakeholder participation |
| 1.2.3. | Conduct Hydrological analysis of watershed area to inform development of blue green spaces |
| 1.2.4. | Securing approval of blue green spaces sites through stakeholder validation and risk perception analysis |
| 1.2.5 | Landscape design of the blue-green space |

Outcome 1 directly addresses the barriers related to limited climate knowledge and capacity, fragmented institutional coordination, and weak integration of climate information into planning processes. The development of climate risk and impact assessments, ecosystem service valuation, and localized climate information systems responds to the lack of accessible and usable climate data identified as a major constraint for communities and local governments. The formation and strengthening of climate resilient community groups and the development of participatory community resilience action plans help overcome institutional and governance barriers by enabling coordinated, cross-sectoral planning and ensuring climate risks are formally integrated into village planning instruments such as RPJMDesa and RKP Desa. Capacity building activities targeting community members and local authorities also address social and cultural barriers by empowering vulnerable groups, including women, to actively participate in decision-making and climate-resilient planning processes. Through these interventions, Outcome 1 establishes the foundational knowledge, governance structures, and participatory mechanisms necessary to support long-term climate-resilient development across the watershed landscape.

Outcome 2: A Resilient Community and Ecosystem from Better Runoff Management and Climate-Resilient Livelihoods Across the Watersheds

Under Outcome 2, the project will deliver measurable climate resilient livelihood outcomes, with 520 households (approximately 2,080 people) adopting climate resilient agriculture and aquaculture practices across the Kupang and Sengkarang watersheds. These results directly address the climate impact identified under Outcome 1, including the effect of increasing temperature, erratic rainfall, upstream erosion, flood hazards, coastal inundation, and salinity intrusion to the livelihood of the communities. Under Outcome 2, the project will deliver measurable outcomes related to climate resilience in livelihoods, with 520 households (approximately 2,080 people) adopting climate-resilient agricultural and aquaculture practices across the Kupang and Sengkarang river basins. This outcome directly addresses the climate impacts identified under Outcome 1, including the effects of rising temperatures, erratic rainfall, upstream erosion, flood hazards, coastal inundation, and salinity intrusion on community livelihoods. Community selection was conducted through an assessment based on climate resilience criteria generated from the participatory process in Outcome 1 and the prioritization results for the community resilience action plan. More specifically, interventions will be implemented in 25 villages with agriculture and aquaculture characteristics and 8 villages with blue green spaces, ensuring that there is no overlap in interventions across the 33 villages. Based on location, only 15 villages in the upstream and midstream areas are implementing the Climate-Smart Agriculture and Conservation intervention, while only 10 villages in the downstream and coastal areas are implementing the Aquaculture and Value-Added Scheme. Meanwhile, 8 villages will be selected to implement the Blue Green Space.

To overcome barriers affecting upstream and midstream communities particularly on limited adaptive farming knowledge, inadequate access to climate information, and degraded land conditions, the project will implement climate smart agriculture (CSA) based on community prioritized measures identified through participatory planning processes. CSA interventions will strengthen farmers' adaptive capacity, reduce climate-induced production losses, and enhance watershed stability through introduction of water and soil conservation principles. These interventions will be implemented in 15 villages located in upstream and midstream areas, where farmers will adopt climate-smart agriculture practices integrated with conservation measures to address land degradation and reduce runoff risks. Activities include establishing regenerative agriculture demonstration plots, conducting climate field school trainings for priority commodities (e.g., coffee and carrot), expanding and contextualizing the Climate Information System (CIS), and strengthening local farmer organizations for sustained adoption. Farmer groups will lead the design and implementation of CSA activities, supported by technical facilitation to ensure practices are locally appropriate, gender responsive, and climate informed.

To address climate risks in coastal and downstream areas particularly the sea level rise, tidal flooding, and declining aquaculture productivity, the project will introduce adaptive aquaculture systems in 10 target villages located in downstream and coastal areas. Interventions will promote resilient practices such as floating net systems, relocating ponds inland, applying silvofishery models, and enhancing management for grouper and milkfish production. These measures will be complemented by improved feeding practices, water quality management, and support for value added aquaculture initiatives led by women's groups. Aquaculture farmer groups and women's groups will lead day to day implementation, while Mercy Corps Indonesia and relevant sectoral agencies will provide support, technical assistance to ensure sustained and climate responsive practice adoption.

The implementation of climate field school both for agriculture in upstream area and for aquaculture in downstream area will in collaboration with the Regional Climatology Agency. The resulting training modules will enable the agency to replicate and implement similar climate-responsive agriculture and aquaculture field schools across Central Java.

A participatory community-based monitoring framework will be implemented to enable continuous learning and adaptive management. Communities and local stakeholders will jointly define indicators, monitor resilience outcomes, and adjust

interventions as climate conditions evolve. This approach strengthens local ownership, institutionalizes climate responsive decision making, and ensures that adaptation actions remain effective, equitable, and aligned with long term resilience pathways.

Climate rationale for the chosen commodities. The chosen commodities, grouper, carrot, milkfish, and robusta coffee, are central to local livelihoods and markets but increasingly vulnerable to climate change. Grouper faces declining wild catches as safe fishing periods shrink, making climate-resilient aquaculture a sustainable adaptation pathway despite past challenges with contamination, flooding, and feed management. Carrot, an important upstream crop, is more climate-tolerant than other vegetables but suffers major yield losses from drought, waterlogging, and disease; its storability and less extensive chemical use and strong demand make it a viable adaptation option compared to potato. Milkfish, Pekalongan's primary aquaculture commodity, is severely threatened by subsidence, sea-level rise, and tidal flooding, with pond areas significantly reduced, requiring urgent adaptive systems to sustain production and livelihoods. Robusta coffee is highly sensitive to rainfall extremes, drought, and pests, which reduce both yield and quality, but it also plays a vital role in watershed protection, making resilient coffee systems critical for both farmers and ecosystem stability. Beyond its economic role, coffee farming, in particular in agro-forestry systems, maintains vegetation cover in critical catchment areas, linking climate-resilient coffee production to both livelihood security and water resource protection.

The project also supports participatory land use and conservation implementation, including floodplain restoration, bioswales, and vegetative-based technologies to promote sustainable soil, hydrology, and biodiversity management. Collectively, these interventions will provided adaptation benefit to approximately 14,160 people by improving watershed health, promoting sustainable land use, and restoring ecosystem services. With all evidence and proven model in-place, the project aims to strengthen village engagement by improving access to localized, practical climate information through simplified datasets and an enhanced Climate Information System (CIS). Village governments will be trained to interpret climate risks and integrate them into their annual and medium-term plans and budgets using CIS-decision making toolkits. In alignment with Ministry of Home Affair Regulation No. 114/2014, participatory climate risk assessments and community resilience action plans will be directly linked to village planning instruments (RPJMDesa and RKPDesa), ensuring that climate actions are formally incorporated into Musyawarah Desa (village planning deliberation) processes and village budgets (APBDDes). The project will also encourage sustained adaptation financing by supporting villages and districts to allocate Village Funds, APBD/APBDDes, and sector budgets while exploring opportunities for blended finance. Not only targeting the proportion for those with climate, but we will examine the relevance of activities to the potential for under village fund financing. The potential for financing using village funds for addressing climate change, based on the Ministry of Village Regulation, is specifically regulated to address the impacts of climate change, including drought, flood, and landslide control, handling and anticipating sea level rise or seawater intrusion, and other climate change adaptation activities. However, the regulation does not specify a specific percentage for CCA. To ensure adequacy, mainstreaming process of CCA needs and village programming will be conducted. To ensure coordinated financing and transboundary implementation, advocacy for policy change will be conducted at multiple levels, not only at the village-level planning and budgeting level, but also at the city/regency level to ensure alignment between villages, that will be implemented under Outcome 3.

Runoff management will be strengthened through the establishment of four blue-green spaces, involving at least 8 villages, in priority upstream and midstream locations. Building on result from detail hydrological analysis and site level stakeholder consultations on risk perception and technical-environmental analyses under Outcome 1 the project will carry out d sectoral risk and opportunity assessment and planning for the multi-functional use of blue-green spaces to guide the utilization of each blue-green space. Each site is co-designed with government officials, village representatives, and the project team and validated through public consultations, alongside the establishment of blue-green space management working group formalized under a Mayor's or Regent's Decree to ensure coordinated planning, implementation, and oversight and ensuring consistency and commitment among those involved in the BGS planning discussions for effectiveness and efficiency. These will ensure that physical, hydrological, and landscape plans are responsive to community needs. In parallel, the project will ensure that all required permissions are secured prior to MoU establishment, including consent not only from landowners but also from surrounding communities, where community consent is not obtained, the blue-green space will not be implemented in that location. Blue-green space design options have been explored at the PPF stage. Four indicative sites have been identified, all of which meet the preliminary requirements for establishment based on spatial and hydrological analysis and discussion with local governments. Preliminary design options for each of the four sites are available in the Study on Blue-Green Space that is attached as an appendix to the Pre-Feasibility Study. Integrated systems and procedures for monitoring and communication of blue-green space risks will be developed for each site to track performance and manage flood risk and ensuring no social and environmental risks are breached. We will use monitoring data to refine BGS performance and adjust designs as needed. We will also conduct infiltration tests, soil surveys, rainfall frequency analysis, and peak flow attenuation modelling for BGS design validation. Site-specific operational and management arrangements will also be incorporated to ensure the structures function as flood regulators during wet periods and as recreational public spaces during dry periods, while enhancing biodiversity and infiltration capacity. Sub-district contingency plans are also established, with training for local committees to improve flood preparedness, response, and early action. This intervention reduces flood risk for 121,036 people and contributes to the long-term resilience of both communities and ecosystems across the watersheds. The operation and maintenance plan for the blue-green space will be developed during project implementation, following the establishment of the project's Standard Operational Procedure.

Activities under Outcome 2 ensure the sustainable implementation of those planned under Outcome 1. The pilot implementation of climate-smart agriculture, adaptive aquaculture, and water runoff management will demonstrate the validity of chosen approaches. These interventions will be prioritized based on the Community Resilience Action Plans developed under Outcome 1, considering their relevance to the BRAVE project scope, the urgency and cost-effectiveness, potential support from relevant stakeholders, the expected benefits for communities and the surrounding landscape, as well as the acceptance and willingness of target communities

to participate in the proposed interventions, From the results of prioritization together with stakeholders using these criteria, MCI as Executing Entity will have full authority to decide on the interventions needed on these 33 villages selected.

Outcome 2: Communities in the targeted watersheds implement climate-resilient livelihoods and integrated watershed/runoff management practices that reduce climate-related risks

Output 2.1 Communities in the targeted watersheds are supported to implement the climate-informed and climate-resilient livelihood options	2.1.1	Conduct climate-smart field schools for agriculture and aquaculture to promote climate-resilient farming and adaptive aquaculture practices.
	2.1.2	Expand and contextualize the Climate Information System (CIS) to support community resilience action plan implementation across upstream, midstream, and coastal communities, focusing on coffee, carrots, milkfish, and grouper commodities
	2.1.3	Build the financial and business management capacity of farmer and fish-farmer groups to function as aggregators for their members
	2.1.4	Implement participatory conservation measures and establish climate smart agriculture demonstration plots
	2.1.5	Establish adaptive aquaculture demonstration plots complemented with improved feeding management practices and introduce value added schemes for women farmer groups
	2.1.6	Facilitate village engagement and advocacy in upstream, midstream, downstream and coastal communities to support knowledge exchange with farmer and fish-farmer groups
Output 2.2. Integrated runoff management and flood preparedness systems established in targeted sub-districts	2.2.1	Establishment of blue-green spaces informed by sectoral risk and opportunity assessment
	2.2.2	Provide systems and procedures for monitoring, communication and operational management of blue-green spaces
	2.2.3	Securing validation of designs and establishment of blue-green spaces management working groups
	2.2.4	Develop sub-district level contingency plans
	2.2.5	Train local communities on flood preparedness and response

Outcome 2 responds primarily to economic, environmental, and technical barriers that limit the adoption of climate-resilient livelihood practices and sustainable watershed management. The introduction of climate smart agriculture and adaptive aquaculture addresses the limited technical capacity and degraded land conditions that contribute to declining productivity and increased vulnerability to climate risks. Demonstration plots, climate field schools, and expanded Climate Information System services respond directly to knowledge gaps among farmers and fish-farmers, enabling them to adopt locally appropriate and climate informed production methods. Participatory conservation activities, blue-green space development, and integrated runoff management interventions address environmental degradation and unmanaged surface runoff, which were identified as key drivers of flooding and ecosystem decline. In parallel, strengthening farmer and fish-farmer groups and supporting financial and business management capacity addresses market and financial barriers that restrict investment in climate resilient practices. Together, these interventions enable communities to transition from vulnerability to resilience by improving livelihoods while restoring ecosystem functions and watershed stability.

Outcome 3: Enabling Environment to Replicate and Scale-Up Climate-Resilient IWRM

Outcome 3 focuses on creating an enabling environment to ensure the sustainability, replication, and scaling-up of climate-resilient Integrated Water Resource Management (IWRM) and livelihood practices. Evidence-based policy recommendations are developed through analyses at national, provincial, and local levels, complemented by multi-level advocacy dialogues with government, academia, private sector, communities, and media. Communication and media outreach activities will reinforce policy narratives and advocacy objectives while also supporting broader visibility of project results. Lessons learned, evidence, and key insights, including findings from climate risk assessments and ecosystem service valuation analyses, will be synthesized and disseminated through targeted media products and a maintained knowledge repository to inform policymakers and practitioners. Evidence generated through ecosystem valuation will support advocacy efforts by demonstrating the economic benefits of ecosystem functions and climate-resilient investments, helping strengthen justification for public investment decisions (e.g., APBD/APBDes), prioritization within planning instruments (RTRW/RPJMD), and the exploration of incentive-based financing mechanisms for watershed management such as Imbal Jasa Lingkungan (IJL) and broader financing opportunities. Stakeholders will also receive orientation and practical guidance on how to apply the tools and frameworks developed under the project, enabling project knowledge to be translated into policy formulation and planning processes grounded in scientific evidence and practical experience. This approach strengthens the institutional and regulatory framework, contributing to the broader adoption of climate-resilient practices in line with GCF result areas. A climate-resilient IWRM framework will be co-developed with stakeholders to integrate landscape and climate resilience perspectives into policy and planning. A decision-making tool, CIS, is operationalized to translate scientific data into actionable guidance for agriculture and aquaculture, and to some extent for watershed management, accompanied by user guidance and capacity support to enable stakeholders to apply the system effectively. Advocacy supports the inclusion of IWRM principles into local and provincial policies, promoting a systematic approach to risk-informed water management. These interventions ensure that climate-resilient planning is embedded into governance structures and local decision-making

processes. The integration of climate-resilient IWRM and livelihood approaches into local and provincial policies is intentionally designed to promote strong local ownership, institutional anchoring, and long-term sustainability, ensuring that climate-resilient practices are maintained and scaled beyond the project lifecycle

To reinforce economic sustainability, climate-resilient livelihood business models are developed for key commodities (grouper, milkfish, coffee, and carrot), linking farmers, farmer groups, MSMEs, financial actors, markets and technical service providers. Within this market system development approach, community organizations and producer groups are positioned as prominent market actors, playing active roles in aggregation, service delivery, coordination with buyers, and engagement with financial institutions. Climate-resilience criteria generating from the participatory process under Outcome 1 and the result of prioritization of community resilience action plan will be explicitly embedded into business model design to ensure the models are both commercially viable and resilient to climate risks. Four business models are adopted, with four organizations (including off-takers, agriculture/aquaculture input providers, and financial institutions) formalizing engagement through MoUs or other means of agreements. Bundled service schemes are developed per commodity, providing technical advisory and access to financial products. Technical advisory services may include financial literacy, financial readiness, and climate-resilient production guidance, which will include support for application processes, onboarding, and access to instruments such as savings schemes, parametric insurance, and microfinance that incentivize climate-resilient investments. The general scheme might be similar across commodities, but the specifics may vary.

It is important to note that consultations have been conducted with a range of financial service providers, including national commercial bank (BRI), regional development bank (Bank Jateng), microfinance institution (BPR Jateng), non-bank financial institutions (PNM), and insurance companies (Zurich Syariah and ACA Asuransi). In addition, consultations were held with key ecosystem actors operating within a closed-loop model, such as input suppliers, off-takers, and aggregators (e.g., Petung Bumi Makmur and Moya Bahari Perdana). These consultations explored several areas, including the potential for bundling parametric insurance with loans and savings, defining participant eligibility criteria in agreement with financial service providers, conducting financial literacy and strengthening financial management capacities (such as separating business and household finances and calculating the cost of goods sold), and insurance awareness. The bundled services are designed to function as a de-risking mechanism, with clearly defined roles for each stakeholder to reduce the likelihood of non-performing loans. This includes a repayment mechanism whereby proceeds from harvest sales are transferred directly into participants' savings accounts.

As a follow-up to these consultations, there is potential demand from 400-600 program participants for bundled loans, parametric insurance, and savings/digital payment services with 30% potential active user. The bundled financial services package is designed to combine access to credit, savings mobilization, and risk protection to support climate-resilient livelihoods. Assuming an average loan size of IDR 5 million per beneficiary, the loan component provides working capital aligned with agricultural and aquaculture production cycles. To strengthen financial resilience, participants are expected to build regular savings over a two-year period at IDR 100,000 per month, which serves not only as a liquidity buffer but also as an emergency fund to absorb shocks. In addition, these savings can function as an alternative source for future insurance premium payments, helping to sustain participation in the insurance scheme beyond the initial support period. In parallel, participants are enrolled in parametric insurance schemes, with a premium of IDR 500,000 per year for two years, providing protection against climate-related risks (e.g., extreme rainfall or flooding) that may affect production.

Together, this bundled-service approach is also designed as a de-risking mechanism, with clearly defined roles across aggregators, financial institutions, input providers, and market actors to reduce barriers for both smallholders and lenders. Thus, it reduces risk for both farmers and financial institutions, improves loan performance, and creates a more bankable and resilient livelihood system, while supporting the long-term sustainability of insurance uptake and financial inclusion beyond the project period. This is particularly relevant in Indonesia, where average farm sizes are often only 0.3–0.5 ha, making direct engagement with individual farmers less attractive due to high transaction costs and concerns around non-performing loans (NPLs). Community organizations and producer groups therefore serve not only as aggregators of products, but also as intermediaries for market access, input provision, and financial services. Based on market assessments, the project identified a potential market pool of 400–600 participants for bundled financial products and services. Rather than targeting immediate large-scale adoption, the project adopts a use-case approach, where early implementation demonstrates viability and generates evidence for future scaling. This assumption is grounded in Mercy Corps Indonesia's implementation experience across multiple closed-loop model initiatives, which show gradual uptake dynamics due to initial barriers such as financial literacy, risk aversion, and access constraints. It is further supported by evidence from the Financial Services Authority (OJK), indicating that active utilization rates of financial products are closely linked to portfolio quality considerations, particularly non-performing loan (NPL) risks, where conservative uptake assumptions are necessary to ensure financial sustainability and realistic market penetration. This approach directly contributes to the project's market and finance transformation pathway; one of the three core paradigm shifts under BRAVE. By operationalizing closed-loop business models and bundled financial services, the project moves beyond one-off financial access toward systemic de-risking and sustained private sector engagement.

At the same time, it reinforces:

- Community empowerment, by equipping farmers and MSMEs with the capacity and financial tools, including digital marketing channels to make climate-informed investments; and
- Systemic governance change, by embedding these models within institutional frameworks and partnerships that can be scaled beyond the project lifecycle.

As a result, BRAVE aims to shift the system from fragmented, subsidy-driven financing toward integrated, market-based climate finance pathways, ensuring long-term sustainability and scalability. This design is expected to strengthen the agency and commercial viability of community-based organizations, enabling them to move beyond beneficiaries to function as sustainable, locally anchored economic actors within the value chain. Companies are expected to scale these models in their operations in other locations, indirectly reaching significantly more farmers. While uptake targets are conservatively estimated, the project invests in creating enabling conditions for longer-term expansion through strengthened financial literacy, business management support, social inclusion and market assessments, and co-development of fit-for-purpose financial products with financial institutions. The objective is to create evidence and business cases that enable partners to scale these models beyond the project timeframe using their own resources. To further support scalability and attract greater private-sector investment, the project will develop a specialized knowledge product documenting the business model development process using the bundled-services approach. This knowledge product will serve as a use-case reference for promotional efforts, pitching to broader stakeholders (especially private-sector actors) and reinforcing the investment potential of climate-resilient livelihood models. Outcome 3 will involve regular monitoring and evaluation activities on technical performance of the close-loop model, which will inform the refinement of the project approach and activities.

Outcome 3: Enabling environment to replicate and scale-up climate-resilient IWRM exists

Output 3.1. Government stakeholders, academia, private sector, community and media are informed of best practices of climate-resilient and climate-informed livelihood options, and policy recommendations.	3.1.1	Conduct policy analysis at provincial and local level to inform evidence-based policy recommendations
	3.1.2	Facilitate multi-level advocacy and policy dialogues to advance the integration of Integrated Water Resources Management (IWRM) principles into local and provincial policies
	3.1.3	Develop and disseminate a summary for policy makers based on lessons learned
	3.1.4	Co-develop climate-resilient IWRM framework through stakeholder consultation (to integrate landscape and climate resilience perspectives)
	3.1.5	Conduct media outreach and visibility campaigns and maintain knowledge repository
	3.1.6	Co-develop decision-making tools for sector-specific (CIS) with relevant local partners
	3.1.7	Amplify the project learning and evidence to inform the climate resilience policy development at the national level
Output 3.2. Communities in the targeted watersheds have access to supports with climate-resilient livelihood business models and finance	3.2.1	Detailed Market scoping analysis both for agriculture and aquaculture commodities
	3.2.2	Improve network with off takers, aquaculture and agriculture input providers
	3.2.3	Strengthen networks and facilitate linkages with financial institutions and technical assistance advisory groups, to improve access to finance and market opportunities.
	3.2.4	Develop bundled service business models for selected aquaculture and agriculture commodities
	3.2.5	Document and disseminate lessons learned on the replication potential of business models
	3.2.6	Conduct regular monitoring and evaluation on technical performance of the closed-loop model.

Outcome 3 addresses institutional, policy, and market barriers that limit the sustainability and scalability of climate-resilient interventions. Policy analysis, multi-level advocacy, and the co-development of climate resilient IWRM frameworks respond to fragmented governance structures and weak coordination across sectors and administrative levels. The development of decision-making tools such as the Climate Information System and the integration of climate-resilient planning into local and provincial policies strengthen institutional capacity and promote long term adoption of risk informed planning practices. In addition, the development of bundled service business models and strengthened linkages with financial institutions address market and financial barriers by improving access to finance, technical services, and climate resilient market opportunities. These interventions create enabling conditions that support replication, scaling, and long-term sustainability of adaptation measures beyond the project implementation period.

The three outcomes of the project are closely interlinked, forming a continuous cycle of evidence generation, implementation, and scaling for climate-resilient watershed management. Outcome 1 provides scientific foundation by generating climate and landscape data, conducting risk and impact assessments, and developing resilient livelihood analyses and impact-based forecasting systems. This evidence-based approach ensures that the planning of climate-resilient activities under Outcome 2, such as climate-smart agriculture, adaptive aquaculture, and blue-green space development, is informed by robust climate projections and local ecosystem understanding, maximizing their effectiveness and relevance. Outcome 2 operationalizes the plans from Outcome 1, implementing tangible interventions that enhance socio-economic and ecosystem resilience. The lessons, successes, and challenges from these activities feed directly into Outcome 3, guiding the development of enabling policy frameworks, business models, and market systems needed for replication and scaling. Conversely, the enabling environment established under Outcome 3, through policy adoption, decision-making tools, and inclusive market systems, reinforces Outcomes 1 and 2 by facilitating sustained use of climate information, promoting broader stakeholder engagement, and supporting the long-term viability of community and ecosystem interventions. Together, the three outcomes create a reinforcing loop where science, action, and enabling

conditions continuously inform and strengthen one another, ensuring sustainable, scalable, and climate-resilient watershed management.

Figure 1 below provides a simplified correlation between climate variability and risk, as well as its derivative impacts described in the previous section and interventions under the intervention focus of the BRAVE project.

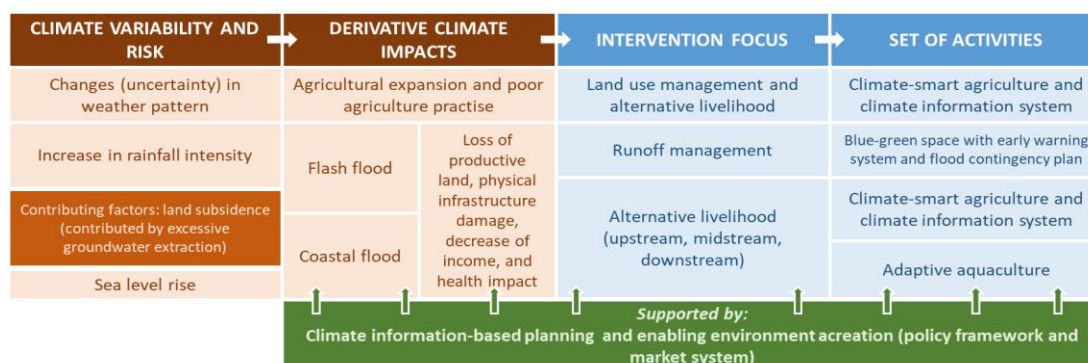


Figure 1: Correlation between Climate Variability, Risk, Derivative Impacts and Project Interventions

The project generates multiple co-benefits that extend beyond its primary objective of climate-resilient watershed management, spanning environmental, social, and economic dimensions. Environmentally, interventions such as blue-green spaces, and conservation enhance ecosystem health, biodiversity, water retention, and climate mitigation. Socially, resilient community groups, participatory planning, and training strengthen local decision-making, gender inclusion, food security, and disaster preparedness. Economically, climate-smart agriculture and adaptive aquaculture increase productivity, stabilize incomes, and create value-added opportunities, while bundled financial services improve access to credit, insurance, and technical support. Together, these interventions create a virtuous cycle, enhancing ecosystem resilience, community well-being, and sustainable livelihoods for long-term climate adaptation.

Project location. The intervention area for BRAVE was carefully selected based on initial field observations, the CRIA, and opportunities to create synergies with existing initiatives in the Petanglong area. This includes complementing the Adaptation Fund Project of Kemitraan, which focuses on strengthening climate resilience in the coastal area of Pekalongan City. A total of 33 villages across the Kupang and Sengkarang watersheds will be directly involved in the project, with tailored interventions based on local priorities and climate risks. As the Petanglong area is characterized by a high level of flood risk, driven by a combination of tidal flooding, sea-level rise, land subsidence, and increasingly erratic rainfall patterns. This creates a highly dynamic context where conditions can shift rapidly within a single season. Recognizing this dynamic context, the BRAVE project will adopt a flexible and adaptive approach to planning and implementation. The project design intentionally accounted for potential overlaps and synergies with other ongoing initiatives, ensuring complementarity rather than duplication. As implementation proceeds, the project will maintain a mechanism for monitoring changes in the physical environment, flood risk patterns, and stakeholder activities. These observations will inform regular updates to the project's operational plan, and any significant changes will be treated as part of the project's operational risk framework.

The design of the BRAVE project ensures sustainability through operational and maintenance (O&M) systems as well as long-term financial viability. From a technical perspective, sustainability is anchored through a robust O&M system that is built into every stage. Systematic climate risk and impact assessments, resilient livelihood analyses, ecosystem services valuation, and the integration of climate projections are embedded into the land use, conservation, and livelihood planning. These are supported by the establishment of climate-resilient community groups, targeted capacity building on risk-informed planning and climate information services, the development of climate-smart agriculture and aquaculture demonstration plots, and the institutionalization of blue-green space management, contingency planning, and community-based monitoring and response systems. Budget allocations for community groups, capacity building, and climate-smart field schools and demonstration plots ensure that local actors gain the skills required to operate, maintain, and monitor the interventions beyond the project lifespan.

On the financial side, the project establishes self-sustaining revenue pathways through bundled service business models for priority commodities (enhancing value-added production particularly for women's groups, improving feeding and farming efficiencies, and expanding access to markets and financial services. These interventions create diversified income streams that allow communities to finance ongoing adaptation, enhance creditworthiness, and institutional uptake and long-term government commitment.

2.2. Outcome mapping to GCF results areas and co-benefits categorization

Fill in the GCF results area table below to map each project/programme outcome identified in section B.2.1 to the contributing GCF results area(s) by referring to the description of eight results areas provided in the guidance note.

Outcome number	GCF Mitigation Results Area (MRA 1-4)				GCF Adaptation Results Area (ARA 1-4)			
	MRA 1 Energy generation and access	MRA 2 Low-emission transport	MRA 3 Building, cities, industries, appliances	MRA 4 Forestry and land use	ARA 1 Most vulnerable people and communities	ARA 2 Health, well-being, food and water security	ARA 3 Infrastructure and built environment	ARA 4 Ecosystems and ecosystem services
Outcome 1	☐	☐	☐	☐	☒	☐	☐	☐
Outcome 2	☐	☐	☐	☐	☒	☐	☐	☒
Outcome 3	☐	☐	☐	☐	☒	☐	☐	☐

If any co-benefits have been identified in section D.3, fill in the co-benefit table below to map each co-benefit to the corresponding category as defined in the FP guidance note.

Co-benefit number	Co-benefit					
	Environmental	Social	Economic	Gender	Adaptation	Mitigation
Co-benefit 1: Enhanced access to income generation opportunities .	☐	☐	☒	☒	☒	☐
Co-benefit 2: Equitable participation in the planning process and shared resilience benefits for women, men, and communities	☐	☒	☐	☒	☐	☐

B.3. Implementation / institutional arrangements (max. 750 words)

Project Implementation Structure. The implementation of the BRAVE project is structured around clearly defined legal, institutional, and fiduciary arrangements to ensure effective execution, accountability, and sustainability. The project aligns with the fiduciary standards and project management responsibilities of the Accredited Entity (AE), *Kemitraan*, and the Executing Entity (EE), *Mercy Corps Indonesia*.

Kemitraan, with GCF accreditation under basic and specialized fiduciary standards, will be responsible for:

- Overseeing the project implementation by the EE.
- Ensuring fiduciary compliance and safeguard standards are met.
- Submitting periodic reports to GCF and receiving GCF disbursements.
- Disbursing funds to the EE based on the approved disbursement plan.
- In addition to oversight role, Kemitraan will also take lead as part of the Executing Entity in implementing activities, which aligning to Kemitraan's role as part of PSC member.

A funded activity agreement, in the form of a non-reimbursable grant agreement, will be executed between GCF and Kemitraan, which will include all terms for disbursement, reporting, safeguards, and monitoring. A Subsidiary Agreement will be established between Kemitraan and MCI to govern project execution. The Subsidiary Agreement will specify roles and responsibilities, performance requirements, fiduciary obligations, procurement and safeguard procedures, grievance redress mechanisms, financial management protocols, and reporting requirements. The Subsidiary Agreement will reflect alignment with GCF-approved proposal terms.

MCI will be the main Executing Entity responsible for implementing and managing the BRAVE project according to the approved proposal and implementation plan to ensure a successful, effective, and timely delivery of the BRAVE project. MCI is a non-government organization with significant project portfolios in climate adaptation

and resilience, as well as economic development across different areas in Indonesia. The Monitoring, Evaluation, and Learning system (See Annex 14) will be developed and implemented by the EE to track progress and outcomes. Reporting will be done regularly by the EE to the AE. Before project commencement, a detailed coordination scheme will be established between the EE and Kemitraan to ensure they can track the progress of the project. A coordination mechanism between AE and EE will be institutionalized through joint oversight meetings (likely quarterly reviews between Kemitraan and MCI) and the establishment of a Project Steering Committee (PSC), composed of representatives from Kemitraan, MCI and key government agencies and local partners. The main function of PSC is to provide strategic oversight, ensure coordination among relevant governments and stakeholders, and guide high-level decision-making. There will also be Stakeholder Advisory Forums (SAF), as a platform of consultation forums. SAF will primarily play a role in stakeholder inclusion and ensure that each community or representative including 20% women are given the opportunity to provide input or feedback to the implementation stages. The SAF will be conducted annually, complementing the involvement of the project partners in regular monitoring, and will include community representatives, local government, civil society actors, and implementing partners, to ensure inclusion and feedback loops. To ensure representation of gender equity and social inclusion context in the composition of SC, we will also include the representatives of government, social and cultural divisions in the Regional Development Planning Agency.

The Project Management and Implementation Unit (PMIU) will oversee day-to-day project execution, including technical delivery, procurement, financial management, and monitoring and evaluation. The EE will start to recruit the PMIU team members, which consists of fully dedicated managerial and technical staff. Early in the project initiation phase, the EE and PMIU will collaborate to develop a comprehensive Project Implementation Plan (PIP). This PIP serves as the guiding reference for the PMIU as they carry out their roles and responsibilities. The EE holds the responsibility of supervising PMIU's activities, including ensuring strict adherence to the PIP and the EE's standards, policies, and procedures. The PMIU has the responsibility to regularly report the project progress to the EE. The EE will then review and submit the regular report, both the technical and financial reports, to the AE.

The PMIU will work with implementing partners to execute the project on the ground sub-contracting through third parties. MCI will enter into contractual arrangements (e.g., MOUs or service agreements) with:

- *Local Partners* (NGOs, universities, and research institutions). Potential partners include: Bintari (aquaculture, blue-green space), Pekalongan and Diponegoro University (risk assessment, aquaculture), IPB University (risk assessment, agriculture, CIS).
- *Financial institutions and cooperatives* to co-create financial instruments and supporting access to credit (e.g. ACA Insurance, BRI, Bank Jateng, PNM Mekar, Si Panen, Local Credit Union, and KOSPIN JASA are among the identified financial partners).
- *Professionals*. NGOs, technical experts, practitioners, professional associations and the private sectors that can provide technical advisory services or consultancy. This includes PT. Katata, Cognitia, Indonesian Landscape Architecture Association, and Indonesia Planners Association.
- *Community groups* will also play a key role in community empowerment activities. Among community groups that have been identified are: farmers, fish farmers, and agroforestry.

There will be some fund flow to the implementing partners to support the executing some components for the project implementation through the services agreement scheme. The pre-identified activities that will be sub-contracted are:

- CCRIA update for the Kupang watershed and CRIA development for the Sengkarang watershed, subcontracted to Diponegoro University and IPB University.
- Market system development analysis, subcontracted to Cognitia.
- Expansion of Climate Information Services (CIS), subcontracted to IPB University.
- Ecosystem services valuation analysis, subcontracted to the Indonesian Landscape Architecture Association.
- Development of demonstration plot (demplot) sites, subcontracted to Pekalongan and Diponegoro University (aquaculture), IPB University (agriculture), and Bintari (aquaculture and blue-green space).

Ministry of Finance (NDA), Ministry of Environment, Ministry Fisheries and Marine Affair, Central Java Provincial Adcovacy Government, Pekalongan City, Pekalongan Regency and Batang Regency Government, Kemitraan, Local University(es), Local NGO(s), Kemitraan

Project Steering Committee

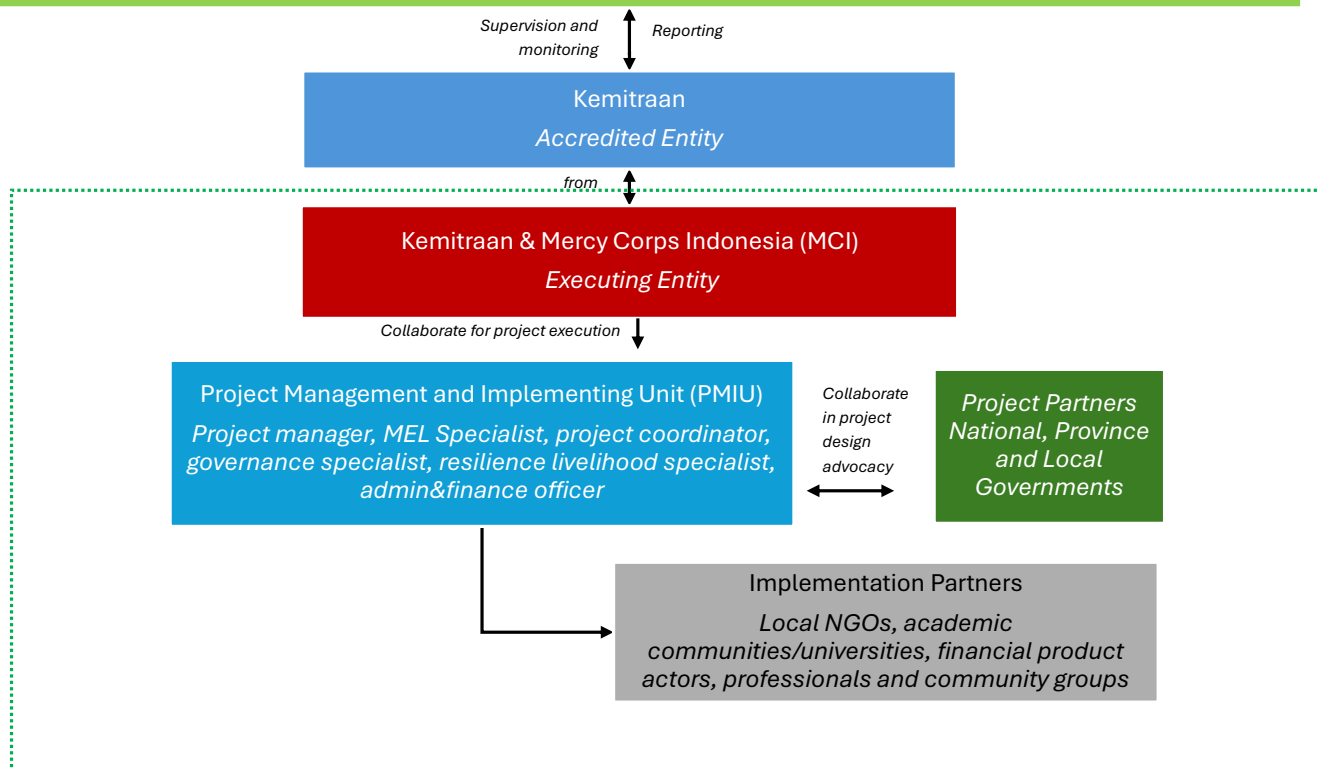


Figure 2 Implementation arrangements for the Brave Project

In addition to implementation partners, the BRAVE project will engage with project partners. We define project partners as those who will collaborate with the project in the participation process and explore advocacy opportunities. PP's role enriches project implementation by providing input during project development, such as involvement in determining priority communities/areas. These project partners encompass national, provincial, and local governments, and their collaboration will primarily revolve around shaping the project's design and advocacy efforts. During the initial stages of the project, the PMIU will initiate coordination efforts to actively incorporate their insights into the project's approach. The government actors to be involved are, but not limited to: the Ministry of Environment, the National and Regional Development Planning Agency, the Regional Water Resource Management Agency, the Regional Disaster Management Board, and the Watershed Management Board. Despite this identification, the BRAVE project will still conduct a stakeholder mapping early in the project implementation stage to further identify potential stakeholders to be involved. Figure 2 presents the implementation arrangement of the involved actors in the project.

The AE, in collaboration with the EE, will be responsible for monitoring and reporting on project performance in line with the GCF's Integrated Results Management Framework (IRMF) and the AE's internal standards. Progress will be tracked through measurable indicators, with baselines, targets, and means of verification defined in the project's results framework. Annual Performance Reports (APRs) will be submitted to the GCF Secretariat, and an mid-term and terminal evaluations will be carried out during and after project implementation. The monitoring and evaluation will be undertaken in a participatory and gender-responsive manner, aligned with national systems where feasible. Details of the IRMF, are provided in Annex 2a, while the M&E plan is in Annex 14.

The planned flow of funds of the GCF funding is shown in Figure 3 below. GCF grant proceeds will be made available to Kemitraan, as the Accredited Entity, subject to the terms and conditions of the Funded Activity Agreement. Kemitraan maintains a segregated account to receive and manage GCF funds and is responsible for financial reporting, audit compliance, and onward disbursements. Kemitraan will also take Executing Entity role by implementing particular activities under outcome 3. Based on the Implementation Agreement and periodical (in accordance with the agreement) disbursement requests, Kemitraan will transfer funds to MCI using predefined tranche mechanisms. The specific amount of each periodical disbursement request between Kemitraan and MCI will be further agreed upon, with the

primary consideration being MCI's cash flow requirements as the EE. Each disbursement will be conditioned on the delivery of verified technical and financial progress reports. MCI will manage the allocation and disbursement of funds through its internal financial management system. All transactions are subject to internal audit and compliance procedures under MCI's fiduciary standards, including procurement audits, financial controls, and external annual audits. Furthermore, the PMIU will plan and request the project's procurement to be proceeded by the procurement team of MCI, in which the latter will then carry out the procurement process as requested. The PMIU will diligently adhere to the established procurement plan, while also maintaining strict compliance with the procedures and policies of MCI as the EE.

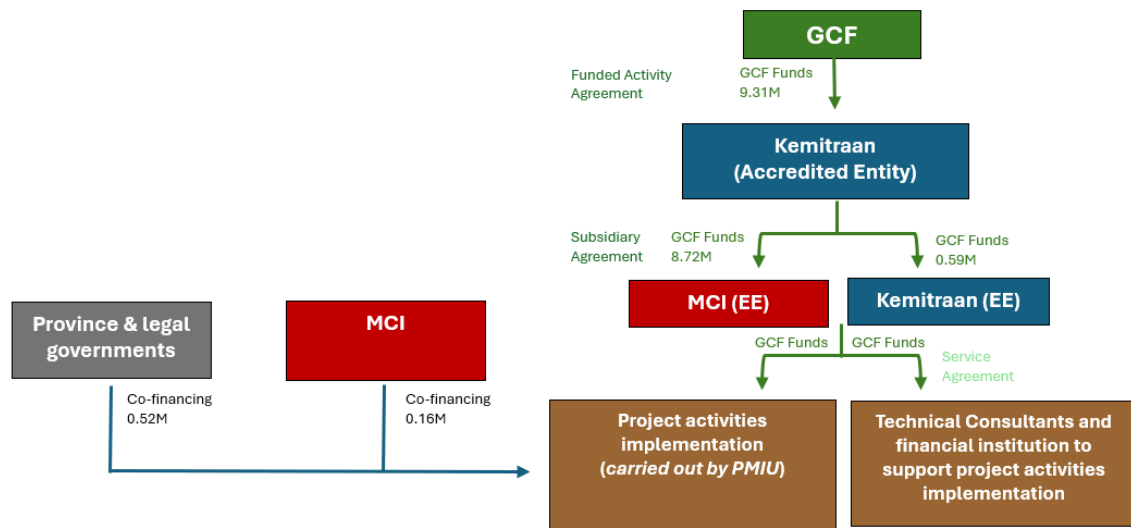


Figure 3: Flow of Funds for BRAVE Project

Kemitraan, as the AE, is accredited under GCF's basic fiduciary standards and specialized fiduciary function for project management. It has the capacity and systems in place to: monitor fiduciary integrity across financial flows, enforce environmental and social safeguard compliance, manage stakeholder engagement and grievance redress mechanisms, and ensure anti-money laundering and corruption controls. Kemitraan's oversight role ensures that all financial flows from GCF to final beneficiaries are aligned with GCF's fiduciary and accountability framework. During the implementation, the PMIU will always adhere to the policies of Kemitraan and MCI to ensure that the activities will not pose negative impacts to the involved actors, the surrounding community and environment. Kemitraan has a robust and comprehensive Social Safeguard Policy. In addition, Kemitraan will also taking role in implementing activities under Outcome 3 output 3.1, particularly activity 3.1.2 in facilitating multi-level advocacy and policy dialogues to advance the integration of Integrated Water Resources Management (IWRM) principles into local and provincial polices; and 3.1.7 to amplify the project learning and evidence to inform the climate resilience policy development at the national level. This is fully aligning with the role of Kemitraan as part of the Project Steering Committee member, leading the high-level stakeholder's engagement.

Meanwhile MCI's Code of Conduct details the standards of behavior and conduct expected from the team members. MCI's has the following policies, Sexual Exploitation and Abuse Policy; Child Safeguarding Policy; Ethics Compliant and Whistleblower Policy; covers sexual exploitation, harassment, soliciting sexual activity, child abuse and act/threat of physical violence by staff or partner. MCI also has GESI minimum standards and GESI integration toolkit that should be adhered to and used by all projects implemented by MCI.

C. FINANCING INFORMATION

C.1. Total financing

(a) Requested GCF funding (i + ii + iii + iv + v + vi)		Total Amount: <u>9,310,960</u>		Currency: <u>USD</u>		
GCF Financial Instrument		Amount	Currency	Tenor & grace	Pricing	
(i)	Senior loans	<u>Enter amount</u>	<u>Options</u>	<u>Enter years</u>	<u>Enter %</u>	
(ii)	Subordinated loans	<u>Enter amount</u>	<u>Options</u>	<u>Enter years</u>	<u>Enter %</u>	
(iii)	Equity	<u>Enter amount</u>	<u>Options</u>		<u>Enter % equity return</u>	
(iv)	Guarantees	<u>Enter amount</u>	<u>Options</u>	<u>Enter years</u>		
(v)	Reimbursable grants	<u>Enter amount</u>	<u>Options</u>			
(vi)	Grants	<u>9,310,960</u>	<u>USD</u>			
(b) Co-financing information²⁰		Total amount		Currency		
		<u>688,921</u>		<u>USD</u>		
Name of institution	Financial instrument	Amount	Currency	Tenor & Grace	Pricing	Seniority
<u>Mercy Corps Indonesia</u>	<u>In-kind</u>	<u>165,158</u>	<u>USD</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>PemKab Pekalongan</u>	<u>In-kind</u>	<u>205,975</u>	<u>USD</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>PemKot Pekalongan</u>	<u>In-kind</u>	<u>157,950</u>	<u>USD</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
<u>PemProv Jateng</u>	<u>In-kind</u>	<u>159,838</u>	<u>USD</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
(c) Total investment (c) = (a)+(b)		Amount <u>9,999,881</u>		Currency <u>USD</u>		
(d) Co-financing ratio (d) = (b)/(a)		<u>6.89%</u>				
(e) Other financing arrangements for the project/programme (max ½ page)		<u>N/A</u>				

C.2. Financing by component

²⁰ If the co-financing is provided in different currency other than the GCF requested, please provide detailed financing information and a converted figure in the GCF requested currency in the comment box. Please refer to the date when the currency conversion was performed and the reference source.

Please provide an estimate of the cost per component (in line with Components described in Section B.2.1 above) and disaggregate by sources of financing as Annex 3. Also, ensure consistency with the Logical Framework (Annex 2a) and Timetable (Annex 2b) of the project/programme.

Component	Output	Indicative cost Options	GCF financing		Co-financing		
			Amount Options	Financial Instrument	Amount Options	Financial Instrument	Name of Institutions
Outcome 1 The development planning processes in Sengkarang and Kupang watersheds are participatory and climate-informed	Output 1.1 The targeted communities and project stakeholders have access to integrate climate-based evidence for climate resilient planning	390,428	367,311	Grant	21,875	In-kind	Mercy Corps Indonesia
					1,242	In-kind	PemKab Pekalongan
	Output 1.2 Community-based climate change adaptive management plans and designs have been developed to enhance community resilience	931,383	897,953	Grant	6,437	In-kind	PemProv Jateng
					9,493	In-kind	PemKab Pekalongan
					17,500	In-kind	Mercy Corps Indonesia
	Outcome 2 Communities in the targeted watersheds implement climate-resilient livelihoods and integrated watershed/runoff management practices that reduce climate-related risks	4,389,003	4,308,477	Grant	15,518	In-kind	PemKab Pekalongan
					7,005	In-kind	PemKot Pekalongan
					7,128	In-kind	PemProv Jateng
					50,875	In-kind	Mercy Corps Indonesia
	Output 2.2 Integrated runoff management and flood preparedness systems established in targeted sub districts	847,795	780,355	Grant	23,671	In-kind	PemKab Pekalongan
					41,077	In-kind	PemKot Pekalongan
					2,692	In-kind	PemProv Jateng
Outcome 3: Enabling environment to replicate and scale-up climate-resilient IWRM exists	Output 3.1 Government stakeholders (national, provincial, district, and sub-district	1,011,216	605,216	Grant	156,051	In-kind	PemKab Pekalongan
					106,368	In-kind	PemKot Pekalongan
					143,581	In-kind	PemProv Jateng

	levels), academia, private sector, community and media are informed of best practices of climate-resilient and climate-informed livelihood options, and policy recommendations						
	Output 3.2 Communities in the targeted watersheds have access to supports with climate-resilient livelihood business models and finance	1,126,963	1,085,963	Grant			
					3,500	In-kind	PemKot Pekalongan
					37,500	In-kind	Mercy Corps Indonesia
MEL and CARM	Baseline evaluative data collections and alignment the MEL system with GCF framework	19,680	19,680	Grant			
	Regular monitoring and data collection against logframe indicators and annual assessment	112,400	112,400	Grant			
	Midline evaluative data collections	19,680	19,680	Grant			
	Assessment and build capacity of the project team in monitoring, reporting and evaluation to support project improvement	95,900	95,900	Grant			
	Stakeholder consultations for evaluation purposes	50,000	50,000	Grant			
	Endline evaluative	13,120	13,120	Grant			

	data collections						
	MEL Staff	64,555	64,555	Grant			
	CARM Sensitization Workshop with integrated beneficiary feedback mechanisms for evaluation purpose	56,200	56,200	Grant			
	CARM and MEL visibility	37,898	37,898	Grant			
Contingency Fund		333,666	333,666	Grant			
PMC		499,994	462,586	Grant	37,408	In-kind	Mercy Corps Indonesia
Indicative total cost (USD)		9,999,881	9,310,960		688,921		

C.3 Capacity Building and Technology development/transfer

The BRAVE project will strengthen community capacity through the formation of climate-resilient community groups and targeted training on risk-informed planning, gender-sensitive approaches, and the use of climate information. Climate-smart field schools will build farmers' and fish farmers' skills in resilient agriculture and adaptive aquaculture, while farmer groups will receive support in financial and business management to function as aggregators. Communities will also be trained in flood preparedness and response to enhance local disaster risk management.

C.3.1 Does GCF funding finance Capacity building activities?

Amount: 1,123,407 USD

C.3.2. Does GCF funding finance Technology development/transfer?

C.4. Justification for GCF funding request (max. 500 words)

Rationale for GCF funding. Indonesia faces significant challenges in mobilizing sufficient finance for climate adaptation. Current government budgets are not sufficient to cover the investment required for climate adaptation, leaving a substantial financing gap to be filled. This gap is increasing. Most public funding is directed toward post-disaster reconstruction and hard-structure flood control measures, such as seawalls, spillways, and river channelization, with limited attention to preventive, ecosystem-based, or livelihood-centered resilience measures. This funding bias results in residual losses being borne by vulnerable communities, exacerbating financial insecurity and reinforcing existing socio-economic inequalities. The CRIA undertaken highlights how these communities are disproportionately exposed to flood risks and have limited resources to undertake adaptation measures independently. While some decision-makers acknowledge the importance of integrating ecological and livelihood functions into flood management, policy and investment priorities remain dominated by structural interventions and fragmented approaches. The link between flood resilience and sustainable livelihoods is under-addressed, leaving a critical gap in adaptation finance and institutional frameworks. This gap is particularly urgent given that climate change is projected to intensify flooding and disrupt local economies, amplifying both direct and secondary impacts on communities. Without strategic interventions, communities will continue to face recurrent losses, undermining long-term development and resilience objectives.

Constraints to alternative financing options. The BRAVE project explored alternative financing mechanisms, including government funds, loans, and private sector investment, but found these largely unfeasible due to structural, financial, and institutional barriers:

1. *Limited public financing and structural bias:* Local governments continue to prioritize structural flood defenses, largely overlooking ecosystem-based interventions and community-focused resilience measures. Budgeting

frameworks reinforce this bias, leaving minimal room for innovation in preventive, non-structural approaches. The BRAVE project aims to shift this perspective by generating robust evidence demonstrating the value of ecosystem and livelihood interventions, thereby encouraging public investment in more integrated and community-centered approaches.

2. *Central government fiscal policies impacting national, provincial and municipal expenditures.* In January 2025, President Prabowo Subianto issued Presidential Instruction Number 1 of 2025, mandating a nationwide budget efficiency initiative. This directive led to a reduction of approximately IDR 306.7 trillion (USD 19.8 billion) across various government sectors. At the provincial and municipal level, this has created a growing financing gap for preventive adaptation measures, particularly those targeting ecosystem and livelihood resilience, which are not immediately visible as high-priority investments.
3. *Capacity limitations:* Local and national governments lack the technical and institutional capacity to generate or translate science-based evidence into actionable, local-scale adaptation plans. Robust data on hydrological systems, ecosystem functions, and livelihood vulnerabilities are scarce. GCF support is critical to fill these gaps, enabling the translation of scientific insights into policy guidance and practical interventions that are both effective and locally appropriate.
4. *Private sector risk aversion:* Transformative livelihood models, such as climate-smart agriculture, adaptive aquaculture, and sustainable forest management, require iterative testing and refinement. Until these models are proven, private investors perceive them as too high-risk ventures. The BRAVE project employs a piloting approach that allows for adaptive learning and iterative development. Concessional funding from GCF is essential to reduce perceived risk and unlock subsequent private investment, creating pathways for sustainable market-based solutions that support both resilience and livelihoods.
5. *Need for a neutral facilitator:* Structuring innovative financing mechanisms for community centered adaptation requires a neutral third-party convener to coordinate among government agencies, local communities, and private actors. The GCF grant allows PMIU, on behalf of MCI as the executing entity, to assume this facilitative role, bridging gaps in stakeholder engagement, aligning interests, and fostering collective ownership of resilience solutions. This platform is crucial to mobilize co-financing, structure investment opportunities, and ensure that adaptation measures are socially inclusive, environmentally sustainable, and financially viable.

Strategic fit and added value of GCF. The BRAVE project aligns directly with the GCF's mandate and strategic objectives in several ways:

- *Supports climate adaptation and resilience* at both community, sub national and landscape levels. By addressing flood resilience through ecosystem-based approaches and climate-resilient livelihoods, the project targets the core vulnerabilities of exposed communities.
- *Promotes integrated water resource management.* The project considers the interconnections between watershed health, flood regulation, and sustainable livelihoods, enabling a shift from sectoral and reactive flood management to landscape-wide, proactive adaptation planning.
- *Introduces climate-compatible technologies and practices,* including impact-based forecasting, landscape resilience assessments, blue-green space, climate-smart agriculture, and adaptive aquaculture. These innovations allow communities to anticipate and respond to climate risks, strengthening both ecological and economic resilience.
- *Catalyzes private sector engagement in adaptation.* The project builds pathways for scalable, climate-resilient enterprises. Once proven, these models can attract private investment, creating sustainable markets and leveraging public funding. GCF support is crucial to de-risk these early-stage interventions, unlocking broader investment potential.
- *Delivers social, economic, and environmental co-benefits,* including gender-responsive outcomes, enhanced community livelihoods, and ecosystem restoration, directly contributing to inclusive and sustainable development objectives.

Given the magnitude of financial, technical, and institutional barriers to community centered flood resilience in Indonesia, the GCF is uniquely positioned to provide grant-based, risk-mitigated financing. The GCF support addresses the limitations of government budgets, compensates for private sector risk aversion, and catalyzes integrated, landscape-level interventions that are currently underfunded. By providing upfront capital and technical support, the BRAVE project enables a shift toward ecosystem-based and livelihood centered adaptation, creating scalable models

for sustainable flood resilience. The estimated cost for all activities are thus considered as incremental costs, which in total is equal to the amount of grant requested from GCF.

Private sector contributions will be integrated into the project design as part of the business models that are developed in BRAVE's implementation phase, particularly under the project activity in developing bundled business models and expanding access to market and finance for farmers. BRAVE will also engage private co-financier (e.g. Bank Rakyat Indonesia, Bank Jateng) as an executing entity for loan financing.

C.5. Exit strategy (max. 300 words)

The BRAVE project is designed to ensure that climate resilience outcomes continue well beyond the project lifetime. The exit strategy is built on five mutually reinforcing pillars: strengthening local capacity and institutional ownership, securing operations and maintenance of key investments, ensuring financial sustainability through private sector engagement, embedding a paradigm shift in planning and governance, and post-exit actions for monitoring and accountability.

Strengthening local capacity and institutional ownership. The project will localize climate information and translate it into formats accessible to farmers, fishermen, and MSMEs. Training will equip communities and local governments with the skills to apply this information in planning and decision-making. At community level, a participatory climate-resilient livelihood transformation plan will act as the reference document to further foster resilient livelihoods in their area. The plans will be developed and integrated into Village Development Plans (RKPDs), ensuring any measures are embedded in policy and resource allocation. Alignment with Indonesia's NDCs, NAPs, RPJMN and climate resilient policies will further embed climate resilience into provincial and national frameworks. **Operations and maintenance.** Key investments such as CIS, and blue-green infrastructure will be taken over to capable institutions, including municipal agriculture agencies, marine and fisheries agencies, and communication and information agency. The project will carefully select the most appropriate agency to be the host of the system, by considering their technical capacity, financial capacity to operate the system and also their network with local actors. The latter consideration point is to ensure that the system will continue to benefit broader stakeholders and not the host solely. These agencies will be trained in operations and maintenance, with budget lines advocated for inclusion in local government financing cycles. MoUs will formalize responsibilities, while local universities and NGOs will provide ongoing technical backstopping.

Financial sustainability and private sector engagement. BRAVE supports closed-loop agricultural and aquaculture models that are profitable, climate resilient, and market-driven. The model would not only support the farmers by improving their productivity but also serve the business interests of each actor involved. 'Champion' companies will be selected that are motivated to drive changes forward. MCI has the expertise and experience in working with such actors on climate-resilient agriculture. By linking farmers and fishers with off-takers, input providers, technical professionals, processors, and financial institutions, these systems reduce risk and guarantee continued market access. Bundled service packages of microfinance, technical advice, and input access will strengthen the bankability of enterprises. The demonstration of viable models will further attract private sector investment and enable replication, ensuring that financial sustainability is market-led rather than donor-dependent.

Contribution to paradigm shift. BRAVE drives a shift from reactive disaster response to proactive, ecosystem-based risk management and resilient livelihoods. The project mainstreams IWRM principles, institutionalizes community-led planning, and aligns with Indonesia's long-term climate and development priorities. This embedding of resilience into governance and market systems ensures systemic change that outlasts the project.

Post-exit actions and monitoring. A basic monitoring system will be sustained by community groups and local institutions to track resilience gains. Separate Monitoring and Evaluation indicators for the exit strategy will be developed and included in the Monitoring and Evaluation Plan to assess the progress of the project. After exit, public agencies will assume financing and oversight roles, while academia and civil society provide accountability and technical support. Knowledge-sharing and policy advocacy will ensure replication across other watersheds and provinces.

Through these measures, BRAVE creates a transition from GCF-supported implementation to nationally owned and community-driven continuation. The project's exit strategy guarantees that its benefits, climate-resilient livelihoods, improved governance, and sustainable ecosystems, are maintained and scaled, contributing to Indonesia's broader climate resilience transformation.

C.6. Financial management/procurement (max. 300 words)

KEMITRAAN conducts all business and accounting activities in accordance with generally accepted accounting principles and the prevailing financial accounting standards in Indonesia. The organization applies a system of double-entry bookkeeping alongside fund accounting to accurately record and classify all business transactions. In fund accounting, resources are classified according to the specific activities or objectives outlined by donors, regulations or limitations imposed by external sources, and directives from the Board of Executives. Registered as an Indonesia national entity, KEMITRAAN follows the Indonesian accounting standards known as PSAK (Pernyataan Standard Akuntansi Keuangan), which is an adoption of IFRS since 2012 – PSAK is translated as Statements of Financial Accounting Standards, issued by the Institute of Indonesia Chartered Accountants. The Project reporting will therefore use the PSAK as the accounting standards and will be audited by the Public Accounting Firm. The Public Accounting Firm must follow the SPAP (Standard Profesional Akuntan Publik or Professional Standards for Public Accountants) issued by the Indonesian Institute of Certified Public Accountants when auditing financial statements in Indonesian. The Indonesian auditing standards (SPSP) however is an adoption of the ISA (International Standards of Auditing) issued by IAASB.

KEMITRAAN uses the accrual basis accounting method to ensure that revenues and expenses are recognized when earned or incurred, providing a true reflection of the organization's financial position. To support accurate and real-time reporting, KEMITRAAN employs a range of integrated systems, including the SUN System for core accounting and financial management, HRIS for human resources, SPARK for procurement, MILA for grant accounting, and TRACY for program management and reporting. These tools collectively enable timely, reliable, and transparent monitoring of financial, administrative, and program activities. The organization has established and maintains a robust internal control framework to ensure compliance with financial and accounting regulations. Audits are conducted periodically to verify adherence to policies and assess performance. Organizational audits occur annually, while project-specific audits are carried out as required based on program or donor needs. The Director, Head, or Senior Manager responsible for operations and finance oversees the maintenance and updating of this policy, subject to approval by the Executive Director. The Finance Manager manages and administers the policy in relation to all financial matters, ensuring that processes are followed consistently across the organization.

Procurement of goods, services, works, or programs is conducted in a fair, competitive, and transparent manner to ensure the organization obtains the best value for money. The selection process is designed to uphold principles of transparency, accountability, effectiveness, efficiency, and participatory engagement, following clearly defined procedures. In general, a competitive process involves at least three qualified prospective bidders or proposers, except in cases of low-value procurement up to IDR 5 million, where direct purchase may be exercised. To ensure proper control and accountability, there is a clear separation of duties among the requestor or user, the buyer, and the payer for all purchases or contracts. KEMITRAAN maintains and regularly updates a database of vendors or institutions, preferably in electronic form, to facilitate the efficient and appropriate selection of suppliers. Where beneficial for operational efficiency and procurement management, KEMITRAAN may enter into long-term contract agreements with selected vendors or organizations, provided that these agreements are established through a competitive and transparent process. KEMITRAAN manages its funds in full compliance with accounting principles and strives to use resources efficiently and effectively. The organization is committed to delivering impactful outputs that align with donor intentions, while consistently implementing risk-based management practices to safeguard resources and optimize the use of funds.

For this project Kemitraan accepts the procurement policies of MCI. MCI has comprehensive Guidelines and SOP that implement Segregation of Duties, the application of procurement principles such as best value for money, fraud prevention, transparency, compliance with laws and regulations, implementation of safeguarding, a Code of Conduct, and other provisions listed in the Procurement Guideline. As a fulfilment of these provisions, MCI enforces the following:

The procurement process aligns with its threshold; the higher the threshold, the more complex the process and the higher the risk, thus requiring stricter regulations.

For routine/recurring needs, and in order to save time while maintaining transparency and accountability, MCI has specific provisions utilizing a Master Service Agreement (MSA) and a Master Purchase Agreement (MPA). The vendor selection for these agreements is conducted through a tender process (even if the value does not meet the standard tender threshold) with a maximum contract period of two years. Examples of such procurements include the selection of a travel agent and an internet service provider.

The procurement process always incorporates the Code of Ethics / Safeguarding provisions, whereby every contract must include these stipulations and be signed by the vendor/consultant. These provisions protect all parties and serve as a form of transparency regarding the values upheld by MCI. MCI provides a dedicated channel if any provision is

violated or harms an involved party during the execution of activities or procurement. The contract and tender process always list the integrity hotline which can be accessed by anyone.

If an error/mistake occurs in the procurement process that is not compliant with the procedure, MCI also has rules that must be followed: detailing the deviation (non-compliance with the rules) and outlining the corrective measures to prevent recurrence. This error must be brought to the attention of the Executive Director so that it can be accounted for during the audit. See Annex 9 outlining the procurement plan.

D. EXPECTED PERFORMANCE AGAINST INVESTMENT CRITERIA

D.1. Impact potential (max. 300 words)

The project is designed to significantly enhance climate-resilient sustainable development across the Kupang and Sengkarang watersheds by integrating ecosystem-based landscape management, climate-resilient livelihoods, inclusive governance, and policy integration. By addressing multiple dimensions of climate risk, the project will strengthen household adaptive capacity, improve ecosystem functions, and create enabling conditions for replication and scaling-up of resilience strategies. The interventions are carefully tailored to deliver measurable outcomes at the household, community, landscape, and governance levels, while also contributing to low-emission sustainable development pathways.

Direct household-level impact. The project directly targets 520 households (~2,080 people) to adopt climate-smart agriculture and adaptive aquaculture practices. Interventions include Farmer Field Schools, demonstration plots for coffee, carrots, grouper, and milkfish, and participatory training linking climate information with practical production decisions. These measures will improve agricultural productivity and fish yields under changing climate conditions, while reducing vulnerability to extreme weather events. It is expected that through behavior change, 1165 people will adopt adaptation benefits climate resilient livelihood practices. In addition, 5,900 households (~23,600 people) will benefit from ecosystem management interventions, including soil and water conservation, upstream land-use planning, and participatory conservation plans. It is expected that through behavior change and operationalization of conservation plans, 14,160 people will adopt adaptation benefits through conservation measures.

Community-level resilience and flood risk reduction. The project will support the formation of and build capacity of 33 climate-resilient community groups (one per village, 15 members each) to integrate climate risk assessments, gender-sensitive planning, and CIS data into plans and decision-making. A total of 495 community members will receive targeted training, embedding inclusive, locally-led adaptation at the village level. To reduce climate-induced flood risk, the project will establish four blue-green spaces, integrating hydrological and landscape design, monitoring systems, and community-based governance structures. These spaces will attenuate runoff, lower peak flood discharge, and protect downstream communities. Complementary interventions include four sub-district contingency plans and training of 400 people (≥40% women and vulnerable groups) in early warning, evacuation, and flood response procedures. Together, these measures will directly reduce flood frequency and risk and generate adaptation benefits for 121,036 people living in six downstream sub-districts.

Landscape and ecosystem management. At the landscape scale, the project will bring 3,700 hectares of productive land under improved, climate-informed management through participatory land-use planning, conservation measures, and ecosystem service valuation. These interventions will improve water retention, reduce surface runoff, enhance soil health, and maintain biodiversity, generating long-term co-benefits for both livelihoods and ecosystems. Participatory land-use and water resource management plans will ensure resilience is systematically embedded in watershed governance, reducing downstream flood impacts while supporting sustainable natural resource use.

Livelihood business models and market systems. To ensure sustainability and wider replication, the project will develop and operationalize commodity-specific business models (grouper, milkfish, coffee, carrot), linking farmers and MSMEs to input suppliers, service providers, and off-takers. Under these business models, approximately 400 farmers and fishpond farmers will gain access to financial services, including single and/or blended financial products such as micro-insurance, micro loans/credits, and bundled crop insurance and credits, etc., as part of a closed-loop model scheme. These models will encourage the widespread adoption of climate-resilient practices by providing clear market incentives. It is expected that around 180 farmers and fishpond farmers will access a single financial product, while 220 farmers and fishpond farmers will access a blended financial product, supported by technical advisory services, financial literacy activities, and the dissemination of lessons learned. These activities will improve financial literacy, strengthen adaptive decision-making, and create conditions for replication of climate-smart practices across the watershed. Assuming an average loan size of IDR 5 million per beneficiary, participants are expected to build savings over a two-year period at IDR 100,000 per month, while also enrolling in parametric insurance with an annual premium

of IDR 500,000 for two years, as part of the bundled financial services package. Based on this structure, the BRAVE program is expected to facilitate total lending of IDR 375,000,000–566,000,000 (USD 22,727–34,305), mobilize savings of IDR 288,000,000–432,000,000 (USD 17,455–26,182), and generate parametric insurance premium payments of IDR 120,000,000–180,000,000 (USD 7,273–10,909). This financing component will be pursued from the third year of implementation onward, aligned with the maturation of the closed-loop business model scheme. Overall, the project is expected to catalyze IDR 808,000,000–1,178,037,736 (USD 48,970–71,396) in total private sector financing over five years

Indirect and governance level impact. At the governance level, the project will co-develop one climate-resilient IWRM framework, operationalize sector-specific decision-making tools (CIS), and integrate IWRM principles into three local/provincial policies, creating an enabling environment for long-term, systemic adoption of resilience measures. Through these governance and policy interventions, approximately 1,203,347 people in Pekalongan City, Pekalongan Regency, and Batang Regency are expected to indirectly benefit from better water resource management, scaled-up livelihood business models, and climate-informed governance systems.

Results Level	Key Indicators	Targets / Impact Numbers
Direct household-level impact	People adopting climate-smart agriculture and adaptive aquaculture	Adaptation benefits: 1165 people, men: 699, female: 466) adopt CSA and adaptive aquaculture practices
	People benefiting from conservation and ecosystem management measures	Adaption benefits: 14,160 people, men: 8,496, female: 5,664 benefits from soil and water conservation, upstream land management, participatory conservation plans (≥40% women)
Community-level resilience and flood risk reduction	People are benefiting from reduced flood risk and improved runoff management	Adaption Benefits: 121,036 people, men: 72,622, female: 48,414) benefit from 4 blue-green spaces and contingency plans (≥40% women)
	Sub-district contingency plans developed and operational	4 sub district level contingency plans developed; 400 people trained (≥40% women and vulnerable groups)
	Climate-resilient community groups formed and capacitated	33 community groups (15 members each); 495 trained members (men: 297, female 198) (≥40% women)
Landscape and ecosystem management	Area of productive land under improved climate-informed management	3,700 hectares under improved management practices
Livelihood business models and market systems	Commodity-specific climate-resilient business models developed & adopted	4 business models developed & adopted (grouper, milkfish, coffee, carrot)
	Farmers accessing financial products (savings, credit, insurance)	400 farmers (men:240, female: 140) access financial products; 18 farmer/fish-farmer groups receive technical advisory services
Governance and policy enabling environment	IWRM framework co-developed & adopted	1 climate-resilient IWRM framework adopted
	Local/provincial policies integrating IWRM principles	3 local/provincial policies integrate IWRM principles
Indirect Impact	Households benefiting indirectly from replication and scale-up	Adaption Benefit: 1,203,347, men: 597,596, female: 605,751 people) indirectly benefit

D.2. Paradigm shift potential (max. 300 words)

The BRAVE project is designed to catalyze a fundamental transformation in how communities, governments, and markets respond to climate risks, embedding climate resilience across the Kupang and Sengkarang watersheds. The theory of change is based on the premise that empowering communities with climate information, demonstrating scalable resilient livelihood models, and embedding these interventions into governance systems and markets will bring about a systemic change, beyond a one-off investment, resulting in long-term resilience, reduced vulnerability, and sustainable development.

The TOC goal statement:

IF communities, local governments, and market actors access and apply climate information to guide land use planning, water management, and climate-resilient livelihood practices across the Kupang and Sengkarang watersheds, AND IF enabling policies, institutions, and market systems support these practices,

THEN households and ecosystems across the upstream, midstream, and downstream areas will experience sustained reductions in climate-induced flood and water-related risks, stronger and more diversified livelihoods, and improved watershed resilience,

BECAUSE risk-informed decisions, integrated watershed governance, and climate-resilient value chains collectively address the underlying drivers of vulnerability—such as degraded land, unmanaged runoff, weak institutional coordination, and fragile local economies—resulting in systemic, scalable, and long-term adaptation benefits.

At the activity level, BRAVE helps translate climate information into accessible, context-specific knowledge products for farmers, fish farmers, and decision-makers. It delivers targeted training through CSA field schools, demonstration plots for key commodities (coffee, carrots, grouper, and milkfish), and practical capacity-building on adaptive aquaculture and soil-water conservation. At the institutional level, the project facilitates participatory development of climate-resilient livelihood transformation and land use plans and integrates them into Village Development Plans, ensuring continuity and ownership. Complementary outputs include the establishment of four dual-purpose blue-green spaces, designed using hydrological modeling to attenuate runoff, reduce downstream flooding, and enhance ecosystem services. Sub-district contingency plans and community training strengthen preparedness. The project also develops four commodity-specific climate-resilient business models, links MSMEs to markets and financial services, and pilots bundled service schemes that combine technical advice, market access, and financial products.

Outcomes and transformational pathways. Collectively, these activities generate outcomes that move beyond project-specific benefits toward systemic resilience:

- *Empowered communities:* Households evolve from passive recipients of aid to informed, proactive managers of climate risk. Through risk-informed decision-making platforms and participatory planning, communities adopt CSA and adaptive aquaculture practices, diversify income streams, and invest in flood-proofing and other adaptive measures.
- *Institutionalized resilience:* Local governments adopt climate-resilient planning tools, mainstream IWRM into development plans, and coordinate across administrative boundaries. This creates durable governance frameworks for climate risk reduction and watershed management.
- *Private sector engagement:* MSMEs and local financial institutions adopt climate-resilient business models, de-risk investments, and expand climate-smart value chains, making resilience economically viable and scalable.

BRAVE is designed to produce broad, replicable impacts:

Scaling up: Participatory planning processes, pilot demonstrations, and market-proven resilient livelihood models create clear pathways for adoption in other areas.

Replication: Replication potential is high: the project demonstrates tested business models, participatory planning processes, and risk-informed governance structures that can be replicated across Indonesia's other critical watersheds. Innovations such as impact-based forecasting, dual-purpose blue-green spaces, and closed-loop agriculture/aquaculture systems can be adapted by other communities and local governments.

Knowledge sharing: Lessons, tools, and innovations, such as impact-based forecasting, closed-loop agriculture/aquaculture, and dual-purpose blue-green spaces, are systematically documented and disseminated, creating a multiplier effect across neighboring villages, districts, and even other watersheds. For more effective dissemination and broader reach, the establishment of various discussion forums by from the previous ZCRA program can be optimized, such as spatial management forums, disaster management forums, CSR forums, watershed management forums, and coastal management forums. Regarding media channels, both conventional and digital, several networks established by ZCRA can also be continued. Mainstream media channels (CNN Indonesia, BBC Indonesia, Tribun Jawa Tengah, Radar Jawa Tengah, etc.) and online media (mongabay, Tanahair.net, etc.) will be maintained to maximize the impact.

An enabling environment is fostered through sustained policy advocacy, integrating IWRM and resilience principles into three local and provincial policies, strengthening institutional mandates, and creating incentives for continued

investment in climate-smart solutions. Financial inclusion measures help sustain household adaptation efforts and encourage private-sector engagement.

Contribution to climate-resilient development pathways. By embedding evidence-based decision-making, ecosystem-based flood management, and climate-resilient livelihood practices into community and government systems, the BRAVE project fosters long-term, durable change that aligns with Indonesia's National Action Plan for Climate Change Adaptation (RAN-API) and supports national Second NDC targets. BRAVE transforms development pathways from reactive and fragmented approaches into proactive, integrated, and inclusive climate-resilient planning. It leaves behind strengthened governance, finance, and market systems capable of sustaining and scaling resilience interventions well beyond project closure. Through these mechanisms, BRAVE demonstrates a paradigm shift toward systemic, climate-resilient sustainable development that benefits communities, ecosystems, and institutions.

D.3. Sustainable development (max. 300 words)

The BRAVE project will generate environmental, social, economic, and gender-sensitive development co-benefits, contributing to multiple Sustainable Development Goals (SDGs), including SDGs 5, 8, 11, 12, 13, and 15. These co-benefits arise as additional positive outcomes of the project's interventions, beyond the primary objective of reducing climate vulnerability in the Petanglong watershed.

Environmental co-benefits. Beyond strengthening climate resilience, BRAVE will generate environmental improvements through enhanced ecosystem stewardship and sustainable resource management. Adoption of climate-smart agriculture and adaptive aquaculture will encourage reduced reliance on chemical inputs, supporting better water quality in rivers and ponds. Blue-green spaces will create greener surroundings, contributing to biodiversity protection and improved micro-climatic conditions. These environmental co-benefits support ecosystem health while also providing long term ecological services such as improved water regulation and habitat connectivity.

Social co-benefits. The project will strengthen community organization, knowledge sharing, and collective resource management beyond the immediate climate adaptation benefits. Participatory planning processes and the formation of community groups will enhance local governance capacity and social cohesion, enabling communities to collaborate on water management, livelihood planning, and risk reduction. Capacity-building activities will increase technical knowledge and skills supporting long-term community leadership. Participatory planning platforms will also enhance community awareness and decision-making capacity, contributing to more inclusive and transparent local governance processes.

Economic co-benefits. BRAVE will contribute to strengthening local value chains and market linkages for climate-resilient agricultural and aquaculture commodities. The development of bundled service models and market system linkages will improve producer access to technical services, finance, and off-takers, enhancing the efficiency of local production systems. The project will also support entrepreneurship and diversification of local livelihoods, including value added activities and new service roles within community groups and producer networks. These economic co-benefits can stimulate local job creation, improved business skills, and stronger local market ecosystems, creating conditions for sustained economic growth beyond the project duration.

Gender sensitive development co-benefits. BRAVE integrates gender equality and social inclusion through participatory planning, targeted capacity building, and equitable access to livelihood opportunities. Gender-responsive training and livelihood support will strengthen women's economic participation, particularly in value added activities and small-scale enterprise development. Implementation of the Gender Action Plan (Annex 4) will also strengthen awareness of gender equality among local institutions and communities, contributing to more inclusive governance and improved recognition of women's roles in natural resource management.

The project's environmental and social risk assessment concluded that the proposed activities pose minimal environmental, social, and institutional risks, as they are small-scale, localized, and manageable through appropriate mitigation measures. An Environmental and Social Action Plan has been prepared to guide risk mitigation and safeguard compliance (Annex 10).

By generating these additional environmental, social, economic, and gender benefits alongside its core climate resilience objectives, the BRAVE project contributes to sustainable development outcomes that extend beyond climate adaptation, strengthening the long-term sustainability and scalability of interventions across the watershed.

D.4. Needs of recipient (max. 300 words)

According to the World Bank Climate Change and Development report for Indonesia²¹ the eastern and western portions of Indonesia's most densely populated island, Java, as well as the coastal regions of Sumatra, parts of western and northern Sulawesi, and southeastern Papua islands are all highly vulnerable to multiple climate hazards, including drought, floods, landslides, and sea level rise. According to a vulnerability mapping exercise conducted for Southeast Asia, the western and eastern parts of the island of Java are considered hotspots for the impacts of multiple climate hazards²². As further highlighted under Indonesia's PBI policy, Central Java Province is projected to experience the highest climate-related GDP losses in the coastal subsector and the third highest in agriculture²³.

At the project level, MCI/ZFRA's CRIA shows that the economic impacts of climate change in the Kupang watershed and in the coastal villages of Sengkarang watersheds are already significant and projected to rise sharply. A 2020 analysis of 42 high-flood-risk villages estimated total annual losses from flooding at approximately USD110.7 million, including damage to infrastructure such as roads and repeated household repairs like raised floors and flood-damaged homes. Additional losses from reduced productive land, primarily used for agriculture and aquaculture, were valued at around USD24 million, bringing total annual losses to USD 134.7 million. These costs exceed the capacity of local budgets, forcing municipalities to divert funds from other development priorities to finance ongoing recovery and repair efforts. It was projected that 42 villages/kelurahan will have high and very high-risk profiles in 2035, and more than 5,700 hectares in 38 of the villages/kelurahan will be permanently inundated, with a projected annual loss increasing considerably at USD2.2billion. The permanently inundated area covers settlement, agricultural land, and fishponds located in Pekalongan City and the coastal parts of Pekalongan Regency.

The project responds to economic and social development needs by targeting areas in Petanglong where climate-induced flooding poses severe socio-economic risks, particularly for vulnerable communities reliant on agriculture, aquaculture, and fisheries. Among BRAVE's intervention areas, 10 villages, are projected to face high to very high flood hazard levels and 9 villages with high to very high flood risk levels. BRAVE addresses these vulnerabilities by promoting climate-resilient agriculture and aquaculture, strengthening ecosystem-based flood management, and supporting diversified livelihoods to reduce dependence on flood-prone land. These measures aim to lower vulnerability at both household and community levels, delivering tangible economic, social, and environmental benefits while creating a model that can be replicated in other high-risk areas across Central Java. Annual flood-related losses in high-risk villages are estimated at USD 134.7 million, straining local budgets and limiting development investments. By combining adaptive agriculture, aquaculture, watershed management, and inclusive livelihood diversification, BRAVE helps strengthen local economies and enhance social resilience, empowering women, youth, and marginalized groups through participatory planning, capacity-building, and community-led institutions.

There is an absence of alternative sources of financing. Local governments in the affected districts face constrained budgets and competing priorities. Structural flood protection measures outlined in national and provincial plans are insufficiently funded, and municipalities lack the financial capacity to implement integrated water resource management, livelihood adaptation, and ecosystem-based interventions. Private capital is limited due to insufficient market mechanisms for climate-resilient investments. BRAVE fills this financing need by leveraging Adaptation Fund resources and mobilizing private sector participation through its market systems development approach, establishing sustainable investment pathways that would otherwise remain unavailable to local communities.

BRAVE recognizes the need for strengthening institutions and implementation capacity. Effective flood risk management and climate adaptation require strong institutional coordination, technical expertise, and local engagement. BRAVE strengthens capacities at multiple levels by supporting local government planning, multi-stakeholder governance, and technical training in climate-smart agriculture, adaptive aquaculture, and watershed management. The project builds on the lessons and institutional arrangements of MCI/ZFRA and other Adaptation Fund initiatives, ensuring continuity and scalability. Knowledge-sharing platforms, participatory monitoring, and collaborative governance mechanisms will reinforce institutional learning, enabling local governments and communities to respond proactively to climate risks while ensuring long-term sustainability.

D.5. Country ownership (max. 500 words)

²¹ World Bank Group. (2023, April 28). Indonesia Country Climate and Development Report. World Bank Publications (Report No. 39750). Washington, DC: World Bank Group.

²² <https://climateknowledgeportal.worldbank.org/country/indonesia/vulnerability>

²³ National Development Planning Agency, 2021. Executive Summary: Climate Resilience Development Policy 2020-245

Country ownership is embedded in the BRAVE project, from its co-design to its implementation arrangements.

The proposal was developed in close partnership with the Government of Indonesia, including the National Designated Authority (NDA), the Ministry of Environment (KLH), as well as provincial and local governments in Central Java, Pekalongan City, Pekalongan Regency, and Batang Regency. During development, KLH and subnational authorities were actively engaged in shaping project objectives and activities to ensure alignment with Indonesia's NDC, RPJMN 2020–2024, PBI Policy, and regional development strategies. The NDA was engaged throughout the design phase to ensure alignment with Indonesia's Second NDC, RPJMN 2020–2024, and sectoral strategies. The project contributes to the PBI policy by addressing priority risks in agriculture, water, and coastal sectors. Its market systems development component introduces private sector engagement in adaptation, responding to national calls for multi-stakeholder involvement. A formal no-objection letter from the NDA confirms BRAVE's consistency with national priorities. See *Annex 1*.

BRAVE's interventions are fully aligned with government initiatives on watershed management, disaster risk reduction, and climate-resilient agriculture and aquaculture. By coordinating with RPJMN 2020–2024, the PBI Policy, and Presidential Regulation No. 79/2019, the project strengthens institutional ownership, avoids duplication, and ensures long-term sustainability. The PBI Policy identifies Pekalongan City, Pekalongan Regency, and Batang Regency as priority areas for climate resilience interventions in agriculture, water, and marine/coastal sectors. It emphasizes a multi-dimensional approach with inclusivity and ecosystem preservation as overarching principles, directly addressing flood resilience needs in Petanglong. Presidential Regulation No. 79/2019 designates Petanglong for accelerated economic development, though its projects largely focus on structural flood protection, with limited attention to integrated water resource management and livelihood adaptation. The Central Java Government's Petanglong Program addresses this gap but faces implementation challenges due to budget reallocations. BRAVE will complement these policies and programs by promoting integrated water resource management and climate-resilient livelihoods, filling existing gaps, and ensuring interventions are both policy-aligned and responsive to the watershed's resilience needs.

The Accredited Entity, Kemitraan brings over two decades of experience managing large-scale governance, climate resilience, and community-based adaptation initiatives in Indonesia. Kemitraan has successfully implemented multi-year projects funded by the Adaptation Fund, UNDP, USAID, and the EU, demonstrating strong fiduciary standards, risk management, and safeguards compliance required by international climate finance mechanisms. Under the Adaptation Fund, Kemitraan implemented a flagship project in eight kelurahan of Pekalongan City, focusing on climate-resilient livelihoods and coastal adaptation. The proposed BRAVE project directly complements and enhances these interventions, particularly by addressing upstream and midstream watershed dynamics, economic development, and landscape-scale flood management. Kemitraan's proven ability to facilitate multi-stakeholder governance platforms, including coordination across government, civil society, and private sector actors, positions it well to lead BRAVE as AE. Its governance reform expertise ensures transparent oversight, participatory decision-making, and accountability.

The Executing Entity, Mercy Corps Indonesia, has extensive technical expertise in climate-resilient livelihoods, adaptive agriculture and aquaculture, watershed management, and community-based disaster risk reduction. In Central Java, MCI has successfully led the ZCRA project, piloting climate risk-informed adaptation in the Kupang watershed in Pekalongan City and Pekalongan Regency; using evidence for advocacy at local, province and national level. Lessons learned from ZCRA, including innovative tools like the CRIA and resilient livelihood models, are directly embedded in BRAVE's design, ensuring both continuity and scaling of effective practices. MCI has a strong track record of managing projects of comparable funding scale, with demonstrated ability to mobilize local actors, deliver technical assistance, and build sustainable community-based institutions. Its operational presence in the project area ensures community trust, government buy-in, and effective field-level implementation. Local partners, including foundations, farmer and aquaculture groups, and civil society organizations, will provide specialized expertise in conservation agriculture, ecosystem restoration, and participatory land-use planning.

BRAVE was designed through a participatory process to ensure interventions reflect the priorities of diverse stakeholders. Consultations engaged national, provincial, and local government agencies; women's and farmer groups; community-based organizations; civil society; and the private sector. Through focus group discussions, multi-stakeholder workshops, and bilateral meetings, stakeholders shaped activities that address climate and flood risks while also responding to social, economic, and ecosystem needs across the watershed. The process emphasized women's participation and the inclusion of marginalized groups in decision-making, ensuring that interventions are locally grounded, socially inclusive, and widely supported. The project design was informed by extensive consultations with stakeholders, including local communities, women and farmer groups, provincial and city government agencies, private sector actors, and civil society organizations. The Stakeholder Engagement Plan in Annex 13 describes the process of engagement to date as well as activities to ensure full engagement moving forward.

Selection criteria for interventions included:

- ✓ Contribution to climate risk reduction and flood resilience,
- ✓ Socio-economic benefits for vulnerable groups,
- ✓ Ecosystem restoration and watershed health,
- ✓ Alignment with national and subnational policies, and
- ✓ Feasibility for scaling.

Gender and Environmental/Social Safeguards were central to the process. Dedicated sessions with women, youth, and marginalized communities were conducted to identify barriers to participation and to co-design inclusive solutions such as climate-smart agriculture, adaptive aquaculture, and participatory land-use planning. Gender analysis and engagement as well as Environmental and Social safeguard screening, directly informed activity selection, ensuring that interventions promote equity and minimize risks. A Gender Action Plan (Annex 4) and Environmental and Social Action Plan were developed (Annex 12) to ensure that the project fits Category C.

At the community level, BRAVE builds on relationships established under the MCI/ZCRA and Kemitraan's Adaptation Fund project, which cultivated trust and participation among farmers, fish-farmers, and women's groups. Communities were actively involved in shaping intervention design and remain engaged in governance, monitoring, and implementation, including through the formation of producer cooperatives and farmer/fish-farmer corporations.

To extend ownership, BRAVE will establish multi-stakeholder knowledge-sharing platforms that convene government agencies, community organizations, academia, and private sector actors. These platforms will disseminate lessons from ZCRA and Adaptation Fund projects, encourage policy uptake, and promote replication in other priority watersheds. The project also advances Indonesia's NDC commitments by filling a recognized gap in private sector engagement in adaptation. Through its market systems development approach, BRAVE introduces shared-value partnerships that mobilize private investment, strengthen producer-market linkages, and create a sustainable ecosystem for resilience and inclusive growth.

Overall, BRAVE demonstrates strong country ownership by securing NDA approval, embedding interventions in national strategies and government programs, and institutionalizing mechanisms for learning, replication, and private sector engagement.

D.6. Efficiency and effectiveness

D.6.1. Estimated cost per t CO ₂ eq, defined as total investment cost / expected lifetime emission reductions (Mitigation and Cross-cutting)	(a) Total project financing	US\$ _____
	(b) Requested GCF amount	US\$ _____
	(c) Expected lifetime emission reductions	_____ tCO ₂ eq
	(d) Estimated cost per tCO ₂ eq (d = a / c)	US\$ _____ / tCO ₂ eq
	(e) Estimated GCF cost per tCO ₂ eq removed (e = b / c)	US\$ _____ / tCO ₂ eq
D.6.2. Expected volume of finance to be leveraged by the proposed project/programme and as a result of the Fund's financing, disaggregated by public and private sources (Mitigation and Cross-cutting)	(f) Total finance leveraged	US\$688,922
	(g) Public source finance leveraged	US\$688,922
	(h) Private source finance leveraged	US\$ _____
	(i) Total Leverage ratio (i = f / b)	US\$ _____
	(j) Public source leverage ratio (j = g / b)	US\$ _____
	(k) Private source leverage ratio (k = h / b)	US\$ _____

D.6.3. Describe how the financial structure is adequate and reasonable in order to achieve the proposal's objective(s), including addressing existing bottlenecks and/or barriers; providing the minimum concessionally; and without crowding out private and other public investment. (max. 500 words)

The BRAVE project requests concessional finance in the form of grants from the GCF to address climate risks in the Kupang and Sengkarang watersheds. The rationale for concessional is grounded in the high economic and social costs of inaction, the absence of predictable revenue streams from adaptation measures, and the need to correct market failures in climate-resilient public infrastructure and ecosystem-based interventions. Climate change-related damages

in these watersheds already impose annual losses of USD134.7 million (2020 baseline), and projections from the CRIA indicate that, by 2035, annual damages could reach USD2.2 billion, over twenty times the baseline, highlighting the urgent need for substantial intervention. Local governments' fiscal capacity is insufficient to cover the required scale of investment, and private capital is largely absent due to high perceived risks and diffuse, non-monetized benefits. Therefore, concessional grants are deemed the minimum support necessary to make the investment viable, as they absorb early-stage climate and adoption risks, allowing interventions to demonstrate technical, social, and economic feasibility.

The grant structure embodies the principle of minimum concessionally. It provides only the level of support needed to overcome barriers to implementation while ensuring that the measures are scalable and capable of leveraging future private and public financing. Concessionally directly benefits local communities, who build resilience to flooding and climate shocks, improved livelihoods, and access to climate information, as well as local governments, which are enabled to implement long-term adaptation plans despite budget constraints. Without GCF support, expected returns on investment would be negative or insufficient to attract private financing, while with concessional grants, financial and social benefits, including avoided losses, increased agricultural and aquaculture productivity, and strengthened ecosystem services, make the interventions viable.

The BRAVE project is designed to achieve cost effectiveness by integrating adaptation outcomes with measurable economic and social returns. Climate-resilient infrastructure, ecosystem restoration, and livelihood diversification are implemented across upstream and downstream areas, ensuring comprehensive risk reduction. Using climate risk assessments, inundation modeling, and livelihood analyses, the project targets interventions that will reduce projected losses from USD 2.2 billion to lower levels by 2035. Compared to benchmarks in regional climate adaptation projects, the BRAVE project demonstrates both high cost-effectiveness, through reduced infrastructure damage and improved agricultural and aquaculture yields, and strong social impact, particularly for vulnerable households representing 12.5% of the population in these watersheds. More details on the economic feasibility of the project is provided in Annex 10.

Economic and financial analysis indicates that, without GCF intervention, the financial rate of return is insufficient to justify investment due to upfront costs, long payback periods, and non-monetized benefits. With GCF support, the project is expected to achieve positive net present value and adequate rates of return, primarily through avoided flood damages, enhanced ecosystem services, and income gains from climate-smart value chains. Identified financial gaps include upfront investment requirements, risk mitigation for early adopters, and capacity building, which concessional grants effectively address. Constraints to finance access include limited local government budgets, market failures for public goods, and high perceived climate risks.

The project leverages best practices and technology for climate adaptation adopted from other projects, including sub-seasonal to seasonal climate forecasting, impact-based forecasting, climate-smart agriculture (carrot) and adaptive aquaculture (milkfish). Innovations include floating aquaculture nets, multi-use public spaces for runoff management, and bundled market services linking production, processing, and marketing to ensure predictable income streams. These interventions are tailored to local conditions and aligned with industry best practices to maximize resilience, reduce losses, and improve livelihoods.

The project ensures sustainability through a robust Operation and Maintenance plan, community and government capacity building, and market system development. Climate-resilient infrastructure and productive assets will be maintained by local governments, driven by revenues and reduced costs from improved practices. Institutional incentives, such as integration into local development plans, ensure long-term public financing, while value-chain actors benefit from improved supply stability and quality, incentivizing continued investment. Financial incentives and market linkages support private sector engagement, and the project's demonstration effect encourages replication and scale-up.

Confirmed co-financing of USD 688,922, representing 6.89% of the total project budget, from executing entities and local governments provides a catalytic base, with potential to mobilize additional public and private investment through risk reduction, strengthened market access, and policy integration. The concessional structure thus enables immediate adaptation action, catalyzes broader investment, ensures long-term viability of interventions and sustained social, economic, and environmental benefits.

E. ANNEXES

E.1. Mandatory annexes

- ☒ Annex 1 NDA No-objection Letter(s) ([Template](#))
- ☒ Annex 2 Pre-feasibility (or feasibility) study ([Guidance](#))
- ☒ Annex 2a Logical Framework ([Template](#))
- ☒ Annex 2b Timetable ([Template](#))
- ☒ Annex 2c The Theory of Change
- ☒ Annex 3 Budget plan that provides breakdown by type of expense including AE fees ([Template](#))
- ☒ Annex 4 Gender assessment and action plan ([Template](#))
- ☒ Annex 5 Co-financing commitment letter if applicable ([Template](#))
- ☒ Annex 6 Term sheet including a detailed disbursement schedule and, if applicable, repayment schedule
- ☒ Annex 7 Risk assessment and management ([Template](#))
- ☒ Annex 8 Procurement plan model ([Template](#))
- ☒ Annex 9a Legal Due Diligence (regulation, taxation and insurance) ([Template](#))
- ☒ Annex 9b Legal Opinion/Certificate of Internal Approvals ([Template](#))

E.2. Other annexes to be submitted when applicable/requested

- ☒ Annex 10 Economic and/or financial analysis ([Guidance](#))
(mandatory for private-sector proposals)
- ☐ Annex 11 Appraisal, due diligence or evaluation report for proposals based on up-scaling or replicating a pilot project
- ☒ Annex 12 Environmental and Social Action Plan (ESAP) ([Template](#))
- ☒ Annex 13 Stakeholder Engagement Plan
- ☒ Annex 14 Monitoring, Evaluation and Learning Plan
- ☒ Annex 15 Climate Risk and Impact Assessment
- ☒ Annex 16 Project Exit Strategy
- ☒ Annex 17 Site Specific Climate Rationale

***** Please note that a funding proposal will be considered complete only upon receipt of all the applicable supporting documents. *****