ADAPTATION FUND

AFB/PPRC.25/18
30 September, 2019

Adaptation Fund Board
Project and Programme Review Committee
Twenty-Fifth Meeting
Bonn, Germany, 7-9 October, 2019

Agenda Item 4 o)

PROPOSAL FOR INDONESIA (4)

Background

1. The Operational Policies and Guidelines (OPG) for Parties to Access Resources from the Adaptation Fund (the Fund), adopted by the Adaptation Fund Board (the Board), state in paragraph 45 that regular adaptation project and programme proposals, i.e. those that request funding exceeding US$ 1 million, would undergo either a one-step, or a two-step approval process. In case of the one-step process, the proponent would directly submit a fully-developed project proposal. In the two-step process, the proponent would first submit a brief project concept, which would be reviewed by the Project and Programme Review Committee (PPRC) and would have to receive the endorsement of the Board. In the second step, the fully-developed project/programme document would be reviewed by the PPRC, and would ultimately require the Board's approval.

2. The Templates approved by the Board (Annex 5 of the OPG, as amended in March 2016) do not include a separate template for project and programme concepts but provide that these are to be submitted using the project and programme proposal template. The section on Adaptation Fund Project Review Criteria states:

> *For regular projects using the two-step approval process, only the first four criteria will be applied when reviewing the 1st step for regular project concept. In addition, the information provided in the 1st step approval process with respect to the review criteria for the regular project concept could be less detailed than the information in the request for approval template submitted at the 2nd step approval process. Furthermore, a final project document is required for regular projects for the 2nd step approval, in addition to the approval template.*

3. The first four criteria mentioned above are:
   (i) Country Eligibility,
   (ii) Project Eligibility,
   (iii) Resource Availability, and
   (iv) Eligibility of NIE/MIE.

4. The fifth criterion, applied when reviewing a fully-developed project document, is:
   (v) Implementation Arrangements.

5. It is worth noting that at the twenty-second Board meeting, the Environmental and Social Policy (ESP) of the Fund was approved and at the twenty-seventh Board meeting, the Gender Policy (GP) of the Fund was also approved. Consequently, compliance with both the ESP and the GP has been included in the review criteria both for concept documents and fully-developed project documents. The proposal template was revised as well, to include sections requesting demonstration of compliance of the project/programme with the ESP and the GP.

6. At its seventeenth meeting, the Board decided (Decision B.17/7) to approve "Instructions for preparing a request for project or programme funding from the Adaptation Fund", contained in the Annex to document AFB/PPRC.8/4, which further outlines applicable review criteria for both

concepts and fully-developed proposals. The latest version of this document was launched in conjunction with the revision of the Operational Policies and Guidelines in November 2013.

7. Based on the Board Decision B.9/2, the first call for project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on April 8, 2010.

8. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

9. The following project concept document titled “Reducing vulnerability and increasing the adaptation capacity of community through the improvement of irrigation management system andsustainable agricultural practices in responding to climate change impacts in lowland and estuary area in sub-district of Muara Sugihan and Air Sugihan, South Sumatera“ was submitted for Indonesia by the Partnership for Governance Reformin Indonesia (Kemitraan), which is the National Implementing Entity of the Adaptation Fund.

10. This is the first submission of the proposal using the two-step submission process.

11. The current submission was received by the secretariat in time to be considered in the 34th Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number IDN/NIE/Agric/2019/1, and completed a review sheet.

12. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with Kemitraan, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

13. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25.15, the proposal is submitted with changes between the initial submission and the revised version highlighted.

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW

OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: REGULAR-SIZED CONCEPT

Country/Region: **Indonesia**
Project Title: **Reducing vulnerability and increasing the adaptation capacity of community through the improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in lowland and estuary area in sub-district of Muara Sugihan and Air Sugihan, South Sumatera**
Thematic Focal Area: **Agriculture**
Implementing Entity: **Partnership for Governance Reform in Indonesia (Kemitraan)**
AF Project ID: **IDN/NIE/Agric/2019/1**

IE Project ID: **<IE to fill out>** Requested Financing from Adaptation Fund (US Dollars): **1,002,101**
Reviewer and contact person: **Natalie Unterstell** Co-reviewer(s): **Paul Hartman, Saliha Dobardzic**
IE Contact Person: **<IE to fill out>**

Technical Summary	Partnership for Governance Reform (Kemitraan) proposes to reduce vulnerability and increase the adaptive capacity of community in responding to climate change impacts in lowland and coastal area in South Sumatra, Indonesia. It seeks to achieve this goal through the following six (6) project components: 1. Baseline Data and Knowledge 2. Government capacity 3. Community Engagement 4. Community Livelihood 5. Ecosystem Resilience 6. Policy and Governance The project will benefit tidal farming populations in sub-districts of Muara Sugihan and Air Sugihan, where the larger majority of climate vulnerable villages of Indonesia lives. The main benefit will be the improvement of irrigation management system and sustainable agricultural practices. Currently, as this population is largely dependent on land ecosystems and vulnerable to flooding, many farmers have been switching to pond fisheries by cutting mangrove. That is resulting in increased vulnerability to sea level rise, coastal abrasion and tsunami risk. The project aims to address the current adaptation deficit and prevent disruption of community livelihoods system due to climate change. The initial technical review found several important issues to be addressed in the concept document, such as the climate change risks to the target area, adaptation cost reasoning, limited consultative process underpinning the project proposal, an incomplete knowledge management section, and others. Moreover, the project document lacked a solid cost-effectiveness analysis of the proposed activities. This second technical review found that most Clarification Requests (CRs) and Corrective Action Request (CAR) have been addressed. However, certain issues remain, namely the additionality of using AF funds to repair the irrigation infrastructure through community cash to work methods (see CAR 3 and CR11), and

	certain aspects like cost-effectiveness and potential direct beneficiaries (see CAR7 and CAR4) of the project remain vaguely addressed. These should be addressed before the concept can be endorsed. **The concept proposal is not recommended for endorsement.**
Date:	16 September, 2019

Review Criteria	**Questions**	**Comments**	**Comments on September 16th, 2019**
Country Eligibility	1. Is the country party to the Kyoto Protocol?	Yes	-

	2. Is the country a developing country particularly vulnerable to the adverse effects of climate change?	Yes.	-
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	Yes.	-
	2. Does the length of the proposal amount to no more than Fifty pages for the project/programme concept, including its annexes; or One hundred pages for the fully-developed project document, and one hundred pages for its annexes?	No. **CAR 1:** Please reduce the length of the text to a maximum of 50 pages, including annexes. Current version is 76 pages long and 21 pages were not numbered. **CAR2**: On page 5, a map of irrigated lands is mentioned but has not been included.	**CAR 1:** Addressed. **CAR2:** Addressed.

	3. Does the project / programme support concrete adaptation actions to assist the country in addressing adaptive capacity to the adverse effects of climate change and build in climate resilience?	Not adequately addressed. It is unclear if the adaptation actions address adaptive capacity to the effects of climate change. The analysis of climate impacts in the region relies on old data that in some cases is more than 20 years old. Moreover, a major component of the plan is to revitalize the infrastructure for irrigation. Given expected trends in drought, sea level rise and flooding, it is not clear that the lowland areas will be well suited to irrigation agriculture in the future, making such an effort potentially mal-adaptive. It would instead be better to conduct an updated vulnerability assessment and determine what actions would be address community vulnerabilities as opposed to presupposing this fixing the irrigation system is the answer. **CAR 3:** Please review and integrate relevant scientific information on the forward-looking impacts of and risks posed by climate change in project sites into activities, particularly into Component 1. Please consider national vulnerability and risk assessments, economic studies,	**CAR3:** Not Addressed. A clear vulnerability assessment leading to adaptation actions should demonstrate threats are being addressed for both the near and long term. On irrigation infrastructure, the project should be clear and specific about how it will strengthen the communities' resilience other than just account for business-as-usual development activity. Also, the project should indicate how repairing the existing irrigation infrastructure will take into consideration the changes already felt and those projected for the future in the local hydrology; so that the infrastructure and facilities are truly adapted. Please indicate how this will be addressed through the different Components.

		and other research undertaken as part of the methodology in Component 1/page 10/Table 4. For instance, the 2012 Climate Risk and Adaptation Assessment (KRAPI) document which was recommended during the consultative process. **CR1:** Please explain how knowledge transfer through trainings can secure the deliverable of Component 2.2. Please be specific about what type of tools and frameworks for decision making this component will develop. **CR2**: Please consider explaining how the project can assist decision making processes, and how the project will help/which steps will be assisted. It is rather unclear how the project will contribute to "direct practice". Does it mean providing drafting of new policies and norms to authorities? Is that legal according to Indonesia's law?	**CR1:** Not addressed. Please be specific about what type of tools and frameworks for decision making this component will develop. Who will be trained? What will inform the success of component 2.2 implementation? **CR2:** Addressed. **CR3:** Not addressed. Please be specific when addressing the means through which the project will secure that farmer organizations' capacity are increased, as well as nature conservation awareness is increased, etc. The component is still described in terms of expected results, lacking a proper description of what and how it will be made operational.

		CR3: Please be more specific about the selected methodology for operationalising Component 3.2.	
			CR4: Not Addressed.
		CR4: Please clarify what the strategy is for component 4.2 in terms of community adherence to new technological models and livelihoods.	**CAR4:** Not Addressed. Please provide an estimate on how many people will be direct beneficiaries or explain why is it that all inhabitants are considered economically benefited by that activity.
		CAR4:Please include reference to number of households/families/farmers or other groupings taking part in this activity, even if this is a preliminary estimate at this point.	**CR5:** Not addressed. Please qualify the means by which the project will promote better policy integration.
			CR6: Addressed.

		CR5: Please identify how the project will foster better policy integration, including mechanisms for it, in Component 6. **CR6:** Please clarify what kind of monitoring system is envisioned in activity 6.2.1. Is such system going to monitor the outcome of policies enacted by governments?	

	4. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Not adequately informed. The project is expected to provide benefits to vulnerable communities, particularly women through a focus on adaptive agriculture and fisheries practices training targeting these groups. A more concrete approach on project beneficiaries is needed, in order to develop targeted adaptation policies as well as implement project activities. **CAR5**: Please revise the main text so that Annex 5 compiled information is clearly indicated as the basis for presenting benefits stemming from the project implementation. **CAR6**: Please provide an estimate on how many people will be direct beneficiaries of project activities and provisionally list the beneficiary communities in each of Components. Please consider rewriting the section 1 on Economic Benefits (pages 14 to 16) as it	**CAR5:** Addressed. **CAR6:** Not addressed. Please provide an estimate on how many people will be direct beneficiaries or explain why is it that all inhabitants are considered economically benefited by the project activities.

		does not specify what the benefits of the project will be - it rather describe who are the people in the targeted areas. **CR7:** Please clarify how the project plans to address equitable distribution of benefits to vulnerable communities, households and individuals?	**CR7:** Not addressed. Please include in the project document the present ideas envisioned to address equitable distribution of benefits. Please consider linking it to project activities' goals (i.e. vulnerability assesment stage, community capacity building, etc).

	5. Is the project / programme cost effective?	Not adequately addressed. As the maintenance of irrigation systems is the responsibility of the provincial government, it is unclear why donor funds should be used for a cash to work scheme with communities to undertake this function. Measures to ensure support from the government to fix the existing irrigation system may be a more cost-effective and sustainable approach. **CAR7**: Please include cost-effectiveness analysis of the proposed measures. **CR8**: Please consider the following: Components 2 and 6 are similar: cross-sectoral governance, institutional capacity strengthening, climate change monitoring, planning. Consider if these components should be merged. Activities 2.1.1 and 3.1.1 are similar with regard to governance building. Please	**CAR7:** Not addressed. At this stage, the cost-effectiveness section should provide some level of information on what kind of intervention is proposed. Although calculations can be left for the full-size proposal development stage, a clear justification of AF's investment on communitarian repairing and maintaining of irrigation infrastructure is key to justify the proposed measures. **CR8:** Addressed.

		consider revising them and also clarify how different they are in relation to activity 6.1.2.	
	6. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other	Yes, the project is in line and consistent with relevant national strategies and programmes.	

	relevant instruments?		
	7. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	Not clear. It is unclear how the project aligns with the Standard Irrigation Planning Criteria, Ministry of Public Works 2013 **CR9:** Please clarify. Also please clarify if the project will involve indigenous communities, and if so, how the project would be in line with regulation on rural development that considers their specific needs.	**CR9:** Addressed.
	8. Is there duplication of project / programme with	No.	

	other funding sources?		
	9. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Not sufficiently addressed. The project KM component focus on the collection and production of information as well as capacity building, at various levels. However, more information about the sharing mechanisms and with whom the knowledge generated by the project will be shared would be useful. **CR10:** Please provide more information about the sharing mechanisms and with whom the knowledge generated by the project will be shared would be useful.	**CR10:** Not addressed. Please expand the KM component so that the feedback component is properly considered.

	10. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Not adequately addressed. The project development process undertook consultations with provincial government agencies. It appears that none of the non-governmental actors mentioned in the Institutional Sustainability section, nor key stakeholders from the communities, have been consulted. This is relevant for long-term sustainability. As the project aims to promote a high level of engagement and ownership of village governments and villagers, it seems absolutely necessary to consider consultations with vulnerable farmers' groups, women and decision-makers. Taking into consideration the project's objectives, local communities should be particularly involved in identifying priorities, accessing official decision making process and discussing the appropriateness of technological innovations proposed.	

		Also, as the private sector is mentioned as part of the economic model to be adopted, it is important to consider businesses' perspectives about the economic activities that the project will promote. **CAR8:** Please ensure consultations with key stakeholders including the target group and sector experts, focussing on adaptation measures proposed in the project as well as its methodology.	**CAR8:** Not addressed. Section H of the document does not include any provisions for further consultations with key stakeholders.

	11. Is the requested financing justified on the basis of full cost of adaptation reasoning?	The adaptation reasoning needs to be strengthened. 'Trends' of drought, flooding and sea level rise are not based on recent analysis and don't fully justify the adaptation benefits sought by the project. Particularly unclear is how repairing the irrigation system will strengthen adaptive capacity and not instead become maladaptive in years to come, particularly if drought and sea level rise makes current farming practices untenable or diverts fresh water in times of water scarcity. **CR11:** Please strengthen the justifications and clarify how the activities are linked to adaptation, and whether the financing requested is adequate to achieve adaptation outcomes.	**CR11:** Not adequately informed. Please see the comment on item 3 and the need to clarify the role of the project in repairing the irrigation system through community cash to work instead of business-as-usual, government development work.
	12. Is the project / program aligned with AF's results framework?	Yes. The project is aligned with AF's results framework and would contribute to Outcomes 2, 3, 6 and 7.	

	13. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	The proposal has considered sustainability of the outcomes through various means: building capacity, raising awareness, establishing governance arrangements such as a multistakeholder forum, etc. There is limited information on ensuring ownership by villagers and village governments. As per comment above, no specific consultation has been held with this targeted population yet. Therefore, there is no evidence that the Community Livelihoods component approach is sustainable nor desired by local villagers. **CR 12:** Please address local ownership as means to secure sustainability of benefits in the long term. **CAR9:** Scaling-up and replication were not addressed.	**CR12:** Not addressed. The rationale is unclear: why and how ownership can be ensured in transmigration sites? Please address it in the project document. **CAR9:** Not addressed. Please include in the project document the scaling up and replication ideas.

	14. Does the project / programme provide an overview of environmental and social impacts / risks identified, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	The proposal includes a Gender Equality and Social Inclusion Plan with specific indicators, outlined according to each Component of the project. A very limited assessment of the environmental and social risks and impacts is supplied. A check-list is provided as part of the screening process, indicating priority areas. Still, potential risks are not explained nor how the project plans to manage them. None of the environmental risks related to infrastructure support through repair of the irrigation system are identified. **CAR10:** Please consider applying a similar approach to that of the Gender assessment to the environmental and social section, listing risks per activity component whenever possible and providing information on how they will be addressed. The inclusion of a risk management matrix is also advised.	**CAR10:** Addressed.

		CR13: Please provide more details on how you will ensure equity in choosing project beneficiaries **CR 14:** Please include specific reference to who is affected by Component 5 activities and if there are adverse effects of village regulation in terms of income loss (i.e. mangrove conservation versus mangrove exploitation; what those involved in the latter will do if the activity is prohibited.)	**CR13:** Not addressed. Please include in the project document the approach towards vulnerable groups. **CR14:** Not addressed. Please include in the project document the approach towards adverse effects.
Resource Availability	1. Is the requested project / programme funding within the cap of the country?	Yes	
	2. Is the Implementing Entity Management Fee at or below 8.5 per cent of the total project/programme budget before the fee?	Yes	

	3. Are the Project/Programme Execution Costs at or below 9.5 per cent of the total project/programme budget (including the fee)?	Yes	
Eligibility of IE	4. Is the project/programme submitted through an eligible Implementing Entity that has been accredited by the Board?	Yes.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	2. Are there measures for financial and	n/a at concept stage	

	project/programme risk management?		
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy and Gender Policy of the Fund?	n/a at concept stage	
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a at concept stage	
	5. Is an explanation and a breakdown of the execution costs included?	n/a at concept stage	
	6. Is a detailed budget including budget notes included?	n/a at concept stage	

	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators, in compliance with the Gender Policy of the Fund?	n/a at concept stage	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	n/a at concept stage	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core	n/a at concept stage	

	outcome indicator from the Fund's results framework?		
	10. Is a disbursement schedule with time-bound milestones included?	n/a at concept stage	

ADAPTATION FUND

PROJECT PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT INFORMATION

Project Category:	Small-Sized Project
Country:	Indonesia
Title of Project:	**Reducing vulnerability and increasing the adaptation capacity of community through the improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in lowland and estuary area in sub-district of Muara Sugihan and Air Sugihan, South Sumatera.**
Type of Implementing Entity:	National Implementing Entity
Implementing Entity:	Kemitraan (Partnership for Governance Reform)
Executing Entity/ies:	Penabulu Alliance (Yayasan Penabulu, Yayasan Relung, Yayasan Depati and Yayasan Bina Vitalis)
Amount of Financing Requested:	USD 1,000,000

A. PROJECT BACKGROUND AND CONTEXT

Climate change causes increased vulnerability to lowland and coastal areas. Upstream areas and degraded watersheds coupled with extreme rainfall have caused lowland and coastal areas experiencing severe flooding. This is compounded by the rise in sea level which causes the lowlands and coastal areas become more vulnerable to flood puddle.

The province of South Sumatra has specific characteristics, where most of its territory is lowland and has a high degree of exposure to climate change, in particular the threat of water-logging in coastal areas caused by the combination of rising sea levels, sea waves, and La-Nina phenomena at the maximum tide.
Vulnerability to ecological disasters caused by climate change approaches the South Sumatra region at each season change. Flooding is the most important problem to immediately find a solution and prevention because the impact in several districts and cities is starting to worry. This certainly needs attention so that the development process can continue by considering the possibility of ecological disasters caused by climate change.
The dynamic general conditions of sea levels and currents on the east coast of South Sumatra (including the Bangka Strait) are analyzed from several oceanographic models such as HYCOM and FVCOM. During the Asian monsoon, the current of sea surface is heading south, with a maximum of 30 cm/second in January; on the contrary, during the Australian monsoon, the surface currents turned northward at lower speeds. While the influence of currently tidal is quite significant in the Bangka Strait, especially the rising functions at the Musi River mouth/estuary when the water is heading down. As a result of the monsoon pattern, sea surface temperatures have a seasonal cycle, where up to maximum increases occur in May given the intense solar warming and low surface wind, and vice versa run into a decline towards the minimum in January. The factor that a lot of influences sea surface temperature is transport of sea water masses from the Pacific Ocean through the South China Sea.

Among 15 districts/cities in South Sumatra Province, only two districts have coastlines or are bordered by sea water, namely **Ogan Komering Ilir (OKI)** and **Banyuasin**. However, the danger of coastal flooding triggered by climate change stimuli can reach six districts/cities by 2030, namely Banyuasin, Muara Enim, Musi Banyuasin, Ogan Ilir, OKI, and Palembang[1]. The Project will located around **the estuary of Musi**

[1] Risk Assessment and Adaptation to Climate Change: Tarakan City, South Sumatra and Malang Raya, Ministry of Environment 2012

River and Sugihan River, in Muara Sugihan sub-district, Banyuasin District and Air Sugihan sub-district, Ogan Komering Ilir District which is one of the areas with high to very high vulnerability to the effects of climate change in South Sumatra referring to the results of study conducted by the Ministry of Environment 2012. The study above is in accordance with SIDIK data where Banyuasin and Ogan Komering Ilir (OKI) are the districts with the most number of vulnerable villages among other districts in South Sumatra Province.
Complete data on village classification based on vulnerability level in South Sumatra Province by District presented below[2]:

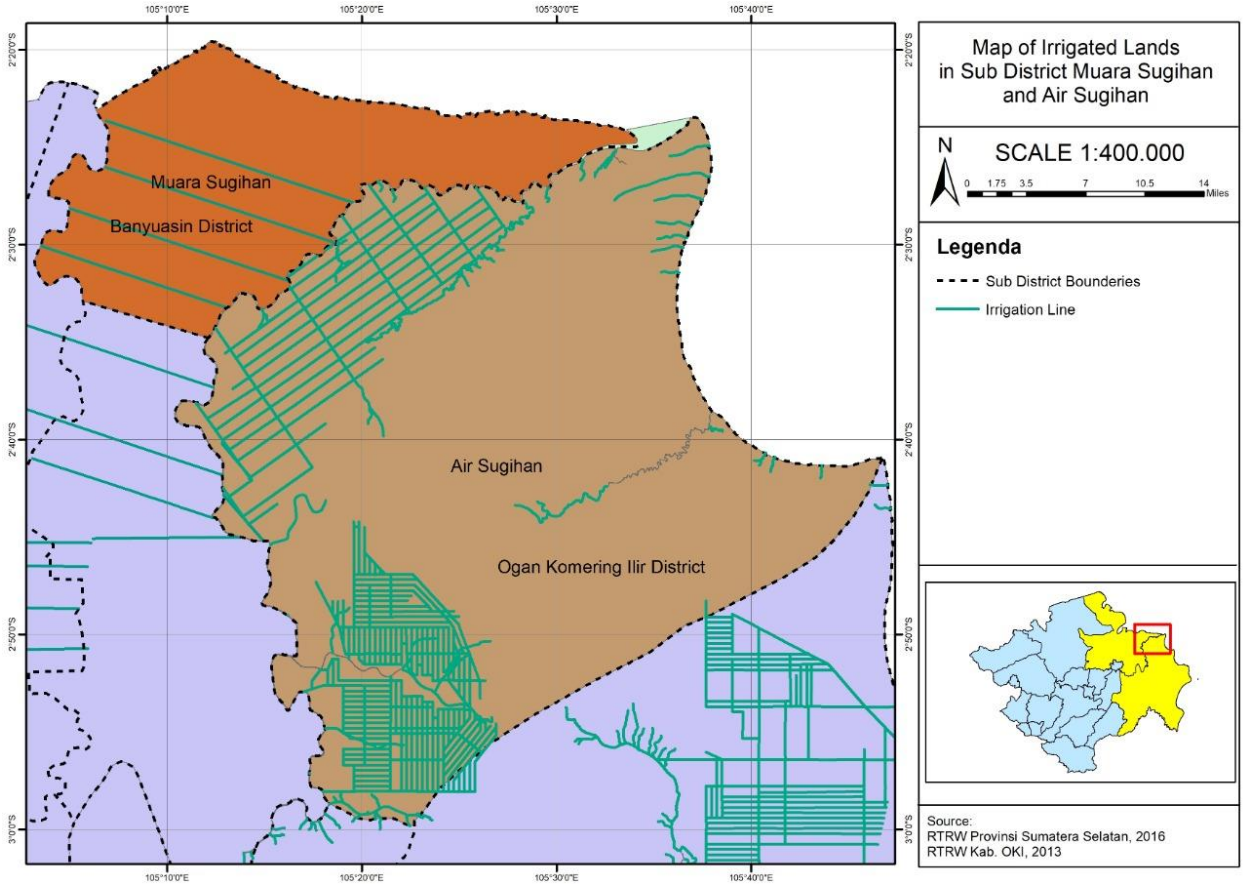
Table 1: Number of Vulnerable Villages in South Sumatra Province

No	District	Vulnerability Level					Total Villages
		1	2	3	4	5	
1	District of Banyu Asin	3	76	151	1	73	304
2	District of Empat Lawang		57	79		20	156
3	City of Lubuklinggau	7	12	53			72
4	City of Pagar Alam		16	18		1	35
5	City of Palembang	13	4	82	6	2	107
6	City of Prabumulih	1	12	24			37
7	District of Lahat	12	234	119		11	376
8	District of Muara Enim	4	97	206		19	326
9	District of Musi Banyuasin	19	37	164	3	13	236
10	District of Musi Rawas	10	111	132		24	277
11	District of Ogan Ilir	5	113	68		55	241
12	District of Ogan Komering Ilir	9	102	142	1	56	310
13	District of Ogan Komering Ulu	6	51	88		9	154
14	District of Ogan Komering Ulu Selatan	4	84	116	2	53	259
15	District of Ogan Komering Ulu Timur	19	77	187		13	296
	Total	112	1083	1629	13	349	3186

Based on the conditions consideration above, the Project location is determined in 2 locations, **Muara Sugihan sub-district (Banyuasin District)** and **Air Sugihan sub-district (Ogan Komering Ilir District)**. Muara Sugihan sub-district has 71,956.55 km2 areas, consisting of 22 villages and has a population of 41,085 people, 21,255 men and 19,830 women. Whereas Air Sugihan sub-district has 2593.51 Km2 areas and consists of 19 villages with a population in 2017 around of 36,098 people consisting 18,706 men and 17,392 women. The population in this area works as farmers and planters and some work as employees in factories or industries. The composition of the population is dominated by young and productive age groups and few are elderly. Wetland agriculture is the main potential of community's economy. In Air Sugihan sub-district there are 22,170 km2 areas of rice fields (BPS, 2017). Besides agricultural crops, the community also cultivates a variety of vegetable crops; the types of vegetables grown are beans, chili, cucumber and eggplant.

The Project targeted area borders the eastern coast of Sumatra (Bangka Strait) in the northeastern part. It is very wide lowland with an average height of 7 meters above sea level. The real effect of this climate change impact is disruption of community's livelihood system. Most of people in this area are wetland farmers (swamps) who are very at flooding risk in rainy season and drought in dry season. The current system and irrigation infrastructure have not been able to meet the community's irrigation needs. The existing irrigation infrastructure has been built since the 1980s, but caused by changes in hydrology; the infrastructure and facilities cannot function optimally.

[2] Data Information System Vulnerability Index: Jakarta. Directorate General of PPI-Ministry of Environment and Forestry 2015

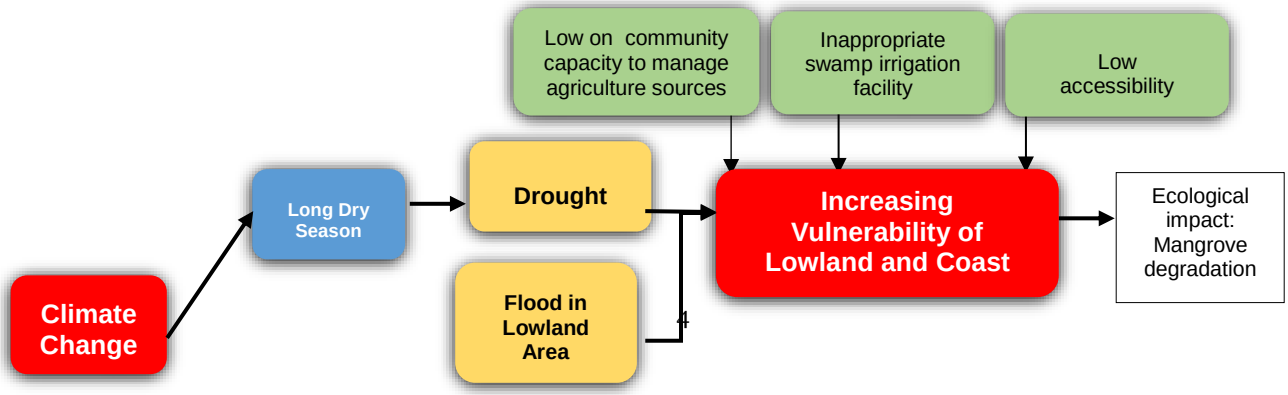


1. Map of irrigated land

The management of swamp irrigation in this area is the authority of the central government authority, the provincial government, and also the district government. Until now, this authority division has not been followed by adequate coordination in managing the potential of existing wetlands. The following is an irrigation map and its area. The farming system on tidal land is very different from other agricultural land. Farming is an attempt to allocate resources such as land, labor, capital, and management effectively and efficiently with the aim to produce output greater than input (Luntungan, 2012).Production on tidal farms is highly dependent on land and water management systems. Farming systems in wetlands require integrated farming, especially for land management and micro-governance which are the success determinants of farming in wetlands.

Maximizing the wetland agricultural production results must be supported by maintaining the sustainability of the land ecosystem itself. Conservation is carried out by implementing a sustainable farming system using organic materials. The use of organic fertilizers and pesticides is expected to reduce the use of chemical fertilizers and pesticides. Many farmers are only able to harvest once a year and are even at risk of falling on crop failure caused by flooding. As a result, many people have switched to pond fisheries sector by cutting down mangrove forests which has resulted in mangrove ecosystems destruction. It is also increases vulnerability to sea level rise, coastal abrasion and tsunami risk.

The context of climate change vulnerability in this region can be described in the following scheme:



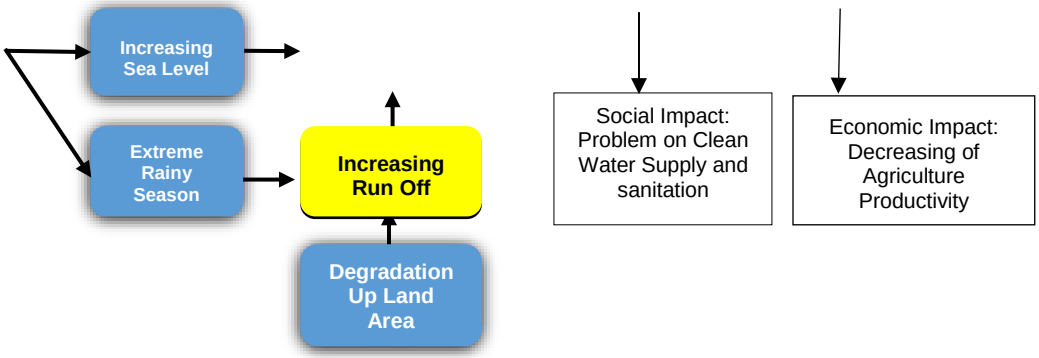


Figure 1: Vulnerability schemes to climate change that exist at the Project site

Based on the scheme above, vulnerability at the Project location are multidimensional. Strengthening from the community and also the government is needed. In addition, to help the community in technical matters, institutional strengthening is also needed, especially related to the management of irrigation networks. Support is also needed physically related to the repair of irrigation facilities. In addition, policy support from the regional government and the central government is also needed to optimize existing potential. Mangrove forests that are undergoing degradation also need to be considered to maintain natural protection systems and this can be combined by increasing the variety of community income sources through a sustainable agriculture development scheme.

B. PROJECT OBJECTIVES

Project Goals is to reduce the vulnerability and to increase the adaptation capacity of community through the improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in lowland and estuary area in sub-district of Muara Sugihan and Air Sugihan, South Sumatera.

Objective 1: Assessment and mapping of risk and vulnerabilities caused by climate-related hazards and threats in estuary area of Musi River and Sugihan River in sub-district of Muara Sugihan and Air Sugihan ***(Baseline Data and Knowledge)***,

Objective 2: Strengthening the adaptive capacity of village, sub-district and district government in targeted area in South Sumatera to reduce risks associated with climate-induced socio-economic and environmental losses ***(Government Capacity)***,

Objective 3: Strengthening the community awareness and participation in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in adaptation and climate risk reduction measures ***(Community Engagement)***,

Objective 4: Diversification and strengthening livelihoods of vulnerable communities in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in relation to climate change impacts, including variability ***(Community Livelihood),***

Objective 5: Increasing the resilience of lowland and coastal ecosystem in estuary area of Musi River and Sugihan River in response to climate change and variability-induced stress ***(Ecosystem Resilience)***,

Objective 6: Improving the policies and regulations related to irrigation management system and agricultural practices in South Sumatera that promote and enforce climate resilience ***(Policy and Governance)***.

The six Project objectives above is an integral part which are inseparable to one another and together contribute to the Project goal to reduce vulnerability and to increase the adaptive capacity of community through the improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in sub-district of Muara Sugihan and Air Sugihan, South Sumatera and can be presented in the following figure:

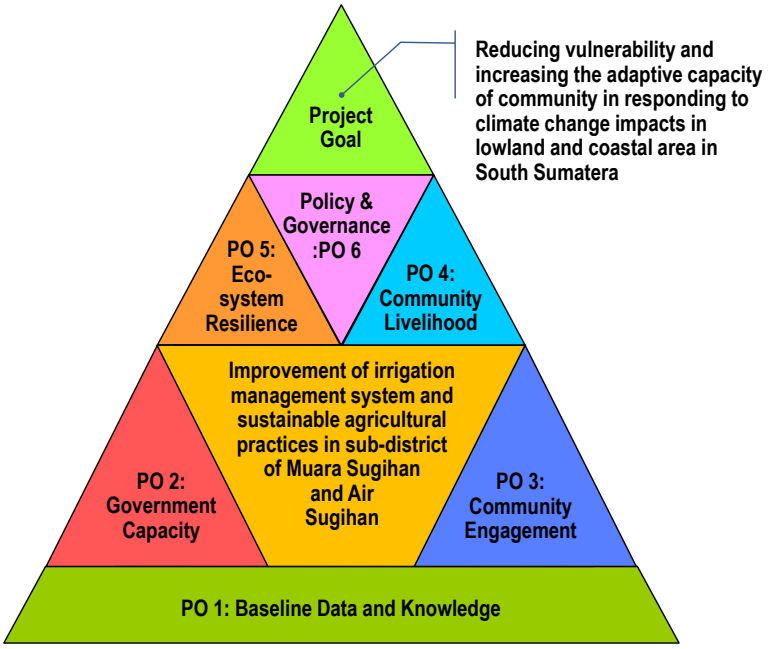


Figure 2: Inter-relation among Project Objectives/ Components and contribution flow to Project Goal

C. PROJECT COMPONENTS AND FINANCING

The details of the expected outcome and output accompanied with budget indications per Project component are presented as follows:

Table 2: Project Components and Financing

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
1. Baseline Data and Knowledge	1.1. Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.	1.1.1. Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed. 1.1.2. Action research of the impact of climate change on irrigation infrastructures, irrigation management system and agriculture practices are conducted.	$82,808
	1.2. The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed.	1.2.1. Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped. 1.2.2. Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.	
	1.3. Climate-related data are well managed and socialized to the wider community.	1.3.1. Climate related data management systems are developed in coordination with other key stakeholder. 1.3.2. Project best practices and lesson learned are documented, published and disseminated.	
2. Government Capacity	2.1. Developed strategy of climate change adaptation and adopted into a regular government planning cycle.	2.1.1. Sub-district and village level of spatial map and governance system are developed. 2.1.2. Landscape and sub-district level of climate change adaptation strategy and action plan are developed. 2.1.3. Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.	$62,106

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
	2.2. Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses.	2.2.1. Improved capacity of village and sub-district apparatus in the formulation of policy and regulation related to climate change adaptation. 2.2.2. Improved capacity of village and sub-district apparatus in the budget allocation/resource management and mobilization related to climate change adaptation.	
3. Community Engagement	3.1. Strengthened community awareness and participation in adaptation and climate risk reduction measures.	3.1.1. Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area. 3.1.2. Community participation in landscape and sub-district level of climate change adaptation strategy and action plan (see 2.1.2.).	$227,721
	3.2. Strengthened community adaptive capacity in climate risk reduction measures.	3.2.1. Village regulation on sustainable-use of natural resources and climate change adaptation are developed. 3.2.2. Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market. 3.2.3. Irrigation infrastructures are revitalized through community-based cash for work mechanism. 3.2.4. Community-based and integrated irrigation management systems are developed.	
4. Community Livelihood	4.1. Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.	4.1.1. Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries. 4.1.2. Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.	$186,317
	4.2. Diversified and enhanced livelihoods of vulnerable communities.	4.2.1. Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group. 4.2.2. Developed community or village-owned enterprises and cooperatives.	
5. Ecosystem Resilience	5.1. The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.	5.1.1. Delineated and developed community-based conservation area. 5.1.2. Developed village regulation of community-based conservation area. 5.1.3. Developed conservation partnership schemes between corporation and village/communities.	$144,913
	5.2. Improved ecosystem condition affected by climate change.	5.2.1. Restoration of degraded mangrove and coastal forest area are conducted. 5.2.2. Restoration and plant enrichment of degraded upstream and watershed areas are conducted.	
6. Policy and Governance	6.1. Improved policies and regulations and enforce climate resilience.	6.1.1. Improved capacity of related institution to develop climate change adaptation policies, strategies and activities. 6.1.2. Developed cross-sectoral governance to optimize the irrigation infrastructures system.	$124,211
	6.2. Developed climate change monitoring system which enforces climate resilience.	6.2.1. Promoted and established climate change monitoring system at district and provincial level. 6.2.2. Established community-based climate change adaptation learning system at sub-district and village level.	

Project Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
7. Project Execution Cost[3]			**$86,925**
8. Total Project Cost			**$915,000**
9. Project Cycle Management Fee charged by the Implementing Entity[4]			**$85,000**
Amount of Financing Requested (USD)			**$1,000,000**

D. PROJECTED CALENDAR

The proposed indicative milestones of the Project are as follows:

Table 3: Projected Calendar

Milestones	Expected Dates
Start of Project Implementation	1 January 20X1
Mid-term Review	January 20X2
Project Closing	31 December 20X2
Terminal Evaluation	December 20X2

[3] **Project Execution Cost (7)** is calculated at 8.5% of Total Project Cost (8) and will be managed by Penabulu Alliance as Executing Entity.

[4] **Project Cycle Management Fee charged by the Implementing Entity (9)** is calculated at 9.5% of Amount of Financing Requested and will be managed by Kemitraan (Partnership for Governance Reform) as Indonesia National Implementing Entity.

PART II: PROJECT JUSTIFICATION

A. PROJECT COMPONENTS DESCRIPTION

As described in Part I.B, the six Project objectives/component below is an integral part which are inseparable to one another and together contribute to the Project goal **to reduce vulnerability and to increase the adaptive capacity of community through the improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in sub-district of Muara Sugihan and Air Sugihan, South Sumatera**:

Component 1: Baseline Data and Knowledge

Objective: Assessment and mapping of risk and vulnerabilities caused by climate-related hazards and threats in estuary area of Musi River and Sugihan River in sub-district of Muara Sugihan and Air Sugihan.

Expected Outcome and Output:

1.1. Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.

1.1.1. Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed.

1.1.2. Action research of the impact of climate change on irrigation infrastructures, irrigation management system and agriculture practices are conducted.

1.2. The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed.

1.2.1. Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped.

1.2.2. Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.

1.3. Climate-related data are well managed and socialized to the wider community.

1.3.1. Climate related data management systems are developed in coordination with other key stakeholder.

1.3.2. Project best practices and lesson learned are documented, published and disseminated.

According to the 2012 Climate Change Adaptation Risk and Adaptation (KRAPI) document, Banyuasin Regency and Ogan Komering Regency are climate-affected areas. These impacts include the coastal, water, agriculture and health sectors. Muara Sugihan Subdistrict and Air Sugihan Subdistrict are located on the east coast of the island of Sumatra which is affected by climate change in the four sectors

In the 2012 KRAPI document, recommended climate adaptation activities in the water sector in the Sugihan River Basin include forest conservation and reforestation, which in this case is mangrove forests. For the agricultural sector, the recommended activities are increasing agricultural productivity, optimizing land, diversifying food, revitalizing cropping patterns, limiting agricultural land conversion, and coordinating between agencies

Methodology/Approach: The observation and assessment will be carried out in a participatory and action research approach, where experts and community will compile a research design and make observations together.

Table 4: Research Scope and Data Needed

Research Scope	Data Needed
Assess risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects.	• Village history and changes • Social problems • Economic problems and challenges • Land distribution and ownership • Agribusiness analysis (C/B analysis): crops, livestock, fisheries • Cultivation problem analysis • Market analysis
Conduct action research of climate change impacts on irrigation infrastructures, irrigation management system and agriculture practices.	• Flood impacted area • Drought impacted area • Vulnerable area from aberration • Number of household impacted and threatened by flood and drought • Sanitation and drainage condition • CC impact on irrigation infrastructure • Irrigation facilities damages
Assess and map policy and regulation at province, district, sub-district, and village level related to climate change adaption.	• List of policy related to climate in province and district level • List of Government programs and initiatives related to CC adaptation in province and district level • List of policy, program or initiative of village government related to CC adaptation

Component 2: Government Capacity

Objective: Strengthening the adaptive capacity of village, sub-district and district government in targeted area in South Sumatera to reduce risks associated with climate-induced socio-economic and environmental losses.

Expected Outcome and Output:

2.1. Developed strategy of climate change adaptation and adopted into a regular government planning cycle.

2.1.1. Sub-district and village level of spatial map and governance system are developed.

2.1.2. Landscape and sub-district level of climate change adaptation strategy and action plan are developed.

2.1.3. Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.

2.2. Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses.

2.2.1. Improved capacity of village and sub-district apparatus in the formulation of policy and regulation related to climate change adaptation.

2.2.2. Improved capacity of village and sub-district apparatus in the budget allocation/resource management and mobilization related to climate change adaptation.

Village government has very important role in the people lives in Indonesia today, Village Law provides large and broad authority including in terms of budget. Therefore the community ability to deal with climate change effects will depend on village government ability to carry out its duties and authorities. So this Project will enhance the ability of village governments to support communities in increasing resilience to climate change.

Methodology/Approach: This component development will be carried out in conventional ways in the form of knowledge transfer through training combined with direct practice. The question practice is action when and after training in formulation of regulations, policies, programs and budget allocations. Thus this component will produce a set of policies, rules, work programs or government budget allocations that can be implemented and have a direct effect on improving people's adaptability.

Policy development is not limited to the definition of a village policy but will be developed on a rural scale or landscape scale. The landscape approach will result in management of wetland ecosystems at village and supra-village level which involve and are supported by many parties.

Policy development is carried out by providing training and assisting village governments in the preparation of village regulations and village planning documents (RPJMDes) related to climate adaptation.

Component 3: Community Engagement

Objective: Strengthening the community awareness and participation in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in adaptation and climate risk reduction measures.

Expected Outcome and Output:

3.1. Strengthened community awareness and participation in adaptation and climate risk reduction measures.

3.1.1. Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area.

3.1.2. Community participation in landscape and sub-district level of climate change adaptation strategy and action plan (see 2.1.2.).

3.2. Strengthened community adaptive capacity in climate risk reduction measures.

3.2.1. Village regulation on sustainable-use of natural resources and climate change adaptation are developed.

3.2.2. Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market.

3.2.3. Irrigation infrastructures are revitalized through community-based cash for work mechanism.

3.2.4. Community-based and integrated irrigation management systems are developed.

This Project believes that rural communities are actually able to formulate adaptation strategies according to their living conditions. So, this Project will develop activities and methods that will raise people's ability to develop adaptation strategies.

Methodology/Approach:.

Methodology / Approach: This component will be implemented with a multidimensional approach through:

- **Increased community capacity related to strengthening farmer organizations and knowledge of food production techniques that are environmentally friendly**
- **Increased awareness of the protection of nature by awareness that people live in a tidal lowland ecosystem that is connected ecologically to each other.**
- **Use of the landscape approach by encouraging inter-village communities to develop joint and integrated strategies between villages.**
- **Develop and create adaptation strategies at the landscape level that involve many parties: the community, government and the private sector in the region.**

- **Strengthening the community in managing the tidal swamp irrigation system in their area so that a new social system will be created based on the development of adaptation from the effects of climate change.**

Component 4: Community Livelihood

Objective: Diversification and strengthening livelihoods of vulnerable communities in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in relation to climate change impacts, including variability.

Expected Outcome and Output:

4.1. Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.

4.1.1. Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries.

4.1.2. Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.

4.2. Diversified and enhanced livelihoods of vulnerable communities.

4.2.1. Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group.

4.2.2. Developed community or village-owned enterprises and cooperatives.

Activities in this component will support community life sources developments that are more adaptive to climate change. The agricultural sector will be developed towards integration between the agriculture-livestock-fisheries sub-sector which will improve efficiency in resource use and dependence on external resources.

Methodology/Approach: Livelihoods and economy development of community will be carrying out by Agrosilvofisheries System with an integrative and multi-sectoral approach.
Sector development (food crops for example) will also be used as a foundation in the development of the livestock sector and vice versa, likewise the other sectors development. One model that will be developed is agrosilvofisheries. This agrosilvofisheries system is a scheme for utilizing more environmentally friendly mangrove ecosystems in aquaculture sector. The strategy to encourage the community to run this livelihood is to make a demonstration plot and assist each of the application of new technologies and livelihoods.

Component 5: Ecosystem Resilience

Objective: *I*ncreasing the resilience of lowland and coastal ecosystem in estuary area of Musi River and Sugihan River in response to climate change and variability-induced stress.

Expected Outcome and Output:

5.1. The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.

5.1.1. Delineated and developed community-based conservation area.

5.1.2. Developed village regulation of community-based conservation area.

5.1.3. Developed conservation partnership schemes between corporation and village/communities.

5.2. Improved ecosystem condition affected by climate change.

5.2.1. Restoration of degraded mangrove and coastal forest area are conducted.

5.2.2. Restoration and plant enrichment of degraded upstream and watershed areas are conducted.

The community will be accompanied in agreeing to protection zones and also areas to be restored. Damaged coastal and mangrove forests will be rehabilitated. Greening will also be developed to protect riverbanks, or as road shelters and settlements. This component is expected to maintain and even improve environmental capacity in adapting to climate change

Methodology/Approach: The implementation of this component will be based on the Community-based Conservation approach. In applying this approach the main thing that must be done is finding basic reasons and motives that will increase community awareness and initiative in carrying out protection. A spatial approach will also be used in this initiative. The community and village government will be guided in arranging the village spatial with the main goal of establishing protected areas. And in the next process these agreements will be legalized by formulating formal policies at the village level. In addition, a partnership approach between the community and the company will be encouraged.

Component 6: Policy and Governance

Objective: Improving the policies and regulations related to irrigation management system and agricultural practices in South Sumatera that promote and enforce climate resilience.

Expected Outcome and Output:

6.1. Improved policies and regulations and enforce climate resilience.

6.1.1. Improved capacity of related institution to develop climate change adaptation policies, strategies and activities.

6.1.2. Developed cross-sectoral governance to optimize the irrigation infrastructures system.

6.2. Developed climate change monitoring system which enforces climate resilience.

6.2.1. Promoted and established climate change monitoring system at district and provincial level.

6.2.2. Established community-based climate change adaptation learning system at sub-district and village level.

This component is expected to be able to produce a policies product and initiatives of government in strengthening community adaptability, including in the development of an early warning system that can be implemented by the community.
The difference between component 2 and component 6 is that component 2 aims to increase government capacity both in climate change adaptation and collaboration. While component 6 is more about encouraging the emergence of policies and governance that support climate change adaptation.

Methodology/Approach: This project will support the government in improving the system of coordination and monitoring, especially in the use and management of tidal irrigation infrastructure which greatly affects community livelihoods. Steps to be taken in this component are to integrate policies and programs between central and regional government institutions by:

- **Utilization of the latest information technology in the form of a monitoring system that is always up to date and integrated with many parties.**
- **Bringing together community and village government initiatives in an effort to improve their adaptability to the effects of climate change**

The monitoring system built is a monitoring system of symptoms of climate change. This system is based on information technology that can be accessed by the government and the public

B. ECONOMIC, SOCIAL AND ENVIRONMENTAL BENEFITS

1. Economic Benefit

The Project is expected to provide concrete economic benefits to farmers who work and live in the Project targeted area in **Muara Sugihan Sub-district (Banyuasin District)** and **Air Sugihan Sub-district**

(Ogan Komering Ilir District), South Sumatera. Muara Sugihan Sub-district has a population of 41,085 people with a composition of 21,255 man (51.73%) and 19,830 women (48.27%). Population density of Muara Sugihan is 59 people/ km^2. The main income source of population relies on the agricultural sector with the main commodity types is rice which developed in 15 villages (68.2%). In addition, commodities developed include; pepper planted in 4 villages (18.2%); capture fisheries in 2 villages (9.1%) and horticulture in 1 village (4.5%). From the level of family income, the majority of families in Muara Sugihan are work in agriculture based on the percentage of farmer families, namely 52% or 5,860 families. While in 5,436 families (48%) work in non-agricultural fields.

This program will provide opportunities for farmer groups and their members to improve welfare through facilitation of capital and market access for their products, along with strengthening business management capacity and improving cultivation techniques that are more adaptive to environmental changes.

This program increase raw products to semi-finished or processed products that will increase the added value of commodities so that it will increase the amount of profits obtained by the community. Encouragement of youth and women's groups will provide additional income to families apart from the head of family.

The growth of processed business units will also correlate with the absorption of raw materials so that farmers producing raw materials will also enjoy the benefits of increasing product selling value by assuming local product sales will reduce transportation costs which are usually charged at the selling price.

2. Social Benefit

Project is expected to provide benefit in social aspects, especially at village level. Project interventions will be implemented based on community involvement and participation, and will be consolidated and integrated into the village development framework. Based on Law No. 6/2014 on Village, now the village has a new perspective compared to the old concept of village that can be presented in the following table[5]:

Table 5: Comparison of Old and New Concept of Village

	Old Concept	New Perspective
Legal Basis	Law No. 32/2004 and Government Regulation No. 72/2005	Law No. 6/2014
Main Approach	Decentralization-residual	Recognition-subsidiary
Position of Village	The government that is in the state government system (local state government)	Community governance, hybrid between self governing community and local self government.
Position of Head of Village	As the central government's operator	As a community leader
Role and Position of District	Districts/regencies have large and wide authority	Districts/regencies have limited and strategic authority
Objective Basis	Target	Mandate
Locus Politics	Location: Village as the Project location from upper government	Arena: Village as an arena for the Village community
Development Roles	Object	Subjects
Development Model	Government driven development or community driven development	Village driven development

In the section of Village Objectives and Governance (Articles 3 and 4 of Law No. 6/2014 on Villages) state that village arrangements are held, among others, on the basis of recognition, namely the recognition of the rights of origin and the basis of subsidiary, and the determination of local authority and

[5] Regulasi Baru, Desa Baru; Sutoro Eko (2015)

local decision-making for the benefit of the village community. Village arrangement among others aims to: encourage the initiative, movement, and participation of the village community for the development of potential village assets for common well-being; improve public services for villagers to accelerate the realization of public welfare; and advancing the economy of the rural community and addressing the national development gap. Based on the framework of village development with a new perspective as outlined above, the Project will be strongly supported by the involvement and participation of village communities and the commitment of the village government in managing village resources sustainably. It also includes the ability of the community and the village government in maintaining agricultural infrastructure that has a vulnerability to floods and the effects of tidal water.

Specifically, the Project will encourage the establishment of **Rural Areas**, as a cross-village agricultural infrastructure management unit which cannot be managed based on the territorial boundaries of each village. Law 26/2007 on Spatial Planning has defined Rural Areas as areas that have main activities of agriculture, including natural resource management with arrangement of area functions as places of rural settlements, government services, social services, and economic activities. Article 48 states that Spatial Planning for Rural Areas is directed to:

a. empowering rural communities,
b. local environment quality defense and area it supports;
c. natural resources conservation,
d. preservation of local cultural heritage,
e. eternal land of food agriculture defense for food security; and
f. balance protection of rural-urban development.

Law 6/2014 on Villages in the Rural Areas Development (Article 83 - 85) mandates that Rural Areas Development is a combination of inter-village development in one District/City. The Rural Areas development **aims to accelerate and improve the quality of services, economic development, and/or rural community's empowerment through a participatory approach by integrating various policies, plans, programs, and activities of parties in the designated area**. Rural Areas development is prioritized in developing potential and solving problems in rural areas. Rural Areas development will include:

a. use and utilization of village areas in the framework of establishing development areas in accordance with District/City spatial planning,
b. services that is carried out to improve the welfare of rural communities,
c. infrastructure development, rural economic improvement, and development of appropriate technology,
d. empowering rural communities to improve access to economic services and activities.

In addition, the Project will also develop and strengthen the capacity of civil social institutions, especially farmer and irrigation user groups. All this time, one of the causes of irrigation management systems are not functioning effectively is the weak management of tidal irrigation users in the Project targeted area. The institution of cross-village community-based irrigation systems management will have the least function: regulating water flow during high tide or low tide, dividing water supply needs according to farmers' needs, maintaining irrigation infrastructure that has been built, together with village governments and district governments improving the quality and coverage of irrigation systems, and coordinating community participation forms in collective irrigation management.

3. Environmental Benefit

One of the climate change adaptation strategies that will be implemented by the Project is to develop community-based conservation areas. This approach is an integration of two main approaches in climate change adaptation strategies, namely Community Based Adaptation (CBA) and Ecosystem Based Adaptation (EBA).CBA and EBA each have a special emphasis where the first relies on empowering local communities to reduce their vulnerability and the second relates to the use of ecosystems as a means of providing goods and services in facing climate change.

Community-based conservation areas will encourage the empowerment of local communities to have ability and authorities to manage existing resources by utilizing ecosystems as a base resource that will be developed as capital in facing climate change. In this case, the anthropocentric principles will be integrated with environmental principles where the impacts and consequences of two things are interrelated and cannot be separated. The explanation above is in line with the definition of community-based conservation, that is various practices to improve the conditions of natural resource management for coexistence between humans and nature (Mallen-Ruiz Isabel, 2015) where the interests of nature and humans are equally important in management goals. He also noted that the motivation of community involvement in a minimum conservation program would be related to three (3) things; the conservation program would create a livelihood, the income derived from the conservation program was greater than the loss caused by the cessation of economic activities as a program result, and it gives authority to local communities to manage resources so as to generate empowerment.

To reduce vulnerability to the risk of rising sea water and flooding, the Project will encourage rehabilitation activities in areas that are degraded along coastal areas, rivers and upstream areas. Watersheds can be divided into three components, namely: upstream, middle and downstream. The upstream ecosystem is the main water catchment area and flow regulator, the middle ecosystem as a distributor and regulator of water, while the downstream ecosystem is a water user. This relationship between ecosystems makes the watershed as a hydrological unit. Within the watershed integrated various factors that can lead to sustainability or degradation depend on how a watershed is managed.

Climate change is a matter that must be considered in spatial planning because climate change has a very large impact on the lives of all human/organism (Hilman, 2008). The spatial plan is basically a form of interaction between organism and their environment so that they can be harmonious, balanced to achieve the welfare of living beings and environmental preservation and sustainable development. The definition of spatial planning according to Law 26/2007 is a process to determine the structure of space and spatial patterns which include the preparation and stipulation of spatial plans. The impact of climate change will certainly affect existing spatial patterns so that impacts projections can be used as a basis for anticipation of spatial planning activities that adapt to climate change.

Therefore, this Project will facilitate spatial governance planning at the village level. This activity will become the basis for the preparation of climate change adaptation plans at the village level, Rural Areas (landscape approach), and sub-districts with a focus on adaptation measures on food security, disaster resilience, rural area development and water management.

Adaptation of food security is related to spatial planning in the context of spatial pattern that will be built where the existing pattern of adaptation can be in the form of adjusting the location of cultivation systems or technical choices and existing food cultivation system. Disaster resilience at the village level will be regulated through residential spatial patterns and protected area functions that can be a barrier to disasters. On a broader scale, namely rural areas, spatial integration with climate change adaptation can use a watershed approach where integration of spatial planning based on potential ecosystems is expected to be able to support resilience to disasters caused by climate change.

4. Risk Management and Negative Impact Mitigation

The Project has identified risks and negative impacts on social and environmental aspects that can affect the process of Project, including:

Table 6: Risk Management and Negative Impact Mitigation

No	Risk and Potential Negative Impact	Mitigation Plan
Social Aspect		
1	The prospective beneficiary community involved in the assessment will get information earlier than others. There is a risk of jealousy and confusion of information about planned activities.	Conduct socialization at the village level, so the information is received by the community relatively simultaneously

No	Risk and Potential Negative Impact	Mitigation Plan
2	Workers recruitment for activities will cause public unrest.	Workers for activities that do not require special abilities are preferred from local area.
3	Determining location of irrigation revitalization will cause public unrest	Determining location of irrigation revitalization through field studies and village meetings.
4	Determination of pilot location for community livelihood development will cause community anxiety.	Location determination through study on a pilot field for community livelihood development and village meetings
5	The development of cross-sector policies, institutional arrangements to optimize infrastructure, and existing irrigation facilities will get bureaucratic challenges that sectoral work.	Conduct consultations and discussions for mainstreaming cross-sector collaboration in optimizing existing irrigation infrastructure/facilities
Environmental Aspects		
1	Main road damage caused by land preparation and plant poly-bag waste in agroforestry activities.	Prepare budget for road repairs and provide waste disposal/recycling poly-bag waste.

The Project will develop the Environmental and Social Management System (ESMS) which will contain procedures to identify environmental and social risks for Project activities, to develop mitigation plans and timelines, and to identify potentially affected parties and involved in the mitigation plan.

5. Gender Equality and Social Inclusion

Gender equality and women's empowerment are among the 15 ESP principles such as: Principle 1 - compliance with the law; Principle 4 - human rights; and Principle 6 - core rights of workers, which always applies to every project/program under the Fund, and which risks need to be identified.

The Project will consult with stakeholders at all stages of the program cycle in gender responsive and equivalent way. Such participatory methods based on gender information are needed to address the main challenges of the lack of women representation or men in consultation at all stages of the project/program cycle. Facilitating and actively supporting increased women participation as important stakeholders ensures the inclusion of their needs, concerns, and abilities that are often ignored in planning, implementation, monitoring and evaluation. In particular, GESI approach will be carried out by the Project in accordance with the characteristics of each Project component with the following detailed plans:

Table 7: Gender Equality and Social Inclusion

Component	Gender Equality and Social Inclusion Plan	Measurement
1. Database and Knowledge	Dig data and information from women and vulnerable groups in assessment activities	The number of women and members of vulnerable groups who becomes respondents / informants / resource persons in assessment activities.
	Ensure the involvement of women and vulnerable groups in assessment activities.	Number of women and members of vulnerable groups involved in participatory assessment.
	Conduct a special assessment of local knowledge regarding the dynamics of tidal areas and estuaries, agriculture and climate aspects, as well as land aspects and biodiversity.	The amount of collected local knowledge and a consideration in determining policies in the program.
2. Government Capacity	Ensure the involvement of women and vulnerable groups in participatory village mapping.	Number of women and vulnerable groups involved in participatory village mapping.
	Ensure the involvement of women and vulnerable groups in training and *Focus Group Discussion* at the village level	Number of women and vulnerable groups involved in training and *Focus Group Discussion* at the village level
	Ensuring the involvement of women and vulnerable groups in the participatory campaign.	Number of women and vulnerable groups involved in the participatory campaign.
3. Community Engagement	Digging data and information from women and vulnerable groups in KAP survey activities.	The number of women and vulnerable groups who become respondents in the KAP survey.

Component	Gender Equality and Social Inclusion Plan	Measurement
	Ensure the involvement of women and vulnerable groups in climate change and conservation adaptation training.	Number of women and members of vulnerable groups involved in climate change and conservation adaptation training
	Ensuring the involvement of women and vulnerable groups in village meetings related to sustainable-use of natural resources and climate change adaptation.	Number of women and vulnerable groups involved in village meetings related to sustainable-use of natural resources and climate change adaptation.
	Ensure the involvement of women and vulnerable groups in making decisions related to revitalizing irrigation infrastructure.	Number of women and vulnerable groups involved in decision making related to revitalizing irrigation infrastructure.
	Ensure the involvement of women and vulnerable groups in activities to revitalize irrigation infrastructure.	Number of women and vulnerable groups involved in revitalizing irrigation infrastructure.
	Ensuring the involvement of women and vulnerable groups in workshops and implementation of community-based and integrated irrigation management systems.	Number of women and members of vulnerable groups involved in community-based and integrated irrigation management systems.
4. Community Livelihood	Ensuring the involvement of women and vulnerable groups in integrated and adaptive agriculture practices training that are integrating the crop, livestock and fisheries.	Number of women and members of vulnerable groups involved in integrated and adaptive agriculture practices training that are integrating the crop, livestock and fisheries
	Ensure the involvement of women and vulnerable groups in skill improvement skills of agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.	Number of women and vulnerable groups involved in skills improvement training of agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.
	Ensure the involvement of women and vulnerable groups in post-harvest business.	Number of women and vulnerable groups involved in post-harvest business.
5. Ecosystem Resilience	Ensure the involvement of women and vulnerable groups in decision making related to community-based conservation areas.	Number of women and vulnerable groups involved in decision making related to community-based conservation areas
	Ensure the involvement of women and vulnerable groups in participatory area mapping.	Number of women and vulnerable groups involved in participatory area mapping.
	Ensuring the involvement of women and vulnerable groups in village training and workshops related to community-based conservation areas.	Number of women and vulnerable groups involved in village training and workshop community-based conservation areas.
	Ensure the involvement of women and vulnerable groups in decision making related to Restoration and plants enrichment of degraded upstream and watershed areas.	Number of women and vulnerable groups involved in decision making related to the Restoration and plant enrichment of degraded upstream and watershed areas.
6. Policy and Governance	Ensuring the interests of women and vulnerable groups are taken into consideration in the formulation of policies and regulations related to climate change.	Policies and regulations related to climate change have accommodated the interests of women and vulnerable groups.

C. COST-EFFECTIVENESS

Cost effectiveness of Project will be calculated using the Economic Rates of Return (ERRs) method that will provide a single metric showing how the Project's economic benefits compare to its costs. ERR will provide a convenient metric, produced from a cost benefit analysis comparing the economic costs and benefits of a Project and/or policy measure. Cost benefit analyses, the costs of a Project include all

necessary economic costs—financial expenses covered by Adaptation Fund and other parties, as well as opportunity costs of non-financial resources expended. Benefits include the increased income of a country's population or the increased value-added generated by producers (firms and households) that can be attributed to the proposed Project. Value-added is defined as the value of gross production (or sales) minus the cost of intermediate inputs produced (and purchased from) outside the firm.

Projects target ERR **should passes a 10 percent hurdle rate with a 10-year scenario calculation after the Project ends** to be accountable for support by the Adaptation Fund. The ERR will be calculated upon the preparation of the full proposal. ERR spreadsheets will calculate each of the Project's interventions and will include: the Project description, including its economic rationale; the expected impacts, including detailed cost and benefit estimates; the key assumptions and study the effects of those assumption into the Project's returns and cost-benefit analysis. ERR calculation considers two scenarios: (a) the expected outcome with the Project; and (b) the expected outcome without the Project.

D. ALIGNMENT WITH NATIONAL/SUB-NATIONAL SUSTAINABLE DEVELOPMENT STRATEGIES

This proposed Project is appropriate with the following institutional policy and commitment framework at **National Level**:

1. **Nationally Determined Contributions (NDC) of Indonesia:** The document stated how the Government of Indonesia (GoI) will implement enhanced actions to study and map regional vulnerabilities as the basis of adaptation information system, strengthening institutional capacity, and dissemination sensitive policy and regulation of climate change. Furthermore, it is emphasized for local capacity strengthening, knowledge management improvement, convergent policy concerning climate change adaptation and disaster risks reduction, and also implementation of adaptive technology; to achieve the medium-term goal of climate change adaptation strategy of Indonesia which aims to reduce risks in all development sectors. The proposed approach of this Project is in line with the NDC document by focusing on mapping vulnerability and risk area, fostering public and institutional capacity building and also advocating relevant policy. Climate Risk and Climate Impact Assessment that will be conducted at village and city will provide vulnerability and risk map which will then be used to develop adaptation plans. The adaptation plan will be integrated into local development plan and advocated to the higher governance level to ensure synergize of climate-sensitive development plan from local to national. This sequence is appropriate with the First NDC of GoI where they see regional vulnerabilities as the basis of adaptation information system and foster climate-responsive policies.

2. **National Action Plan for Climate Change Adaptation (RAN-API):** RAN API is divided into five (5) sectors with Particular Areas Resilience as one of them. The particular sector is divided into 2 sub-sectors; these are Coastal Area Sub-Sector and Small Islands. There are five (5) developed strategies for sub-sector, which are: (a) Life stability of coastal and small islands communities over climate change threat; (b) Environmental quality improvement of coastal areas and small islands; (c) Adaptation structures development in coastal areas and small islands; (d) Adjustment of urban spatial plan by considering the risk of climate change; and (e) Development and optimization of research and information system on climate change in coastal areas and small islands. This Project will deliver these strategies in different Project components and outputs, including developing and implementing adaptation plan, mainstreaming process into local development and spatial plan, and also developing platform of knowledge management.

3. **Government Regulation No. 2/2015 on National Mid-Term Development Plan (RPJMN) 2015 – 2019:** In part 1.2.2 about Climate Change and sub-section 1.2.2.1 about Problems and Strategic Issues of RPJMN, decrease of Greenhouse Gas (GHG) emission (climate change mitigation) and community resilience improvement (climate change adaptation) were stated. The development of resilience coastal villages and communities that aims to be done by this Project is in line with the content of RPJMN. Furthermore, in RPJMN 2015-2019, the central government also set a target of Universal Access of Sanitation facilities in 2019; where the term of Universal Access means every population will be served with adequate sanitation facilities. Construction of individual and communal latrine for coastal communities with no adequate access to sanitation facilities that will be done under the Project will support the government target.

4. **Vulnerability Index Data Information System (2015) developed by Adaptation Directorate, Directorate General of Climate Change Control, Ministry of Environment and Forestry:** Based on the standards of this document, concluded that South Sumatra is an area with a very high level of vulnerability at the national level. Banyuasin and Ogan Komering Ilir District are the highest number of vulnerable villages in South Sumatera Province.

5. **Government Regulation No. 68/2002 on Food Security:** Food security is very important for national development to create qualified, independent, and prosperous Indonesian people through realization of food availability, safe, quality, nutritious, diverse and spread evenly throughout Indonesia and affordable for people's purchasing power. Government Regulation No. 68/2002 concerning Food Security is the implementation of Law 7/1996 on Food Security, article 50,that is defined Food Security as food for household is reflected in availability of adequate food, both quantity and quality, safe and affordable. The role of Provincial Government, District/City Government and/or the Village Government in food security is to carry out policies and be responsible for the implementation of food security in their respective territories, by considering the guidelines, norms, standards and criteria that is set by the Central Government. In addition, Provincial Government, District/City Government and/or Village Government encourage community participation in the food security implementation.
6. **Government Regulation No.20/2006 on Irrigation, especially in community participation on irrigation management:** Participatory Irrigation System Development and Management is a mandate of institutional empowerment of farmers' groups based on the participation of members in irrigation management is expected to be implemented well in order to address the main issues in irrigation utilization especially in areas with rice harvest failure risk which is caused by the lack of water supply in its agricultural system. The district/city governments are expected to establish strategies and programs for empowerment of water use farmers associations based on district/city policies in development and management of irrigation systems where on the other hand, central and provincial governments can provide technical assistance in accordance with the needs.

While in the other side, this proposed Project is appropriate with the following institutional and policy framework and commitment at **Provincial Level**:

1. **Regional Mid-Term Development Plan of South Sumatera Province (RPJMD Sumatera Selatan 2019-2023):** The Project is well suited to mission one (1) in RPJMD of South Sumatra Province in 2018-2023 that is, "Building South Sumatra based on community economic-based supported by strong agricultural, industrial, and UKM (Small and Medium Enterprises) sectors to overcome unemployment and poverty in urban and rural areas". In addition, it is also in line with some development targets in RPJMD of South Sumatera Province. 1) **Goals 3**: Increase agriculture, plantation, livestock, fishery and food sovereignty, 2) **Goal 4**: Decrease number of poor and underdeveloped villages, 3) **Goal 12**: Increase environmental quality.

2. **Risk Review and Adaptation of South Sumatra Climate Change 2012:** A study of susceptibility and adaptation capacity to climate change in South Sumatra Province has been conducted through Climate Risk and Adaptation Assessment (KRAPI) in 2012. KRAPI is one of the most active approaches developed by the Indonesian Ministry of Environment supported by GIZ (Deutsche GesellschaftfürInternationaleZusammenarbeit). One of the activities is coastal sector, with adaptation options of lowland maintenance and restoration, sediments transport management and so on. The result of study has become one of the bases for drafting a climate change adaptation program in Banyuasin and Ogan Komering Ilir regencies.

E. COMPLIANCE WITH RELEVANCY WITH NATIONAL TECHNICAL STANDARDS

1. **Ministry of Environment and Forestry Regulation No. 33/2016 on Guidance for Development of Climate Change Adaptation Action:** The regulation is a reference for national and local government to develop their climate change adaptation action plan and subsequently mainstreaming the plan into corresponding development plan. The regulation stated area/sector identification that will be the subject should be followed by climate vulnerability and risk assessment before developing climate change adaptation actions and its implementation priorities. The actions should be mainstreamed to

the corresponding development plan, program and policy. As explained on this proposal, general approach and activities of this Project are referring to and in line with the steps that is mentioned above; ensuring Project suitability to the regulation.

2. **Directorate General of Watershed Management and Protected Forest (PDASHL), Ministry of Environment and Forestry No. 8/2016 concerning Technical Guidelines for Implementing Forest and Land Rehabilitation Activities:** This Technical Guidelines are intended to provide technical direction to all parties in conducting RHL (Rehabilitation of Protected Areas) activities so that can be carried out properly. The aim is recovery of watershed carrying capacity and increasing public welfare.

3. **Standard Irrigation Planning Criteria, Ministry of Public Works 2013:** The Directorate General of Irrigation has succeeded in developing Irrigation Planning Standard for obtaining efficiency and uniformity in irrigation development planning. After the implementation for almost two decades, it was deemed necessary to conduct a review by paying attention to shortcomings and difficulties in implementing these standards, the development of agricultural technology, environmental issues (such as global warming and climate change), participatory policies, water-saving irrigation, and preparation for irrigation modern (effective, efficient and sustainable).

4. **Ministry of Marine and Fisheries Regulation No. 23/2016 concerning Management Plan of Coastal Area and Small Islands:** The regulation is developed to foster cross-level and cross-sector synergy in managing coastal area and small islands. It is stated that the relevant strategic plan should consist of cross-level and cross-sector policy directive for dedicated development plan area through the development of objectives, targets, and broader strategy, as well as implementation targets that equipped with appropriate indicators to monitor the plan. It further states that the management plan should contain policy framework, procedure and responsibilities in decision-making process among stakeholders regarding agreement on resource use or development activity in the designated zone. The Project supports the regulation by fostering cross-sector coordination in its approach; involving not only government actors but also non-government institutions including common public, driving multi-stakeholder involvement and coordination at any steps. Formation and operation of village and city climate working group as well as implementation of the arranged coordination line under the Project is the example of this cross-level and cross-sector synergy. The development process of city development plan that considers vertical approach and results of Project further demonstrate how the city policy directives are made with a synergized process across different level and sector.

F. PROJECT DUPLICATION

Currently, **there is no duplication** of this Project with other funding sources. No other program/project is currently working on the same issue and at the same target location as proposed by the Project, both regional government, corporations and other development agencies/CSOs programs/projects.

G. LEARNING AND KNOWLEDGE MANAGEMENT

This Project will produce a lot of knowledge about the process of developing community adaptability, especially in coastal areas. This knowledge can be built through the assessment and research process and also through the process of reporting and making documentation of each activity. Development and management in this Project can be explained as follows:

1. **Assessment and Participatory Research:** This Project will begin with an in-depth assessment of conditions and situation of the implementation area both socially and biophysically. More specifically, this assessment is oriented to explore various data and information about the impacts and forms of vulnerability to climate change. Through this process, specific and actual information and knowledge will be explored related to the field conditions (Project area). It is also explored about the community knowledge related to their adaptation strategies to climate change effects that had occurred.

2. **Reporting, Documentation, and monitoring Process:** In addition to assessment and research, throughout the Project implementation a reporting, documentation and monitoring process will be carried out in accordance with the plans that have been prepared. The process of reporting,

documentation and results of supervision will produce a lot of data and information which if processed will be a knowledge source that is very important as a learning source. From the two components above, a lot of data and information will be produced as an initial source of knowledge and learning. Therefore it is necessary to process data and information to produce knowledge. In addition, this Project will also develop various dissemination processes so that knowledge and learning can be utilized by the wider community. The dissemination process will be carried out through:

- **Capacity Building Process:** Capacity building will involve many parties outside the community and local government. Various speakers from the government, academics and practitioners both at the provincial and national and maybe international levels will join and work together to share knowledge about adaptation strategies to climate change. The target group can also convey the results of field learning to experts so it will create an inclusive knowledge creation.

- **Media Placement and Publication:** The process of dissemination can also be done by utilizing communication technology that has been highly developed at this time. Information, data, knowledge and learning will be disseminated through the following communication media: community bulletins handled by the village youth group, documentary movie, workshop in district and province level, publication through the Penabulu website and **p**ublications through local newspapers and television.

H. CONSULTATION PROCESS

During proposal preparation, a consultation process with the government of South Sumatra Province and Banyuasin District Government was carried out. Consultation in the Province is carried out with the Regional Development Planning Board (Bappeda) of South Sumatra, specifically *the Infrastructure and Regional Development Sector* and *the Economic and Development Funding Sector*. Consultation in district was carried out with the Regional Development Planning Board (Bappeda) of Banyuasin District.

The Regional Development Planning Board of South Sumatra recommends that this program has to refer to the 2012 Climate Risk and Adaptation Assessment (KRAPI) document. In addition, the provincial government will also support the program as part of the Poverty Alleviation program. The provincial government recommends that location selection be related with the status of poor villages in South Sumatra, while the Bappeda of Banyuasin District provides advice on the importance of strengthening community groups and coordination between the central, provincial and district governments.

I. JUSTIFICATION FOR FUNDING REQUESTED

The justification for Adaptation Funding request is built on the logical benchmarking between the existing (baseline) condition and the trend that will occur if there is no Adaptation Fund support through the Project, compared to the expected condition if the Project is implemented with Adaptation Fund support. The pairing can be illustrated in the table on the following pages.

J. SUSTAINABILITY

Several sustainability plans developed since the inception of the Project which are expected to ensure continuity of the climate change adaptation program after the completion of the Project are as follows:

1. Financial Sustainability

There are important questions about the financial sustainability of the Regional Government funding mechanism to promote climate change adaptation programs when funding from this Project has been completed, as well as the initiatives financial sustainability at the community level, are there any financial benefits sustained if the Project funding is over. Funding related to climate change adaptation programs will be encouraged through regional regulations and multi-stakeholder forums that will contain cross-regional Regional Device Organization (OPD), private sectors, and representatives of village governments and communities. Hopefully, the existence of regional regulations at both district and provincial levels can become a legal umbrella for strategic programs implementation and climate change adaptation action programs for related OPD. The Forum has a role in developing a cross-sectoral climate change adaptation action plan where it can be used as input for planning and budgeting each member

both OPD through APBD funding, village government through budgeting village funds, and companies through internal funding schemes.

Financial sustainability at beneficiary level will be carried out through several schemes. Management of community-based conservation areas will be facilitated through a partnership scheme between companies and managers. This is expected to be a sustainable alternative for community-based conservation area management. For environmental rehabilitation activities at the local level, financial sustainability will be encouraged through the planting of either mangrove perennials or other types of forest plants that are integrated with agricultural activities through agroforestry and agrosilvofisheries practices in combination with either mangrove or multipurpose tree species (MPTS) such as fruit or carpentry wood producer with short-term plants. Through this scheme, it is expected that the community will be motivated to carry out perennials planting activities because besides having conservation values, they also have economic value that can be obtained.

Financial sustainability of beneficiaries will also be encouraged through the development of processing technology in agricultural products, training in potential commodity business management, and facilitation of business and marketing formation. It is expected that this scheme will produce a sustainable financially business unit so that it can become an alternative income for the community and motivate other businesses growth in the Project area.

Table 8: Justification for Funding Requested

Component/Expected Outcome		Database Condition	Without AF Scenario	Additionality AF
Component 1: Database and Knowledge				
Outcome 1.1.	**Assessing and mapping risk and vulnerabilities caused by climate-related hazards and threats.**	Lack of data and maps regarding disaster risk and vulnerability to disasters and threats caused by climate change,	Without AF support, weak data will cause difficulties in determining appropriate actions in disaster mitigation and adaptation caused by climate change	After the Project with AF support is running, data and maps on disaster risk and vulnerability to disasters and threats caused by climate change will be available and updated.
Outcome 1.2.	**Assessing the levels of climate change adaptive capacity, including the availability of early warning systems.**	Lack of data related to the level of climate change adaptation, including the availability of an early warning system.	Without AF support, there is no adequate data available regarding the level of climate change adaptation, including the availability of an early warning system.	After the Project with AF support is running, adequate data will be available regarding the level of climate change adaptation, including the availability of an early warning system.
Outcome 1.3.	**Climate-related data are well managed and socialized to the wider community**	Poor management of climate-related data and lack of data socialization to the wider community	Without AF support, there is insufficient data related to climate and data socialization.	After the Project with AF support is running, climate related data will be managed and data will be socialized to the wider community.
Component 2: Government Capacity				
Outcome 2.1.	**Developing strategy of climate change adaptation and adopting into a regular government planning cycle.**	Weak development of climate change adaptation strategies and lack of adoption in government planning circles.	Without AF support, the climate change adaptation and adoption strategies in the government planning circle will be weak.	After the Project with AF support is running, the climate change adaptation strategies in the government planning circle will increase.
Outcome 2.2.	**Strengthening capacity of village, sub-district and district government apparatus to reduce risks related to climate socio-economic and environmental losses.**	Weak capacity of village, sub-district and district apparatus to reduce the risks related to socio-economic and environmental losses caused by climate change.	Without AF support, the capacity of village, sub-district and district apparatus to reduce the risks related to socio-economic and environmental losses caused by climate change is not strong enough.	After the Project with AF support is running, the capacity of village, sub-district and district apparatus to reduce the risks related to socio-economic and environmental losses caused by climate change will increase.
Component 3: Community Engagement				
Outcome 3.1.	**Strengthening community awareness and participation in adaptation and climate risk reduction measures.**	Weak awareness and community participation in adaptation actions and reducing the risk of climate change.	Without AF support, the community is less aware and less participates in adaptation actions and risk reduction in climate change.	After the Project with AF support is running, community awareness and participation in climate change adaptation and risk reduction actions will increase.

Component/Expected Outcome		Database Condition	Without AF Scenario	Additionality AF
Outcome 3.2.	**Strengthening community adaptive capacity in climate risk reduction measures.**	Lack of community capacity to carry out climate change risk reduction actions.	Without AF support, the capacity of communities to carry out climate change risk reduction actions is inadequate.	After the Project with AF support is running, the capacity of the community to carry out climate change risk reduction measures will increase.
Component 4: Community Livelihood				
Outcome 4.1.	**Strengthening livelihoods of vulnerable communities in relation to climate change impacts, including variability.**	Weak livelihoods of vulnerable groups related to climate change effects.	Without AF support, the livelihoods of vulnerable groups will be threatened by the negative impacts of climate change.	After the Project with AF support is running, the livelihood of vulnerable groups related to the impact of climate change will be more resilient to face the negative impacts of climate change.
Outcome 4.2.	**Diversified and enhanced livelihoods of vulnerable communities**	The livelihoods of vulnerable groups are less diverse and need improvement.	Without AF support, the livelihoods of vulnerable groups are less diverse and need improvement to deal with climate change.	After the Project with AF support is running, the livelihood of vulnerable groups will vary and increase income.
Component 5: Ecosystem Resilience				
Outcome 5.1.	**Conserving the essential areas in order to maintain the ecosystem services and carrying capacity.**	Weak protection efforts for important areas that must be protected to maintain carrying capacity and environmental services.	Without AF support, the important areas that must be protected will be threatened.	After the Project with AF support is running, the important area will be protected from the damage threat.
Outcome 5.2.	**Improving ecosystem condition affected by climate change.**	Lack of improvement efforts, the condition of the ecosystem decreases caused by climate change.	Without the support of AF, the ecosystem condition will decrease caused by climate change.	After the Project with AF support is running, the ecosystem condition will be more residence.
Component 6: Policy and Governance				
Outcome 6.1.	**Improving policies and regulations and enforcing climate resilience.**	Lack of policies and regulations that encourage efforts to realize climate resilience.	Without the support of AF, policies and regulations that encourage efforts to realize climate resilience are still lacking.	After the Project with AF support is running, there will be policies and regulations that encourage efforts to realize climate resilience so as to support adaptation actions in the field.
Outcome 6.2.	**Developing climate change monitoring system which enforces climate resilience.**	Weak climate change monitoring systems that strengthen climate resilience.	Without AF support, a climate change monitoring system that strengthens climate resilience is inadequate.	After the Project with AF support is running, there will be a strong system for monitoring climate change that strengthens climate resilience.

2. Institutional Sustainability

Institutional sustainability will be carried out by forming a multi-stakeholder forum at the landscape level (2 districts) where this forum will act as a cross-sectoral institution related to climate change adaptation programs at the regional level. Forum members will be facilitated for capacity building related to climate change adaptation and climate data management. It is expected that the forum coordinator will get approval through a Governor's Decree (SK Governor) so that the validity and legality of forum are recognized as aligned with the relevant OPD institutions. Institutional sustainability will also be carried out by establishing a group of Farmer Management and water User (P3A) and the Association Farmer Management and water User (GP3A), which is an irrigation management container at the local level. In addition, it was also encouraged the establishment of a multi-stakeholders forum related to integrated irrigation management that contained related OPD and P3A.

3. System Sustainability

To ensure the sustainability of the system developed at village level, including the space management system, it must be based on community needs assessment. It should also be studied who will benefit and be disadvantaged by the development of this system. All society elements are certain to be heard by their aspirations and then steps are prepared with the lowest social risks, likewise, the development of irrigation management systems in tidal swamp ecosystems. Meanwhile, for system development at the cross-village level, it should linkage with the cycle of planning and implementing development in the government. It is also necessary to ensure that the system to be developed and implemented can be managed by existing human resource capabilities. It is also necessary to develop a system that is simple, cheap but effective for existing problems.

K. ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

Some environmental risks that are likely arising in this Project implementation are the potential of natural disasters such as floods that can obstruct Project execution. It will also occur during the revitalization process of irrigation infrastructures which have the potential to temporary stop the supply and drainage systems during development. While some potential social risks can be estimated are as follows: (a) the gap between the villages being accompanied and not accompanied in one district, due to funding constraints; (b) communities rejection in efforts to protect the environment and conservation that are contrary to short-term interests; (c) lack of motivation from the community in developing community or farmer institutional capacity and prefer physical approaches in the form of infrastructure development.

Table 9: Checklist of Environmental and Social Principles

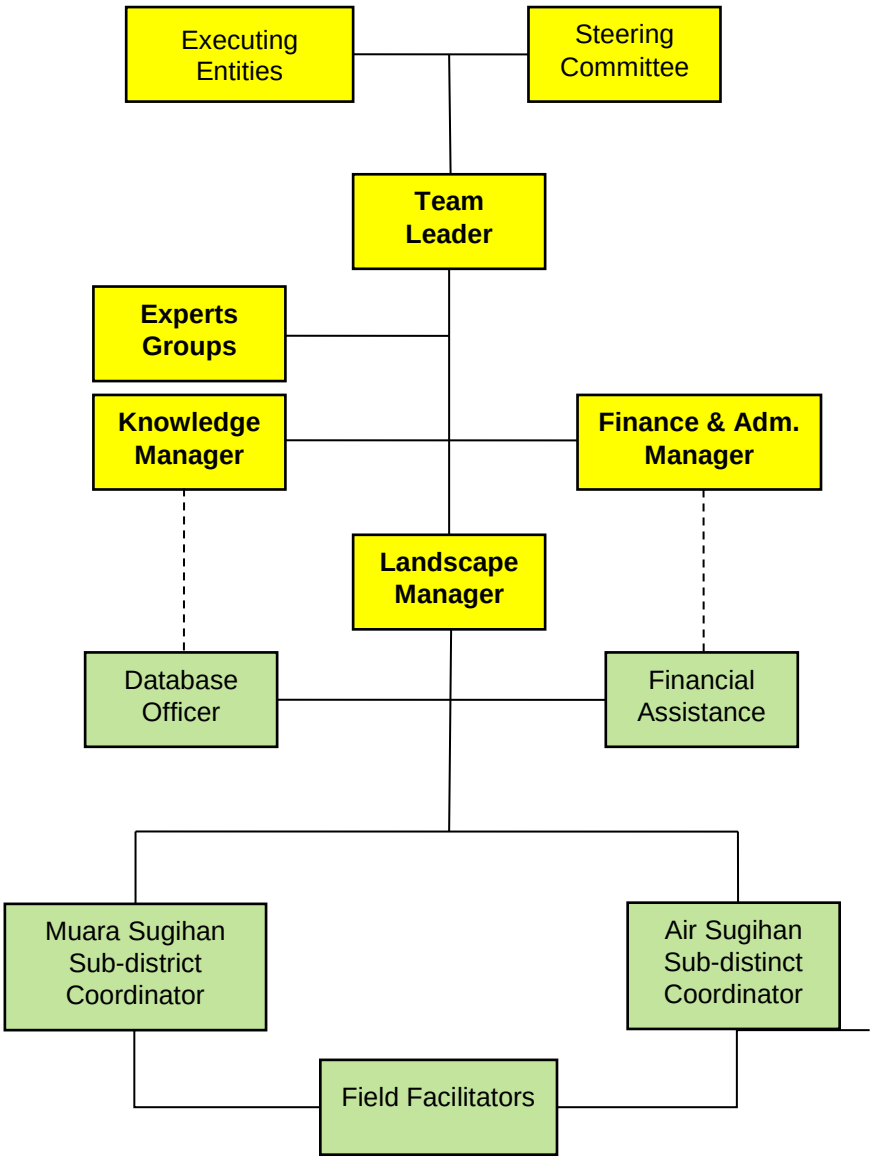
Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		
Access and Equity		
Marginalized and Vulnerable Groups		
Human Rights		
Gender Equality and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

PART III: IMPLEMENTATION ARRANGEMENTS

A. PROJECT ARRANGEMENTS

Project will be led by a **Team Leader**. In carrying out its duties, the Team Leader will be assisted by 3 managers, namely: **Knowledge Management Manager**, **Finance and Administration Manager**, and **Landscape Manager**. **Expert Groups** will assist the Team Leader in technical considerations. The Project will be run using an organizational structure such as the following:

Figure 4: Project Organizational Structure



The following are detailed assignments for each element in the Project organization:

Table 10: Project Arrangements

Position	Task and Responsibilities
Steering Committee	The Steering Committee (SC) will oversee the entire Project implementation to ensure that the facilities and mechanisms have run the Project effectively so as to achieve the desired results, while also representing the voices of stakeholders who are not directly responsible for the Project. In the process of Project, SC will provide technical guidance for each PMU for the Project implementation, including guidance on the policy advocacy process at the national level. The frequency of meetings will be scheduled for each quarter of the activity. Steering Committees that will be involved include: National Governments, Provincial Governments, Local Governments, Village Governments, Academics, and civil society.
Executing Entities	Consortium will be responsible for supervising, supporting and providing technical guidelines for the following activities: 1. Project preparation, including selecting PMU and linking the Steering Committee to the Project 2. Project implementation, including communication and coordination with the Steering Committee, 3. Project monitoring evaluation of PMU, 4. Financial monitoring and assessment of Project implementation,
Team Leader	The Team Leader will direct PMU in implementing the Project: 1. Together with PMU, the Project Implementation Plan will be prepared as a guide for implementing the Project, 2. Ensure that the Project in accordance with the objectives, 3. Together with the Partnership in monitoring progress and achievement results, 4. Coordination Project progress and Project problems to the Steering Committee.
Expert Groups	1. Provide technical analysis related to Project implementation, 2. Making technical reports on Project implementation, 3. Make reports on research / assessment results, 4. Risk and impact analysis of Project implementation,
Finance and administration Manager	The Finance Manager will be responsible for financial and administrative management for overall Project implementation. 1. Ensure that the Project budget is managed according to the agreement in terms of budget line and cash flow 2. Prepare accounting reports and financial statements in accordance with generally accepted standards 3. Accompanying the financial audit process by an independent party
Project Manager	Will lead the PMU in implementing the Project as a whole in day-today basis. Among the specific responsibilities are: 1. Coordination with Outcome Leader Forest Social and Outcome Leader Coastal in preparing the Project Implementation Plan as a guide in implementing the Project, 2. coordination with provincial and district governments, 3. Ensuring the course of Project is in accordance with the goals and results to be achieved, and 4. Report the Project results in the Team Leader.
Knowledge Management Manager	1. Responsible for managing all data and information produced by the Project, 2. Develop and manage Project media publication, 3. Develop the lesson learned dissemination strategy produced by the Project,
Landscape Manager	1. Make a work plan per 3 months, 2. Supervise the performance of the Sub-District Coordinator, 3. Prepare reports on Project progress every 3 months, 4. Coordinate with government institution at the sub-district and district level, 5. Carry out the capacity building process at the district and provincial level.
Sub-district Coordinator	1. Create a monthly work plan together with village facilitator, 2. Supervise the performance of village facilitators, 3. Carry out a capacity building process at the sub-district level.
Village Facilitator	1. Carry out field work plans, 2. Carry out capacity building at the village and community level, 3. Develop institutional systems at the village level.

B. PROJECT RISK MANAGEMENT

All risks in the Project implementation are analyzed during design process with all relevant stakeholders' participation. A mitigation strategy is established to ensure the risk is well managed. The table below presents the types, description, and level of risk and the strategies that have been and will be done to minimize the risks.

Table 11: Project Risk Management

Type of Risk	Description of Risk	Category (H/M/L)	Risk Mitigation Strategy
Institutional	Not all sectors in the local government have supported the Project implementation.	Medium	To ensure Project achievement will be achieved, PMU will continue to build active coordination and communication with all sectors in the local government.
	Project implementers have unequal knowledge about program implementation.	Low	Before the program implementation, a workshop process will be carried out to dissect all Project work plans.
Financial	Late disbursement of funds, procurement and institutional efficiency (long approval process and others) that delay Project implementation	Medium	Building active communication with the grantor and fulfilling all forms of financial procedures in budget disbursement.
Social	Communities are less aware of climate change and have lack of enthusiasm to respond disasters. If beneficiaries are not fully aware of climate change impacts, it is difficult to gain their commitment in forest food development and climate change adaptation.	Low	This Project will implement and introduce participatory methods to the community, so that they can be provided with understanding on climate change impacts. In addition, the mentoring process will be undertaken at the village level by utilizing field facilitators in each of Project target village.
	Lack of community (direct beneficiaries) support to the Project.	Low	1. Building good relationships with local government (village level), community and community leaders (direct beneficiaries) before start the Project. **2.** The group's formation at the village level can gather all people/levels that are in target community.

C. ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

To overcome the risks and negative impacts of the Project, the actions taken are:

a. conduct a self-screening and self-assessment process in order to determine compliance with the ESP
b. review compliance of Project proposals with the ESP through its environmental and social management system (ESMS)
c. to screen Project proposals to identify potential adverse impacts and risks early in the Project cycle. This process begins with assessing a Project according to Principle 1 (compliance with the law), which is to screen against applicable domestic and international laws. The process continues with screening against the 14 other principles to determine which are applicable to the Project.

Based on the results of preliminary identification of possible environmental and social risks, the following measures will be taken:

Table 12: Environmental and Social Risk Management

No.	Risk/ Impact	Measures
1.	The community of prospective beneficiaries involved in the assessment will get information that is earlier than others. There is a risk of jealousy and confusion regarding information on planned activities.	Planning to complete consultations at the village level before the activities are carried out
2.	Recruitment of workers for activities will cause public unrest	Give priority to local communities to be involved in work that does not need special skills
3.	Main road damage due to land preparation and plant poly-bag waste in agroforestry activities	Maintenance of the main road being passed, handling waste, counseling to farmers and the community on handling waste
4.	Determining the location of revitalization of irrigation will cause public restlessness	Conduct consultation with village officials and community leaders in determining irrigation revitalization locations
5.	Determination of pilot locations for community livelihood development will cause community restlessness	Conduct consultation with village officials and community leaders in determining pilot locations for community livelihood development
6.	Development of cross-sectoral policy / regulation / institutional arrangements for optimizing existing irrigation infrastructure / facilities will get bureaucratic challenges that work in a sectoral manner	Conduct a series of cross-sectoral discussions to build collective perceptions and understanding

D. MONITORING AND EVALUATION

The framework of Project monitoring and evaluation per Project component/objectives can be presented in the following table:

Table 13: Monitoring and Evaluation Framework

Project Result	Indicators	Target	Sort by	Method and Tools	Freq.
Component 1: Data and Knowledge **Objective:** Assessment and mapping of risk and vulnerabilities caused by climate-related hazards and threats in estuary area of Musi River and Sugihan River in sub-district of Muara Sugihan and Air Sugihan.					
Outcome 1.1. Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.	2 detail report document on CC risk and vulnerability in sub-district level	18th month	Vulnerability context	Assessment and Research progress report review	Quarterly
Outcome 1.2. The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed.	2 detail analytic document on community capacity in CC adaptation in sub district level	6th month	Community capacity	Assessment and Research progress report review	Quarterly
Outcome 1.3. Climate-related data are well managed and socialized to the wider community.	50% of 77,000 residents and related government agency received information on assessment results.	24th month	None	Capacity building and awareness report review	Quarterly
Output 1.1.1. Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed.	41 report on risk and vulnerable report in village level	3rd month	Vulnerability context	Assessment and Research progress report review	Quarterly
Output 1.1.2. Action research of the impact of CC on irrigation infrastructures, management system and agriculture practices are conducted.	41 reports on Participatory Action Research in village level	18th month	Impact	Assessment and Research progress report review	Quarterly

Project Result	Indicators	Target	Sort by	Method and Tools	Freq.
Output 1.2.1. Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped.	41 report in village level, 2 report in sub district and district, 1 report in province level	3rd month	Policy	Assessment and Research progress report review	Quarterly
Output 1.2.2. Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.	41 report in village level	6th month	Community capacity	Assessment and Research progress report review	Quarterly
Output 1.3.1. Climate related data management systems are developed in coordination with other key stakeholder	A platform on area data management developed and managed by key stakeholders	21st month	Coordination	Publication and dissemination report review	Quarterly
Output 1.3.2. Project best practices and lesson learned are documented, published and disseminated.	All media (Village Bulletin, documentary movie, assessment report) published and disseminated	24th month	Awareness	Publication and dissemination report review	Quarterly
Component 2: Government Capacity **Objective:** Strengthening the adaptive capacity of village, sub-district and district government in targeted area in South Sumatera to reduce risks associated with climate-induced socio-economic and environmental losses.					
Outcome 2.1. Developed strategy of climate change adaptation and adopted into a regular government planning cycle	41 villages in the Project area adopt CC strategy in their yearly and midterm planning; District and province government adopt CC strategy in yearly planning and mid-term planning	24th month	Policy	Policy and regulation improvement report review	Quarterly
Outcome 2.2. Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses.	100 government staff from related agency and village government involved in the capacity building process.	24th month	Awareness	Capacity building and awareness report review	Quarterly
Output 2.1.1. Sub-district and village level of spatial map and governance system are developed.	41 spatial planning document in village level include spatial map in each village	9th month	Village regulation	Policy and regulation improvement report review	Quarterly
Output 2.1.2. Landscape and sub-district level of climate change adaptation strategy and action plan are developed.	2 documents of Adaptation Strategy in Sub District level	12th month	Landscape approach	Policy and regulation improvement report review	Quarterly
Output 2.1.3. Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.	41 midterm planning in village level improved with disaster risk reduction, food security and sustainable agriculture, and water management aspect	24th month	Village regulation	Policy and regulation improvement report review	Quarterly
Component 3: Community Engagement **Objective:** Strengthening the community awareness and participation in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in adaptation and climate risk reduction measures.					
Outcome 3.1. Strengthened community awareness and participation in adaptation and climate risk reduction measures.	50% from 77.000 people in Project area involved in community awareness activities	24th month	Risk reduction	Capacity building and awareness report review	Quarterly

Project Result	Indicators	Target	Sort by	Method and Tools	Freq.
Outcome 3.2. Strengthened community adaptive capacity in climate risk reduction measures.	20% from 77.000 people in Project area reduced their risk from climate change impact	24th month	Risk reduction	Capacity building and awareness report review	Quarterly
Output 3.1.1. Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area.	Involvement of 41 village government, 2 sub districts and districts government, 4 private sectors in the forum	24th month	Landscape approach	Capacity building and awareness report review	Quarterly
Output 3.1.2. Community participation in landscape and sub-district level of climate change adaptation strategy and action plan	5% people in Project area involved actively in formulating and planning process	6th month	Landscape approach	Policy and regulation improvement report review	Quarterly
Output 3.2.1. Village regulation on sustainable-use of natural resources and climate change adaptation are developed.	41 village regulation/policy developed	12th month	Village regulation	Policy and regulation improvement report review	Quarterly
Output 3.2.2. Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market.	41 farmer organization in 41 village improved related to good and adaptive agriculture practices, access to finance and sustainable market	21th month	Farmer institution	Capacity building and awareness report review	Quarterly
Output 3.2.3. Irrigation infrastructures are revitalized through community-based cash for work mechanism.	50% of damaged facilities improved by the Project	12th month	Irrigation revitalization	Environment and infrastructure improvement report review	Quarterly
Output 3.2.4. Community-based and integrated irrigation management systems are developed	41 Community-Based SOP on integrated irrigation system established in village level	24th month	Irrigation revitalization	Policy and regulation improvement report review	Quarterly
Component 4: Community Livelihood **Objective:** Diversification and strengthening livelihoods of vulnerable communities in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in relation to climate change impacts, including variability.					
Outcome 4.1. Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.	50% of vulnerable communities improved their livelihood in relation to climate change impacts	12th month	Livelihood	Livelihood improvement report review	Quarterly
Outcome 4.2. Diversified and enhanced livelihoods of vulnerable communities.	5 new type of livelihoods source developed	24th month	Livelihood	Livelihood improvement report review	Quarterly
Output 4.1.1. Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries.	41 piloting area in each village of Integrated and Adaptive Agriculture Practices developed	12th month	Integrated agriculture	Livelihood improvement report review	Quarterly
Output 4.1.2. Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial	10 ha of agrosilvofisheries system piloting area developed in potential area	12th month	Integrated agriculture	Livelihood improvement report review	Quarterly
Output 4.2.1. Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group.	10 unit of small-scale post harvesting /processing business developed	24th month	Livelihood	Livelihood improvement report review	Quarterly
Output 4.2.2. Developed community or village-owned enterprises and cooperatives.	10 unit of community or village-owned enterprises and cooperatives well operated	24th month	Livelihood	Livelihood improvement report review	Quarterly

Project Result	Indicators	Target	Sort by	Method and Tools	Freq.
Component 5: Ecosystem Resilience **Objective:** Increasing the resilience of lowland and coastal ecosystem in estuary area of Musi River and Sugihan River in response to climate change and variability-induced stress.					
Outcome 5.1. The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.	The remaining ecosystems are mapped and formally agreed to be maintained by the community and village government	21st month	Conservation	Environment & infrastructure improvement report review	Quarterly
Outcome 5.2. Improved ecosystem condition affected by climate change.	1000 ha of degraded ecosystem improved or rehabilitated	24th month	Conservation	Environment & infrastructure improvement report review	Quarterly
Output 5.1.1. Delineated and developed community-based conservation area.	75% potential conservation/ protected area in delineated and developed	18th month	Conservation	Environment & infrastructure improvement report review	
Output 5.1.2. Developed village regulation of community-based conservation area.	75 % villages in the potential conservation area develop conservation regulation	18th month	Conservation	Policy and regulation improvement report review	Quarterly
Output 5.1.3. Developed conservation partnership schemes between corporation and village/communities	4 partnership models	21th month	Conservation	Policy and regulation improvement report review	Quarterly
Output 5.2.1. Restoration of degraded mangrove and coastal forest area are conducted.	500 ha of degraded mangrove and coastal forest restored/rehabilitated	24th month	Conservation	Environment & infrastructure improvement report review	Quarterly
Output 5.2.2. Restoration and plant enrichment of degraded upstream and watershed areas are conducted.	Restoration and plant enrichment of 500 ha degraded upstream and watershed areas	24th month	Conservation	Environment & infrastructure improvement report review	Quarterly
Component 6: Policy and Governance **Objective**: Improving the policies and regulations related to irrigation management system and agricultural practices in South Sumatera that promote and enforce climate resilience.					
Outcome 6.1. Improved policies and regulations & enforce climate resilience.	Policy and regulation in district and level improved related to climate resilience	9th month	Policy	Policy and regulation improvement report review	Quarterly
Outcome 6.2. Developed climate change monitoring system which enforces climate resilience.	Monitoring system established in sub district and district level	24th month	Monitoring system	Policy and regulation improvement report review	Quarterly
Output 6.1.1. Improved capacity of related institution to develop climate change adaptation policies, strategies and activities.	Staffs from related institution involved actively in the process of developing CC adaptation policy and strategy	9th month	Coordination Landscape approach	Policy and regulation improvement report review	Quarterly
Output 6.1.2. Developed cross-sectoral governance to optimize the irrigation infrastructures system.	Establishment of o coordination platform/regulation in district level among related institution (Bappeda, Dinas PU, Dinas Pertanian)	9th month		Policy and regulation improvement report review	Quarterly
Output 6.2.1. Promoted and established climate change monitoring system at district and provincial level.	agreement between the provincial and district governments regarding climate change monitoring systems	12th month		Policy and regulation improvement report review	Quarterly
Output 6.2.2. Established community-based climate change adaptation learning system at sub-district and village level.	Agreement and *Standard Operating Procedure* between the provincial and district governments regarding climate change monitoring systems	24th month		Capacity building and awareness report review	Quarterly

E. RESULT FRAMEWORK

The table showing the Project's logical framework, accompanied by a baseline benchmarking and expected result that the Project would like to achieve in year 1 and year 2, accompanied by the means of verification and the assumptions used are presented on the following pages.

Table 14: Result Framework

Outcome/output	Indicator	Base line	Target		Sources of Verification	Risk and Assumption
			Y1	Y2		
Component 1: Data and Knowledge **Objective: Assessment and mapping of risk and vulnerabilities caused by climate-related hazards and threats in estuary area of Musi River and Sugihan River in sub-district of Muara Sugihan and Air Sugihan.**						
Outcome 1.1. Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.	2 detail report document on CC risk and vulnerability in sub-district level	0	1	1	Activity report and documentation	There are no social barriers during the assessment process
Outcome 1.2. The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed.	2 detail analytic document on community capacity in CC adaptation in sub district level	0	2		Activity report and documentation	There are no social barriers during the assessment process
Outcome 1.3. Climate-related data are well managed and socialized to the wider community.	50% of 77,000 people received information on the results of the assessment. and 50 personnel at district and province levels can understand the data well	5%	20%	30%	Media publication	Data collection and media management run smoothly
Output 1.1.1. Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed.	41 report on risk and vulnerable report in village level	0	41		Assessment report	There are no social, accessibility and disaster barriers during the process
Output 1.1.2. Action research of the impact of climate change on irrigation infrastructures, irrigation management system and agriculture practices are conducted.	41 reports on Participatory Action Research in village level	0	21	20	Activity report and documentation	There are no social, accessibility and disaster barriers during the process
Output 1.2.1. Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped.	41 report in village level,	0	10	31		There are no social, accessibility and disaster barriers during the process -
	2 report in sub district and district,	0		2		
	1 report in province level			1		
Output 1.2.2. Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.	41 report in village level	0	41		Activity report and documentation	There are no social, accessibility and disaster barriers during the process

Outcome/output	Indicator	Base line	Target		Sources of Verification	Risk and Assumption
			Y1	Y2		
Output 1.3.1. Climate related data management systems are developed in coordination with other key stakeholder	A platform on area data management developed and managed by key stakeholders	0		1	Activity report and documentation	Good coordination occurs among key stakeholders
Output 1.3.2. Project best practices and lesson learned are documented, published and disseminated.	All media (Village Bulletin, documentary movie, assessment report) published and disseminated	0	30%	70%	Activity report documentation	-
Component 2: Government Capacity **Objective: Strengthening the adaptive capacity of village, sub-district and district government in targeted area in South Sumatera to reduce risks associated with climate-induced socio-economic and environmental losses.**						
Outcome 2.1.Developed strategy of climate change adaptation and adopted into a regular government planning cycle	41 villages in the Project area adopt CC strategy in their yearly and midterm planning; District and province govt. adopt CC strategy in yearly planning and mid-term planning	0	10	31	Content of government regular planning	Good governance occurs in local government cycle
Outcome 2.2. Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses.	100 government staff from related agency and village government involved in the capacity building process.	0	30	70	Pre and post questionnaire	Good governance occurs in local government cycle
Output 2.1.1. Sub-district and village level of spatial map and governance system are developed.	41 spatial planning document in village level include spatial map in each village	0	10	31	Mapping process review Village policy draft	There are no social, accessibility and disaster barriers during the process Capacity and ability of village apparatus
Output 2.1.2. Landscape and sub-district level of climate change adaptation strategy and action plan are developed.	2 documents of Adaptation Strategy in Sub District level	0		2	Sub district government involvement	There are no social, accessibility and disaster barriers during the process
Output 2.1.3. Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.	41 midterm planning in village level improved with disaster risk reduction, food security and sustainable agriculture, and water management aspect	0	10	31	Village planning document review	Capacity and ability of village apparatus
Component 3: Community Engagement **Objective: Strengthening the community awareness and participation in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in adaptation and climate risk reduction measures.**						
Outcome 3.1. Strengthened community awareness and participation in adaptation and climate risk reduction measures.	50% from 77.000 people in Project area involved in community awareness activities	0	20%	30%	Activity report: Number of community involved in activity	The reasons and drivers offered by the Project could be understood by the community

Outcome/output	Indicator	Base line	Target		Sources of Verification	Risk and Assumption
			Y1	Y2		
Outcome 3.2. Strengthened community adaptive capacity in climate risk reduction measures.	20% from 77.000 people in Project area reduced their risk from climate change impact	0	5%	15%	Activity report: Number of community involved in activity	The reasons and drivers offered by the Project could be understood by the community
Output 3.1.1. Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area.	Involvement of 41 village government, 2 sub districts and districts government, 4 private sectors in the forum	0		100%	Activity report: Stakeholders involvement in Project activates	There is no significant conflict between stakeholders
Output 3.1.2. Community participation in landscape and sub-district level of climate change adaptation strategy and action plan	5% people in Project area involved actively in formulating and planning process	0		5%	Activity report: community involvement action plan development process	Good relationship between government and community
Output 3.2.1. Village regulation on sustainable-use of natural resources and climate change adaptation are developed.	41 village regulation/policy developed	0	10	31	Regulation/policy draft review	Capacity and ability of village apparatus
Output 3.2.2. Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market.	41 farmer organization in 41 village improved related to good and adaptive agriculture practices, access to finance and sustainable market	0	10	31	Activity report: community involvement action plan development process	The reasons and drivers offered by the Project could be understood by the community and farmer
Output 3.2.3. Irrigation infrastructures are revitalized through community-based cash for work mechanism.	50% of damaged facilities improved by the Project		10%	40%	Productive area influenced by revitalization process	Accuracy in choosing a revitalized area
Output 3.2.4. Community-based and integrated irrigation management systems are developed	41 Community-Based Standard Operating Procedure on integrated irrigation system established in village level		10	31	Activity report: community involvement action plan development process	
Component 4: Community Livelihood **Objective: Diversification and strengthening livelihoods of vulnerable communities in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in relation to climate change impacts, including variability.**						
Outcome 4.1. Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.	50% of vulnerable communities improved their livelihood in relation to climate change impacts		50%		Household economic assessment	It may take longer to see the results of the program
Outcome 4.2. Diversified and enhanced livelihoods of vulnerable communities.	5 new type of livelihoods source developed in the Project area		1	4	Activity report	Accuracy in choosing the business unit/model
Output 4.1.1. Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries.	41 piloting area in each village of Integrated and Adaptive Agriculture Practices developed		10	31	Activity report: productivity and benefit report	Depends on the ability of the farmer and the accuracy of the techniques chosen in the application of integrated agriculture

Outcome/output	Indicator	Base line	Target		Sources of Verification	Risk and Assumption
			Y1	Y2		
Output 4.1.2. Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial	10 ha of agrosilvofisheries system piloting area developed in potential area		10		Activity report: productivity and benefit report	Depends on the ability of the farmer and the accuracy of the techniques chosen
Output 4.2.1. Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group.	10 unit of small-scale post harvesting /processing business developed		2	8	Activity report: productivity and benefit report	Ability, motivation of community especially women and youth and access to markets is important to be consider
Output 4.2.2. Developed community or village-owned enterprises and cooperatives.	10 unit of community or village-owned enterprises and cooperatives well operated		5	5	Legality of institution establishment and statute	Depends on the village governance and the social conditions of the community
Component 5: Ecosystem Resilience **Objective: Increasing the resilience of lowland and coastal ecosystem in estuary area of Musi River and Sugihan River in response to climate change and variability-induced stress.**						
Outcome 5.1. The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.	The remaining ecosystems are mapped and formally agreed to be maintained by the community and village government		50%	50%	Activity report: participatory mapping report	Community willingness and awareness are sufficient to develop the conservation agenda
Outcome 5.2. Improved ecosystem condition affected by climate change.	1000 ha of degraded ecosystem improved or rehabilitated	0		1000	Activity report and documentation of planting area	The success of planting and rehabilitation is determined by the post-planting maintenance system
Output 5.1.1. Delineated and developed community-based conservation area.	75% potential conservation /protected area in delineated and developed	0	30%	45%	Mapping process and result review	Community willingness and awareness are sufficient to develop the conservation agenda
Output 5.1.2. Developed village regulation of community-based conservation area.	75 % Villages in the potential conservation area able to develop conservation regulation	0	30%	45%	Village regulation review	
Output 5.1.3. Developed conservation partnership schemes between corporation and village/communities	4 partnership models		1	3	MoU or collaboration action plan between community and corporation	Communities and companies are not involved in meaningful conflicts
Output 5.2.1. Restoration of degraded mangrove and coastal forest area are conducted.	500 ha of degraded mangrove and coastal forest restored/rehabilitated		100	400	Activity report and documentation: planting process and result	Community willingness and awareness are sufficient to develop the conservation agenda
Output 5.2.2. Restoration and plant enrichment of degraded upstream and watershed areas are conducted.	Restoration and plant enrichment of 500 ha degraded upstream and watershed areas		100	400	Activity report and documentation: planting process and result	
Component 6: Policy and Governance **Objective: Improving the policies and regulations related to irrigation management system and agricultural practices in South Sumatera that promote and enforce climate resilience.**						

Outcome/output	Indicator	Base line	Target		Sources of Verification	Risk and Assumption
			Y1	Y2		
Outcome 6.1. Improved policies and regulations and enforce climate resilience.	Policy and regulation in district and level improved related to climate resilience	0	100 %		Policy draft review	The condition of governance enables improvement process conducted
Outcome 6.2. Developed climate change monitoring system which enforces climate resilience.	Monitoring system established in sub district and district level	0		100%	progress report of system development	Monitoring system can meet people's needs
Output 6.1.1. Improved capacity of related institution to develop climate change adaptation policies, strategies and activities.	Staffs from related institution (Bappeda, Dinas PU, Pertanian) involved actively in the process of developing CC adaptation policy and strategy	0	100 %		Policy draft review	
Output 6.1.2. Developed cross-sectoral governance to optimize the irrigation infrastructures system.	Establishment of coordination platform/regulation in district level among related institution (Bappeda, Dinas PU, Dinas Pertanian)	0	100 %		Agreement on coordination system among institution	The condition of governance enables improvement process conducted
Output 6.2.1. Promoted and established climate change monitoring system at district and provincial level.	agreement between the provincial and district governments regarding climate change monitoring systems	0	100 %		progress report of system development	Monitoring system can meet development cycle needs
Output 6.2.2. Established community-based climate change adaptation learning system at sub-district and village level.	Agreement and *Standard Operating Procedure* between the provincial and district governments regarding climate change monitoring systems	0		100%	progress report of system development	The system can meet people's needs

F. ALIGNMENT WITH ADAPTATION FUND

The table below showing the alignment between Project Component/Objective and the Adaptation Fund Outcome:

Table 15: Alignment the Project Objectives with Adaptation Fund Outcomes (Objective Level)

Project Objective(s)	Project Objective(s) Indicator	Fund Outcome	Fund Outcome Indicator	Grant (USD)
1. Assessment and mapping of risk and vulnerabilities caused by climate-related hazards and threats in estuary area of Musi River and Sugihan River in sub-district of Muara Sugihan and Air	Two sub-districts have climate change adaptation plans based on the latest climate change vulnerability and risk data	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. No. and type of targeted institutions with increased capacity to minimize exposure to climate variability risk	$82,808
	Two sub-districts have detail analytic document on community capacity in CC adaptation in sub district levels a basis for increasing capacity for the community	Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors	4.1. Development sectors' services responsive to evolving needs from changing and variable climate	

Project Objective(s)	Project Objective(s) Indicator	Fund Outcome	Fund Outcome Indicator	Grant (USD)
Sugihan *(Baseline Data and Knowledge)*	50% of 77,000 and Government staff from agency at the regional level have increased awareness of the importance of risk reduction and climate change adaptation actions.	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	
2. Strengthening the adaptive capacity of village, sub-district and district government in targeted area in South Sumatera to reduce risks associated with climate-induced socio-economic and environmental losses *(Government Capacity)*	41 villages in the Project area adopt CC strategy in their yearly and midterm planning, District and province govt. adopt CC strategy in yearly planning and mid-term planning	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.2. Number of people with reduced risk to extreme weather events	$62,106
	100 government staff from related agency and village government involved in the capacity building process.	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. No. and type of targeted institutions with increased capacity to minimize exposure to climate variability risks	
3. Strengthening the community awareness and participation in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in adaptation and climate risk reduction measures *(Community Engagement)*	50% from 77.000 people in Project area aware of predicted adverse impacts of climate change, and of appropriate responses	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.1. Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses	$227,721
	20% from 77.000 people in Project area are change their behavior and reduce their risk from climate change impact	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.2. Modification in behavior of targeted population	
4. Diversification and strengthening livelihoods of vulnerable communities in lowland and coastal area in sub-district of Muara Sugihan and Air Sugihan in relation to climate change impacts, including variability *(Community Livelihood)*	50% of vulnerable communities improved their livelihood in relation to climate change impacts	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1.2. Type of income sources for households generated under climate change scenario	$186,317
	5 new type of livelihoods source developed in the Project area	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1.1.No. and type of adaptation assets (physical as well as knowledge) created in support of individual or community-livelihood strategies	
5. Increasing the resilience of lowland and coastal ecosystem in estuary area of Musi River and Sugihan River in response to climate change and variability-induced stress *(Ecosystem Resilience)*	The remaining ecosystems are mapped and formally agreed to be maintained by the community and village government	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	$144,913
	1000 ha of degraded ecosystem improved or rehabilitated	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress	

Project Objective(s)	Project Objective(s) Indicator	Fund Outcome	Fund Outcome Indicator	Grant (USD)
6. Improving the policies and regulations related to irrigation management system and agricultural practices in South Sumatera that promote and enforce climate resilience *(Policy and Governance)*	Policy and regulation in district and level improved related to climate resilience	Outcome 7: Improved policies and regulations that promote and enforce resilience measures	7. Climate change priorities are integrated into national development strategy	$124,211
	Monitoring system established in sub district and district level	Outcome 7: Improved policies and regulations that promote and enforce resilience measures	7. Climate change priorities are integrated into national development strategy	

Table 16: Alignment the Project Outcomes with Adaptation Fund Output (Outcome Level)

Project Outcome(s)	Project Outcome(s) Indicator	Fund Output	Fund Output Indicator	Grant (USD)
1.1. Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped	2 detail report document on CC risk and vulnerability in sub-district level	Output 2.2: Targeted population groups covered by adequate risk reduction systems	2.2.1. Percentage of population covered by adequate risk-reduction systems	$20,000
1.2. The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed	2 detail analytic document on community capacity in CC adaptation in sub district level	Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type)	$30,000
1.3. Climate-related data are well managed and socialized to the wider community	50% of 77,000 residents received information on assessment results; Government staff from related agency at the regional level (district and province) using the data for their assignment	Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type)	$32,808
2.1. Developed strategy of climate change adaptation and adopted into a regular government planning cycle	41 villages in the Project area adopt CC strategy in their yearly and midterm planning District and province govt. adopt CC strategy in yearly planning and mid-term planning	Output 2.2: Targeted population groups covered by adequate risk reduction systems	2.2.1. Percentage of population covered by adequate risk-reduction systems	$25,106
2.2. Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses	100 government staff from related agency and village government involved in the capacity building process.	Output 2.1: Strengthened capacity of national and regional centers and networks to respond rapidly to extreme weather events	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events	$37,000

Project Outcome(s)	Project Outcome(s) Indicator	Fund Output	Fund Output Indicator	Grant (USD)
3.1. Strengthened community awareness and participation in adaptation and climate risk reduction measures	50% from 77.000 people in Project area involved in community awareness activities	Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. and type of risk reduction actions or strategies introduced at local level	$52,000
3.2. Strengthened community adaptive capacity in climate risk reduction measures.	20% from 77.000 people in Project area reduced their risk from climate change impact	Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1.1 No. and type of risk reduction actions or strategies introduced at local level	$175,721
4.1. Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability	50% of vulnerable communities improved their livelihood in relation to climate change impacts	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1.No. and type of adaptation assets (physical as well as knowledge) created in support of individual or community-livelihood strategies	$96,317
4.2. Diversified and enhanced livelihoods of vulnerable communities	5 new type of livelihoods source developed in the Project area	Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.2. Type of income sources for households generated under climate change scenario	$90,000
5.1. The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity	The remaining ecosystems are mapped and formally agreed to be maintained by the community and village government	Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)	$74,913
5.2. Improved ecosystem condition affected by climate change	1000 ha of degraded ecosystem improved or rehabilitated	Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability	5.1. No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)	$70,000
6.1. Improved policies and regulations and enforce climate resilience	Policy and regulation in district and level improved related to climate resilience	Output 7: Improved integration of climate-resilience strategies into country development plans	7.1. No., type, and sector of policies introduced or adjusted to address climate change risks	$84,211
6.2. Developed climate change monitoring system which enforces climate resilience	Monitoring system established in sub district and district level	Output 7: Improved integration of climate-resilience strategies into country development plans	7.2. No. or targeted development strategies with incorporated climate change priorities enforced	$40,000

G. PROJECT BUDGET

Table 17: Project Budget

Description Item			Cost
Total Project Cost			**$915,000**
Component 1: Baseline Data and Knowledge			**$82,808**
Outcome	**1.1**	**Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.**	**$20,000**
Output	**1.1.1**	**Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed.**	**$10,000**
Activity	1.1.1.1	Participatory socio-economic assessment (5 village in Muara Sugihan, 5 villages in Air Sugihan)	$7,500
	1.1.1.2.	Environmental aspects assessment (5 village in Muara Sugihan, 5 villages in Air Sugihan)	$2,500
Output	**1.1.2**	**Action research of the impact of climate change on irrigation infrastructures, irrigation management system and agriculture practices are conducted.**	**$10,000**
Activity	1.1.2.1	action research of CC impact on irrigation infrastructure management	$7,500
	1.1.2.2.	Action research of CC impact on agriculture practice	$2,500
Outcome	**1.2**	**The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed**	**$30,000**
Output	**1.2.1**	**Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped.**	**$16,000**
Activity	1.2.1.1.	Policy and regulation assessment in village and sub district level (10 village, 2 sub district)	$5,000
	1.2.1.2.	Policy and regulation assessment in district level (2 district: Banyuasin and Ogan Komering Ilir)	$6,000
	1.2.1.3.	Policy and regulation assessment in province level	$5,000
Output	**1.2.2**	**Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.**	**$14,000**
Activity	1.2.2.1.	Assessment of local/indigenous knowledge on estuary and tidal dynamic	$3,500
	1.2.2.2.	Assessment of local/indigenous knowledge on climatic and agriculture aspect	$3,500
	1.2.2.3.	Assessment of local/indigenous knowledge on land and biodiversity aspect	$3,500
	1.2.2.4.	Assessment of community-based early warning system	$3,500
Outcome	**1.3.**	**Climate-related data are well managed and socialized to the wider community**	**$32,808**
Output	**1.3.1**	**Climate related data management system are developed in coordination with other key stakeholder**	**$5,808**
Activity	1.3.1.1.	Data compilation and analysis (expert consultation)	$2,808
	1.3.1.2	Discussion and coordination with key stakeholders	$3,000
Output	**1.3.2.**	**Project best practices and lesson learned are documented, published and disseminated**	**$27,000**
Activity	1.3.2.1	Making and distribution of village bulletin	$3,000
	1.3.2.2.	Producing and dissemination of documentary movie	$12,000
	1.3.2.3.	Workshop on district level	$5,000
	1.3.2.4	Workshop on province and national level	$7,000
Component 2: Government Capacity			**$62,106**
Outcome	**2.1**	**Developed strategy of climate change adaptation and adopted into a regular government planning cycle.**	**$25,106**
Output	**2.1.1**	**Sub-district and village level of spatial map and governance system are developed**	**$4,500**
Activity	2.1.1.1.	Participatory village mapping	$3,000

Description Item			Cost
	2.1.1.2.	Legal aspect coordination on mapping result	$1,500
Output	**2.1.2**	**Landscape and sub-district level of climate change adaptation strategy and action plan are developed.**	**$14,106**
Activity	2.1.2.1.	Training on climate change in village level	$9,606
	2.1.2.2	FGDs in village level to explore ideas	$1,000
	2.1.2.3	Document making on adaptation strategy in village level	$2,000
	2.1.2.4	Facilitating village government to improve their village policy related to CC adaptation strategy	$1,500
Output	**2.1.3**	**Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.**	**$6,500**
Activity	2.1.3.1	Capacity building on village government staff on sustainable lowland ecosystem management	$3,500
	2.1.3.2	Participatory campaign led by village government on sustainable lowland ecosystem management	$2,000
	2.1.3.3	Facilitating village government and community to improve their mid-term planning document (RPJMDes) related to lowland ecosystem management	$1,000
Outcome	**2.2**	**Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses**	**$37,000**
Output	**2.2.1**	**Improved capacity of village and sub-district apparatus in the formulation of policy and regulation related to climate change adaptation**	**$18,500**
Activity	2.2.1.1	Training on village and sub district apparatus about climate change policy and program in Indonesia	$9,500
	2.2.1.2	Training on improving policy and regulation in village level and sub district related to climate change adaptation	$9,000
Output	**2.2.2**	**Improved capacity of village and sub-district apparatus in the budget allocation/resource management and mobilization related to climate change adaptation.**	**$18,500**
Activity	2.2.2.1	Training on budgeting/budget planning policy in village level for village and sub district apparatus	$9,500
	2.2.2.2	Facilitating village government to improve their development budget plan related to climate change adaptation in coordination with sub district policy	$9,000
Component 3:Community Engagement			**$227,721**
Outcome	**3.1**	**Strengthened community awareness and participation in adaptation and climate risk reduction measures.**	**$52,000**
Output	**3.1.1**	**Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area**	**$30,000**
Activity	3.1.1.1	Organizing seminars on Climate Change Vulnerability and Adaptation	$6,000
	3.1.1.2	Increase the capacity of stakeholders related to climate change adaptation through serial discussions	$4,000
	3.1.1.3	Workshop Formation and Compilation of Multi-stakeholder Forum Work Plans	$12,000
	3.1.1.4	Facilitation of multi stakeholder forums	$8,000
Output	**3.1.2**	**Community participation in landscape and sub-district level of climate change adaptation strategy and action plan (see 2.1.2.).**	**$22,000**
Activity	3.1.2.1	Conduct a KAP survey of the community regarding climate change	$10,000
	3.1.2.2	Conducting adaptation change conservation training for the community	$10,000
Outcome	**3.2**	**Strengthened community adaptive capacity in climate risk reduction measures.**	**$175,721**
Output	**3.2.1**	**Village regulation on sustainable-use of natural resources and climate change adaptation are developed**	**$23,000**
Activity	3.2.1.1	Conducting village meeting on sustainable-use of natural resources and climate change adaptation are developed	$18,000
	3.2.1.2	Facilitate the process of preparing village regulations	$5,000
Output	**3.2.2**	**Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market**	**$23,000**

Description Item			Cost
Activity	3.2.2.1	Conducting farmer institutional training for management, good and adaptive agriculture practices, access to finance and sustainable market	$18,000
	3.2.2.2	Facilitating the process of accessing financing and sustainable markets	$5,000
Output	**3.2.3**	**Irrigation infrastructures are revitalized through community-based cash for work mechanism.**	**$117,721**
Activity	3.2.3.1	Collect data on irrigation infrastructure conditions	$7,500
`	3.2.3.2	Prepare a revitalization plan for irrigation infrastructure with a community-based cash for work mechanism	$7,500
	3.2.3.3	Implementation of revitalization of irrigation infrastructure with a community-based cash for work mechanism	$102,721
Output	**3.2.4**	**Community-based and integrated irrigation management systems are developed.**	**$12,000**
Activity	3.2.4.1	Conducting workshop of community-based and integrated irrigation management systems	$9,000
	3.2.4.2	Signing of a community-based and integrated irrigation management systems agreement	$1,000
	3.2.4.3	Facilitating the implementation of community-based and integrated irrigation management systems	$2,000
Component 4: Community Livelihood			**$186,317**
Outcome	**4.1**	**Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.**	**$96,317**
Output	**4.1.1**	**Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries**	**$48,317**
Activity	4.1.1.1	Training on integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries	$18,000
	4.1.1.2	Demonstration plot of integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries	$30,317
Output	**4.1.2**	**Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.**	**$48,000**
Activity	4.1.2.1	Training to improve skills in integrated and adaptive agriculture practices that are integrating the crop, livestock and fisheries	$18,000
	4.1.2.2	Establishment of an integrated and adaptive agriculture demonstration scheme that integrates the crop, livestock and fisheries	$30,000
Outcome	**4.2**	**Diversified and enhanced livelihoods of vulnerable communities**	**$90,000**
Output	**4.2.1**	**Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group;**	**$65,000**
Activity	4.2.1.1	Collecting data about potential products that can be done post-harvest business development	$5,000
	4.2.1.2	Conduct post-harvest product business training for women and youth groups	$40,000
	4.2.1.3	Assistance to post-harvest product businesses for women and youth groups	$20,000
Output	**4.2.2**	**Developed community or village-owned enterprises and cooperatives.**	**$25,000**
Activity	4.2.2.1	Training of business institutions, cooperatives and village-owned enterprises	$15,000
	4.2.2.2	Assistance for business institutions, cooperatives, and village-owned enterprises	$10,000
Component 5: Ecosystem Resilience			**$144,913**
Outcome	**5.1.**	**The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.**	**$74,913**
Output	**5.1.1**	**Delineated and developed community-based conservation area**	**$27,413**
Activity	5.1.1.1	Community workshop on community-based conservation area	$8,413
	5.1.1.2	Participatory area mapping	$10,000
	5.1.1.3	Community-based conservation area establishment	$9,000
Output	**5.2.1**	**Developed village regulation of community-based conservation area**	**$27,500**
Activity	5.2.1.1	Training on community based conservation management	$11,000
	5.2.1.2	Community by-laws identification	$3,500
	5.2.1.3	Village workshop for CBCA regulation drafting	$11,000
	5.2.1,4	Legalization and dissemination	$2,000
Output	**5.2.2**	**Developed conservation partnership schemes between corporation and village/communities**	**$20,000**

Description Item			Cost
Activity	5.2.2.1	Arranging partnership schemes planning	$3,000
	5.2.2.2	Workshop on conservation partnership	$15,000
	5.2.2.3	MoU on conservation partnership schemes between corporation and village/communities	$2,000
Outcome	**5.2.**	**Improved ecosystem condition affected by climate change.**	**$70,000**
Output	**5.2.1**	**Restoration of degraded mangrove and coastal forest area are conducted**	**$35,000**
Activity	5.2.1.1	Participatory Field Observation Study: Vegetation, substrate, hydrology	$3,000
	5.2.1.2	Participatory Land Status and Allocation Study	$3,000
	5.2.1.3	Participatory Land suitability and Feasibility study	$3,000
	5.2.1.4	Community Capacity building on Forest Rehabilitation	$12,000
	5.2.1.5	Forest Rehabilitation Plan (stakeholders mapping, technical design, infrastructure preparation, budget, etc.)	$2,000
	5.2.1.6	Planting and maintenance	$12,000
Output	**5.2.2**	**Restoration and plant enrichment of degraded upstream and watershed area are conducted**	**$35,000**
Activity	5.2.2.1	Participatory Field Observation Study: Vegetation, substrate, hydrology	$3,000
	5.2.2.2	Participatory Land Status and Allocation Study	$3,000
	5.2.2.3	Participatory Land suitability and Feasibility study	$3,000
	5.2.2.4	Community Capacity building on Forest Rehabilitation	$12,000
	5.2.2.5	Forest Rehabilitation Plan (stakeholders mapping, technical design, infrastructure preparation, budget, etc.)	$2,000
	5.2.2.6	Planting and maintenance	$12,000
Component 6: Policy and Governance			**$124,211**
Outcome	**6.1**	**Improved policies and regulations and enforce climate resilience**	**$84,211**
Output	**6.1.1**	**Improved capacity of related institution to develop climate change adaptation policies, strategies and activities**	**$54,211**
Activity	6.1.1.1	Institution mapping	$17,211
	6.1.1.2	Training on climate change mainstreaming and on multiple technical aspects linked to the response to climate change	$18,500
	6.1.1.3	Training workshops on mainstreaming climate change in development planning and budgeting	$18,500
Output	**6.1.2**	**Developed cross-sectoral governance to optimize the irrigation infrastructures system**	**$30,000**
Activity	6.1.2.1	Desk study :(identification of Role of governance systems in promoting efficient and equitable water resources management; type of legal instruments, policies and institutions that are required to encourage stakeholder participation in decision making)	$17,500
	6.1.2.2	Workshop on cross sectoral governance to optimize the irrigation infrastructures system	$7,500
	6.1.2.3	Establishing a cross sectoral irrigation optimization forum	$5,000
Outcome	**6.2**	**Developed climate change monitoring system which enforces climate resilience**	**$40,000**
Output	**6.2.1**	**Promoted and established climate change monitoring system at district and provincial level**	**$20,000**
Activity	6.2.1.1	Workshop for climate change monitoring system of district and provincial level	$10,000
	6.2.1.2	Developed forum for climate change monitoring system for district and provincial level	$10,000
Output	**6.2.2**	**Established community-based climate change adaptation learning system at sub-district and village level.**	**$20,000**
Activity	6.2.2.1	Serial Workshop for climate change adaptation learning in sub-district and village level	$10,000
	6.2.2.2	Publish a Book of experiential learning	$10,000
Project Execution Cost			**$86,925**
	7.1	Team Leader	$20,000
	7.2	Knowledge Management Manager	$8,000
	7.3	Database Officer	$5,300
	7.4	Finance and Administration Manager	$8,000

Description Item			Cost
	7.5	Landscape Manager	$18,000
	7.6	Sub-district Coordinator	$18,000
	7.7	Integrated Agriculture Specialist	$750
	7.8	Fishery Specialist	$750
	7.9	GESI Specialist	$750
	7.10	Office Rent	$1,000
	7.11	Stationery	$500
	7.12	Communication	$500
	7.13	Electricity	$500
	7.14	Audit Fee	$4,875
Project Cycle Management Fee charged by the Implementing Entity			**$85,000**
	8.1	Project identification and Development	$3,500
	8.2	Project Implementation and Supervision	$58,500
	8.3	Evaluation	$23,000
Amount of Financing Requested (USD)			**$1,000,000**

H. DISBURSEMENT SCHEDULE

1. Disbursement Milestones

Table 18: Disbursement Milestones

Upon signature of Agreement	Upon signature of Agreement	One Year after Project Start	Total
Scheduled Date	1 January 20X1	1 January 20X2	
Project Fund	$388,875	$526,125	$915,000
Implementing Entity Fees	$36,125	$48,875	$85,000
Total	**$425,000**	**$ 575,000**	**$1,000,000**

2. Time-bound Project Activities

The Project is planned to be implemented for 2 calendar years (24 months), with details of the Implementation schedule of each quarter (8 quarters) as follows:

Table 19: Time-bound Project Activities

Description Item			Quarter							
			1	2	3	4	5	6	7	8
COMPONENT 1: BASELINE DATA AND KNOWLEDGE										
Outcome	**1.1.**	**Risk and vulnerabilities caused by climate-related hazards and threats are assessed and mapped.**								
Output	**1.1.1.**	**Risk and vulnerabilities caused by climate change, including socio-economic and environmental aspects of vulnerability are participatory assessed.**								
Activity	1.1.1.1.	Participatory socio-economic assessment (5 village in Muara Sugihan, 5 villages in Air Sugihan)								
	1.1.1.2.	Environmental aspects assessment (5 village in Muara Sugihan, 5 villages in Air Sugihan)								

Description Item			Quarter							
			1	2	3	4	5	6	7	8
Output	**1.1.2.**	**Action research of the impact of climate change on irrigation infrastructures, irrigation management system and agriculture practices are conducted.**								
Activity	1.1.2.1.	Action research of climate change impact on irrigation infrastructure management								
	1.1.2.2.	Action research of climate change impact on agriculture practice								
Outcome	**1.2.**	**The levels of adaptive capacity of climate change, including the availability of early warning systems are assessed**								
Output	**1.2.1.**	**Policy and regulation at village, sub-district, district, and province level related to climate change adaption are assessed and mapped.**								
Activity	1.2.1.1.	Policy and regulation assessment in village and sub district level (10 village, 2 sub district)								
	1.2.1.2.	Policy and regulation assessment in district level (2 district: Banyuasin and Ogan Komering Ilir)								
	1.2.1.3.	Policy and regulation assessment in province level								
Output	**1.2.2.**	**Climate-related of local/indigenous knowledge and community-based monitoring system of risk and vulnerabilities caused by climate-change are assessed.**								
Activity	1.2.2.1.	Assessment of local/indigenous knowledge on estuary and tidal dynamic								
	1.2.2.2.	Assessment of local/indigenous knowledge on climatic and agriculture aspect								
	1.2.2.3.	Assessment of local/indigenous knowledge on land and biodiversity aspect								
	1.2.2.4.	Assessment of community-based early warning system								
Outcome	**1.3.**	**Climate-related data are well managed and socialized to the wider community**								
Output	**1.3.1.**	**Climate related data management system are developed in coordination with other key stakeholder**								
Activity	1.3.1.1.	Data compilation and analysis (expert consultation)								
	1.3.1.2.	Discussion and coordination with key stakeholders								
Output	**1.3.2.**	**Project best practices and lesson learned are documented, published and disseminated**								
Activity	1.3.2.1.	Making and distribution of village bulletin								
	1.3.2.2.	Producing and dissemination of documentary movie								
	1.3.2.3.	Workshop on district level								
	1.3.2.4.	Workshop on province and national level								
COMPONENT 2: GOVERNMENT CAPACITY										
Outcome	**2.1.**	**Developed strategy of climate change adaptation and adopted into a regular government planning cycle.**								
Output	**2.1.1.**	**Sub-district and village level of spatial map and governance system are developed**								
Activity	2.1.1.1.	Participatory village mapping								
	2.1.1.2.	Legal aspect coordination on mapping result								
Output	**2.1.2.**	**Landscape and sub-district level of climate change adaptation strategy and action plan are developed.**								
Activity	2.1.2.1.	Training on climate change in village level								
	2.1.2.2.	FGDs in village level to explore ideas								
	2.1.2.3.	Document making on adaptation strategy in village level								
	2.1.2.4.	Facilitating village government to improve their village policy related to CC adaptation strategy								
Output	**2.1.3.**	**Increased quality of village planning, which consider the aspects of disaster risk reduction, food security and sustainable agriculture, and water management.**								
Activity	2.1.3.1.	Capacity building on village government staff on sustainable lowland ecosystem management								
	2.1.3.2.	Participatory campaign led by village government on sustainable lowland ecosystem management								

Description Item			Quarter							
			1	2	3	4	5	6	7	8
	2.1.3.3.	Facilitating village government and community to improve their mid-term planning document (RPJMDes) related to lowland ecosystem management								
Outcome	**2.2.**	**Strengthened capacity of village, sub-district and district government apparatus to reduce risks associated with climate-induced socio-economic and environmental losses**								
Output	**2.2.1.**	**Improved capacity of village and sub-district apparatus in the formulation of policy and regulation related to climate change adaptation**								
Activity	2.2.1.1.	Training on village and sub district apparatus about climate change policy and program in Indonesia								
	2.2.1.2.	Training on improving policy and regulation in village level and sub district related to climate change adaptation								
Output	**2.2.2.**	**Improved capacity of village and sub-district apparatus in the budget allocation/resource management and mobilization related to climate change adaptation.**								
Activity	2.2.2.1.	Training on budgeting/budget planning policy in village level for village and sub district apparatus								
	2.2.2.2.	Facilitating village government to improve their development budget plan related to climate change adaptation in coordination with sub district policy								
COMPONENT 3: COMMUNITY ENGAGEMENT										
Outcome	**3. 1.**	**Strengthened community awareness and participation in adaptation and climate risk reduction measures.**								
Output	**3.1.1.**	**Developed the Climate Change Adaption Multi-stakeholder Forum at landscape level, covering 2 sub-districts of Project targeted area**								
Activity	3.1.1.1.	Organizing seminars on Climate Change Vulnerability and Adaptation								
	3.1.1.2.	Increase the capacity of stakeholders related to climate change adaptation through serial discussions								
	3.1.1.3.	Workshop Formation and Compilation of Multi-stakeholder Forum Work Plans								
	3.1.1.4.	Facilitation of multi stakeholder forums								
Output	**3.1.2.**	**Community participation in landscape and sub-district level of climate change adaptation strategy and action plan (see 2.1.2.).**								
Activity	3.1.2.1.	Conduct a KAP survey of the community regarding climate change								
	3.1.2.2.	Conducting adaptation change conservation training for the community								
Outcome	**3.2.**	**Strengthened community adaptive capacity in climate risk reduction measures.**								
Output	**3.2.1.**	**Village regulation on sustainable-use of natural resources and climate change adaptation are developed**								
Activity	3.2.1.1.	Conducting village meeting on sustainable-use of natural resources and climate change adaptation								
	3.2.1.2.	Facilitate the process of preparing village regulations								
Output	**3.2.2.**	**Increased capacity of farmer institution, in the aspect of management, good and adaptive agriculture practices, access to finance and sustainable market**								
Activity	3.2.2.1.	Conducting farmer institutional training for management, good and adaptive agriculture practices, access to finance and sustainable market								
	3.2.2.2.	Facilitating the process of accessing financing and sustainable markets								
Output	**3.2.3.**	**Irrigation infrastructures are revitalized through community-based cash for work mechanism.**								
Activity	3.2.3.1.	Collect data on irrigation infrastructure conditions								
	3.2.3.2.	Prepare a revitalization plan for irrigation infrastructure with a community-based cash for work mechanism								
	3.2.3.3.	Implementation of revitalization of irrigation infrastructure with a community-based cash for work mechanism								
Output	**3.2.4.**	**Community-based and integrated irrigation management systems are developed.**								
Activity	3.2.4.1.	Conducting workshop of community-based and integrated irrigation management systems								

Description Item			Quarter							
			1	2	3	4	5	6	7	8
	3.2.4.2.	Signing of a community-based and integrated irrigation management systems agreement								
	3.2.4.3.	Facilitating the implementation of community-based and integrated irrigation management systems								
COMPONENT 4: COMMUNITY LIVELIHOOD										
Outcome	**4.1.**	**Strengthened livelihoods of vulnerable communities in relation to climate change impacts, including variability.**								
Output	**4.1.1.**	**Developed integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries**								
Activity	4.1.1.1.	Training integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries								
	4.1.1.2.	Establishment of an integrated and adaptive agriculture practices which integrating the crop, livestock and fisheries								
Output	**4.1.2.**	**Developed agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.**								
Activity	4.1.2.1.	Training to improve skills in agrosilvofisheries system in mangrove area and agroforestry system in terrestrial.								
	4.1.2.2.	Establishment of an agrosilvofisheries system in mangrove area and agroforestry system in terrestrial								
Outcome	**4.2.**	**Diversified and enhanced livelihoods of vulnerable communities**								
Output	**4.2.1.**	**Developed new models of community livelihood of post harvesting/processing stages, particularly for women and youth group**								
Activity	4.2.1.1.	Collecting data about potential products that can be done post-harvest business development								
	4.2.1.2.	Conduct post-harvest product business training for women and youth groups								
	4.2.1.3.	Assistance to post-harvest product businesses for women and youth groups								
Output	**4.2.2.**	**Companies and cooperatives belonging to the community or village developed**								
Activity	4.2.2.1.	Training of business institutions, cooperatives and village-owned enterprises								
	4.2.2.2.	Assistance for business institutions, cooperatives, and village-owned enterprises								
COMPONENT 5: ECOSYSTEM RESILIENCE										
Outcome	**5.1.**	**The essential areas are conserved in order to maintain the ecosystem services and ecosystem carrying capacity.**								
Output	**5.1.1.**	**Delineated and developed community-based conservation area**								
Activity	5.1.1.1.	Community workshop on community-based conservation area								
	5.1.1.2.	Participatory area mapping								
	5.1.1.3.	Community-based conservation area establishment								
Output	**5.1.2.**	**Developed village regulation of community-based conservation area**								
Activity	5.1.2.1.	Training on community based conservation management								
	5.1.2.2.	Identify rules and norms in the community in managing natural resources								
	5.1.2.3.	Village workshop for CBCA regulation drafting								
	5.1.2.4.	Legalization and dissemination								
Output	**5.1.3.**	**Developed conservation partnership schemes between corporation and village/communities**								
Activity	5.1.3.1.	Arranging partnership schemes planning								
	5.1.3.2.	Workshop on conservation partnership								
	5.1.3.3.	MoU on conservation partnership schemes between corporation and village/communities								
Outcome	**5.2.**	**Improved ecosystem condition affected by climate change.**								
Output	**5.2.1.**	**Restoration of degraded mangrove and coastal forest area are conducted**								

Description Item			Quarter							
			1	2	3	4	5	6	7	8
Activity	5.2.1.1.	Participatory Field Observation Study: Vegetation, substrate, hydrology								
	5.2.1.2.	Participatory Land Status and Allocation Study								
	5.2.1.3.	Participatory Land suitability and Feasibility study								
	5.2.1.4.	Community Capacity building on Forest Rehabilitation								
	5.2.1.5.	Forest Rehabilitation Plan (stakeholders mapping, technical design, infrastructure preparation, budget, etc.)								
	5.2.1.6.	Planting and maintenance								
Output	**5.2.2.**	**Restoration and plant enrichment of degraded upstream and watershed area are conducted**								
Activity	5.2.2.1.	Participatory Field Observation Study: Vegetation, substrate, hydrology								
	5.2.2.2.	Participatory Land Status and Allocation Study								
	5.2.2.3.	Participatory Land suitability and Feasibility study								
	5.2.2.4.	Community Capacity building on Forest Rehabilitation								
	5.2.2.5.	Forest Rehabilitation Plan (stakeholders mapping, technical design, infrastructure preparation, budget, etc.)								
	5.2.2.6.	Planting and maintenance								
COMPONENT 6: POLICY AND GOVERNANCE										
Outcome	**6.1.**	**Improved policies and regulations and enforce climate resilience**								
Output	**6.1.1.**	**Improved capacity of related institution to develop climate change adaptation policies, strategies and activities**								
Activity	6.1.1.1.	Institution mapping								
	6.1.1.2.	Training on climate change mainstreaming and on multiple technical aspects linked to the response to climate change								
	6.1.1.3.	Training workshops on mainstreaming climate change in development planning and budgeting								
Output	**6.1.2.**	**Developed cross-sectoral governance to optimize the irrigation infrastructures system**								
Activity	6.1.2.1.	Desk study :(identification of Role of governance systems in promoting efficient and equitable water resources management; type of legal instruments, policies and institutions that are required to encourage stakeholder participation in decision making)								
	6.1.2.2.	Workshop on cross sectoral governance to optimize the irrigation infrastructures system								
	6.1.2.3.	Establishing a cross sectoral irrigation optimization forum								
Outcome	**6.2.**	**Developed climate change monitoring system which enforces climate resilience**								
Output	**6.2.1.**	**Promoted and established climate change monitoring system at district and provincial level**								
Activity	6.2.1.1.	Workshop for climate change monitoring system at district and provincial level								
	6.2.1.2.	Developed forum for climate change monitoring system for district and provincial level								
Output	**6.2.2.**	**Established community-based climate change adaptation learning system at sub-district and village level.**								
Activity	6.2.2.1.	Serial Workshop for climate change adaptation learning in sub-district and village level								
	6.2.2.2.	Publish a Book of experiential learning								

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

A. RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT

During the concept of the Project, the proponent organizations conduct several consultations with local officials with details as follows:

Table 20: Record of Endorsement on behalf of the Government

Name and Position	Date
Yanuar Suhartono, S.T Head of Sub Division of Development Funding in Agency for Regional Development Planning of South Sumatera Province	December 15, 2018
H. Dwiva Putra, SP. MSE. Head of Division of Economy and Development Funding in Agency for Regional Development Planning of South Sumatera Province	January 9, 2019
Regina Ariyanti, S.T Head of Division of Infrastructure and Regional Development in Agency for Regional Development Planning of South Sumatera Province	January 9, 2019
Iwan Adi Ratmoko, S.Hut. MSc. Agency for Regional Development Planning of Banyuasin Regency	January 14, 2019
Dr. Ekowati Retnaningsih, SKM. M.Kes. Head of Agency for Regional Development Planning of South Sumatera Province	January 18, 2019

Endorsement and support letter for proponent organization in order to submit proposal to Adaptation Fund obtained from **Dr. Ekowati Retnaningsih, SKM. M.Kes.; Head of Agency for Regional Development Planning of South Sumatera Province**, with letter No 050/0083/Bappeda/2019 dated January 17, 2019 *(Attached).*

PEMERINTAH PROVINSI SUMATERA SELATAN
BADAN PERENCANAAN PEMBANGUNAN DAERAH
Jalan Kapten A. Rivai No. 23 Palembang Telp. (0711) 356018 - 321181 Fax. (0711) 314586 - 356118
Website : www.bappeda.sumselprov.go.id E-mail : info@bappeda.sumselprov.go.id

Palembang, January 17th, 2019

To

Number : 050 /0083/Bappeda/2019
Attachment : -
Subject : Endorsement for Submit Funding Proposals to Adaptation Funds for Climate Adaptation Programme

Yth. The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat

One of the targets of South Sumatra development planning (RPJMD 2018-2023) is to improve the adaptation of people's agriculture and food sovereignty (advanced people's agriculture and food sovereignty), which is have impact to reduce poverty index. Air Sugihan and Sungai Sugihan sub-districts are areas that are vulnerable to climate change and have 41 villages prioritized for poverty reducation.

Accordingly, we provide recommendations to the Penabulu Foundation to submit funding proposals to Adaptation Funds in the ***Reducing vulnerability and increasing the adaptation capacity of community through improvement of irrigation management system and sustainable agricultural practices in responding to climate change impacts in lowland and estuary in sub-district of Muara Sugihan and Air Sugihan, South Sumatera Programme.***
Thank you for your attention.

Sincerely,

Dr. Ekowati Retnaningsih, SKM., M.Kes.
Head of Development Planning Agency
of South Sumatera Province

B. IMPLEMENTING ENTITY CERTIFICATION

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

Date:	Tel. and email: +62-21-7279 9566; Monica.Tanuhandaru@kemitraan.or.id
Project Contact Person: **Dewi Rizki**	
Tel. And Email: +62-21-7279 9566; Dewi.Rizki@kemitraan.or.id	