AFoCO Project Document

Project code	AFoCO/023/2021

Project Profile	
Project title	**Innovative Solutions for Climate Change and Biodiversity Landscape Strategy to Support SDGs in Indonesia**
Project duration	Estimated start date: 1 July 2021 Estimated end date: 30 June 2024
Implementing Agency	Forest Research and Development Center (FRDC)
Participating countries	Indonesia
Project site	1. Tropical peatlands forest of Forest Area with Specific Purpose of Kepau Jaya, Forest Management Unit of Sorek, in Siak district, Riau province; 2. Mangrove ecosystem of Forest Management Unit Bali Selatan in Badung district, Bali province; 3. Karst and lowland ecosystem of Forest Management Unit of Bulusaraung, in Maros district, South Sulawesi province
Main objective	a) To establish baseline information by mapping the existing biophysical (spatial temporal), socio-economic condition (before and after the project), and potency of natural resources in the three study sites in the beginning of the project; b) To facilitate the preparation of business plans of the Forest Management Units (FMUs) at three study sites; c) To develop demonstration plots of at least 10 ha in each study site for carbon stock enhancement in FMUs or Forest Area with Specific Purpose (KHDTK) areas; d) To transfer techniques and raise awareness of project model establishment to relevant stakeholders through synthesis of knowledge and experiences, recommendations on policy practices, and dissemination of project outputs. *Goal:* To bring innovative solutions to sustainable management practice and enhance the capacities of Forest Management Units and local communities on contributing to Indonesia's emissions reduction targets and to support SDGs
Target Area	Primary Target Area: Priority Area 2 – Supporting research and development in climate change approaches

	Secondary Target Area Priority Area 1 – Initiating customized restoration and reforestation models		
Budget and source of finance	Total: US$ 800,000 - AFoCO: US$ 700,000 - National: US$ 100,000 - Others: US$ 0		
Proponent Profile			
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Notes to the Proponent

This project proposal is subject to the following conditions and criteria, otherwise, the proposal may not be given due consideration.

1. The proposal should be prepared based on the project concept note and further comments of the Secretariat.
2. The proposal should be developed in accordance with the AFoCO Project Manual.
3. The proponent should ensure the originality of the proposal and its activities.
4. The proponent should ensure that the proposal is not duplicating outputs and activities of other on-going or completed projects.
5. The proponent should ensure that budget estimates are based on prevailing market prices.
6. Under the Budget Item 'Management and Operation', the proponent should annually allocate funds for [the DSA (USD 35/day) and round-trip airfare of two participants for their participation in] the regular AFoCO training workshop "Annual Performance and Management Review" to be organized at the AFoCO Regional Education and Training Center.
7. The project budget shall also include Program Support Fee which is up to 12% of the basic budget (all budget components which are not a Program Support charge). Likewise, indirect costs shall not exceed 20% of the total project budget. Indirect costs generally refers to expenditures that are not directly contribute and support the achievement of a particular project output.
8. In accordance with the Article 12 in the Agreement on the Establishment of the AFoCO, the project proponent is highly encouraged to make efforts to provide in-kind or cash counterpart project fund.
9. As much as possible, the proposal should not exceed 50 pages inclusive of the detailed work plan and budget breakdown. The proposal should be printed on single-sided A4 paper and the formatting requirements of the proposal document include: "Arial" font type, font size 11, 1.15 line spacing, 2.54 cm on the top and bottom margins, and 1.9 cm on the right and left margins. The proposal should be prepared in a Microsoft Word® and PDF® copy, including tables, maps, pictures, and annexes.
10. The project proponent is encouraged to provide relevant references (if any) as annexure to the proposal for use during review and project appraisal.

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Summary

(The Summary section is a brief description of the project. It should be presented in narrative form with the information of the core problem to be addressed, goals, objectives and brief description of the interventions needed to resolve the problem.) (500-600 words or 1 page)

Indonesia has committed to reduce 29 % of its GHG emissions unconditionally and 41 % conditionally or with financial support from funding partners in 2030. Focusing on land-based sector would be a strategic solution in achieving GHG emission reduction outlined in the Nationally D etermined Contribution (NDC). According to the NDC, Forestry sector is going to be the largest contribution in reducing the emission up to 2030. As such, combining on wetland and dryland i ssues would be of the great intervention in this action. It has been targeted in the NDC that without foreign assistant (unconditionally measures) about 17% of the BAU emission from forestry sector or about 500 Mt of CO_2e emissions should be reduced (MoEF 2017).

Green Growth Policy Review reported that Indonesia is in the second highest deforestation rate in the world after Brazil. Total forest area declined by 7% in 2005-2015, due to illegal logging, land clearing for agriculture, mining, and timber plantation (OECD 2019). The conversion of forest and peatland reduces carbon stocks and increase GHG emission significantly. The GHG emission becoming worst in peat fire and decomposition. It is reported that GHG emission from Land use, land use change and forestry (LULUCF) in 2016 was 1,458 Mt CO_2e (MoEF 2018b). From year 2000 to 2016, GHG emission increased by 42%, or 2.2% per annum. In the fire disaster in 2015, emission from LULUCF and fire reached 1,569 Mt CO_2e (OECD 2019). The emission and the loss from ecological, socio-economic during fire event in 2019 is not counted yet.

Forest areas in Indonesia have been delineated into forest management units. There are 321 FMUs, but only 131 of the FMU has got decree of long term work plan of forest management (*Rencana Pengelolaan Hutan Jangka Panjang, RPHJP)* while 139 of FMUs have not developed *RPHJP* (Data Release from DG PHPL, 2019). This relates with lack capacity of the forest managers in developing business plan of the forest area, and other managerial capacity.

FMUs have an important role in the implementation of mitigation and adaptation actions to achieve contribution from forestry sector to national target of NDC. The mitigation and adaptation action planning should be written in the RPHJP and RPHJM of the FMUs; the business models which align with the RPHJP and RPHJM will support the FMUs to achieve NDC target and improve resiliency of the communities on the climate change.

Section A. Project Context

1. Background

(Provide adequate baseline scenario, policy information, related research activities and project history to present a clear background of the problem and the need to address it. Relevant information on baseline figures and information can be attached) (800-1200 words or 1-2 page)

Indonesia covers 120.6 Mha or about 63% of its total land has been designated as forest area. For the purpose of forest sustainability, the forest area is managed in accordance with three functions, e.g. protection forest (29.7 Mha), production forest (68.8 Mha) and conservation forest (22.1 Mha) (MoEF 2018). Indonesia forests with more than 17,000 islands, and 48.8 million people residing in and around the forest provide many functions from environmental services, livelihood of people, the planet, providing clean air and water, conserving biodiversity and responding to climate change. Indonesia forest is well known as mega biodiversity forest of the worlds. Tropical forests of Indonesia cover various ecosystem types, such as mangrove, peatland, karst and rainforests. Each ecosystem has its own biophysical characteristics, which has significant role in providing ecological, social and economic benefit. However, due to deforestation and forest degradation, driving from economic, population and land demand, the habitat has destructed and biodiversity has declined.

According to State Forest Indonesia (MoEF 2018a), deforestation rate in Indonesia declined from 1,09%

in 2014 to 0.48% in 2017 owing to the increase of law enforcement and the increase of awareness of communities. In line with the success of reducing deforestation, number of rehabilitated area has increased from 198,346 ha in 2016 to 200,990 ha in 2017. However, a recent Green Growth Policy Review reported by OECD (2019) showed that Indonesia is in the second highest deforestation rate in the world after Brazil. Total forest area declined by 7% in 2005-2015, due to illegal logging, land clearing for agriculture, mining, and timber plantation (OECD 2019). The impact of recent forest and land fire occurs in 2019 is not reported yet.

The conversion of forest and peatland will reduce carbon stocks and increase GHG emission significantly. The GHG emission becoming worst in peat fire and decomposition. It is reported that GHG emission from land use, land use change and forestry (LULUCF) in 2016 was 1,458 Mt CO_2e (MoEF 2018b). From year 2000 to 2016, GHG emission increased by 42%, or 2.2% per annum. In the fire disaster in 2015, emission from LULUCF and fire reached 1,569 Mt CO_2e (OECD 2019). The emission and the loss from ecological, socio-economic lost during fire event in 2019 is not counted yet.

In 2016, through Law No. 16/2016, Indonesia has ratified Paris Agreement and committed to reduce 29 % of its GHG emissions unconditionally and 41 % conditionally or with financial support from funding partners in 2030. At the same time, the country aims to strengthen economic and poverty alleviation, while reducing emission from forest, which constitute the biggest part of that national commitment.
Focusing on land-based sector would be a strategic solution in achieving GHG emission reductio n outlined in the Nationally Determined Contribution (NDC). According to the NDC, Forestry secto r is going to be the largest contribution in reducing the emission up to 2030. As such, combinin g on wetland and dryland issues would be of the great intervention in this action. It has been targeted in the NDC that without foreign assistant (unconditionally measures) about 17% of the BAU emission from forestry sector or about 500 Mt of CO_2e emissions should be reduced (MoEF 2017).

The climate policy of Indonesia includes mitigation and adaptation actions. Presidential Regulation on National Action on Reducing GHG Emission *(Rencana Aksi Nasional Penurunan Emisi Gas Rumah Kaca*, RAN-GRK) has been enacted as *Peraturan Presiden (Perpres*) Republik Indonesia no.61/2011. The activities of *RAN-GRK* in the forestry sector includes reforestation and afforestation, controlling forest land and peat fire, water management in peatland, combating illegal logging, prevention of deforestation from protected areas, community development through social forestry program, improvement of forest management in the logged overs area in production forest, FMUs development, and non-burning practice in land preparation. Moreover, National Action Plan on Adaptation of Climate Change (*Rencana Aksi Nasional Adaptasi Perubahan Iklim, RAN-API*) has also been launched by BAPPENAS. The activities of RAN-API include support actions to reduce emissions and/or to build resilience and decrease vulnerability to the adverse effect of climate change. The RAN-API aims to strengthen knowledge, technologies, practices and effort of local communities and indigenous people related to addressing and responding to climate change (BAPPENAS, 2014). In 2016, the Ministry of Environment and Forestry has launched the Ministerial regulation No.33/2016 on “The Guideline of Preparation of Climate Change Adaptation Action”. Community based forest management will improve resilience and revenue of the community and social welfare.

Sustainable forest management by improving forest governance and increasing forest cover will provide an opportunity for developing eco-tourism in the forest areas in Indonesia. Natural resources can be sustainably managed when local community have access to the forest and they get benefit from the forest and natural resources, for example through forest-based ecotourism. Ecotourism is travel experience to environmental, both natural and cultural, that ensures the sustainable use, at an appropriate level, of environmental resources and, whilst producing viable economic opportunities for the tourism industry and host communities, makes the use of these resources through conservation of ecosystem biodiversity that beneficial to all role players. Ecotourism is cultural, nature, a travel-learning experience that would benefiting the well-being of local communities and landscapes (Anonymous, 2001).

Forests area of Indonesia has been designated into many Forest Management Units (FMUs) or *Kesatuan Pengelolaan Hutan (KPH)*. Every Forest Manager shall have appropriate capability in managing the forest area sustainably to contribute to the three aspects of sustainable forest management; ecologically mannered, socially adapted and at the same time economically beneficial. The FMUs have to develop a business model based on the long-term forest management planning (*Rencana Pengelolaan Hutan Jangka Panjang, RPHJP*). FMUs have to be able to self-finance their activities, therefore forest based ecotourism can be a solution for self-financing. Currently, there are 321 FMU, but only 131 of the FMU has got decree of long term work plan of forest management (*Rencana Pengelolaan Hutan Jangka Panjang, RPHJP)* while 139 of FMUs have not developed *RPHJP* (Data Release from DG PHPL, 2019). This relates with lack capacity of the forest managers in developing business plan of the forest area, and other managerial capacity.

This proposed project is response to this call, which will bring innovative solutions to improve sustainable forest management practice, to enhance capacity of Forest Management Units (KPH), to contribute to the NDC target and improve resiliency of the communities on the climate change to support SDGs target by 2030.

2. Conformity with AFoCO's Objectives and Strategic Priorities

(It is to exemplify how the project is in consistent with the objectives of AFoCO and which priority area will be addressed specifically.) (300-500 words)

The project will bring innovative solutions to improve sustainable forest management practice, to enhance capacity of Forest Management Unit (KPH), to contribute to the NDC target and improve resiliency of the communities on the climate change to support SDGs target (goal 13) by 2030.

The project's goal aligns with the Strategic Priorities of AFoCO (2019-2023): (1) Achieving the global goal of increasing forest cover up to 3% worldwide; (2) Implementing Paris agreement on climate change, particularly in pursuit of policy approaches for adaptation in forestry sector; and (3) improving livelihood and income through forestry related activities.

The project's goal is consistent with Priority Area 2: Supporting research and development in climate change adaptation approaches.

3. Regionality

(Is the project regional or transboundary in nature? How can the project address the issues appropriately and effectively at the regional level? Most development projects are bilateral or in line with national priorities, but for AFoCO projects, it is crucial to meet the challenges of transboundary or regional issues.) (maximum 300-500 words)

The project will work in the three different ecosystem types in Indonesia, which are peatland, mangrove and combination of karst and lowland forest. Each ecosystem type has its own biophysical characteristics. The similar issue within the three types of ecosystem is how to increase forest cover to reduce GHG emission and to give access to the community surroundings the forest area to get benefit from the forest through programs of community-based forest management. Nevertheless, each ecosystem types has its own challenges.

The regional issue of the project will be represented from case study in peatland ecosystem, which is about peat fire and haze. ASEAN countries have an agreement on Transboundary Haze Pollution caused by forest and peat-land fires. Indonesia has a commitment on the agreement and the

Government of Indonesia (GoI) has taken serious action on the fire prevention and law enforcement. A joint and collective actions among neighborhoods of Indonesia and ASEAN countries are highly desired.

In global issues, the project will support Paris Agreement which has 195 UNFCCC signatories parties, for accounting for reducing GHG emissions and mitigate global warming.

4. Information on Project Site

(The geographical, environmental and socio-economic information with adequate baseline data of the project site(s) should be provided before project intervention. This section should also include appropriate map of the project site, environmental factors, demography and gender concerns of the project site) (400-500 words)

The project is proposing three sites, which has different type of landscape ecosystem, e.g. (1) Peatland ecosystem in the Forest with Specific Purposes of Kepau Jaya, in Siak district, Riau Province; (2) mangrove ecosystem of Ngurah Rai forest park in Badung district, Bali; and (3) Karst and lowland forest area of Maros district, South Sulawesi Province The geographic condition for the three locations would be explained as follow:

(1) The first area is, a Forest Management Unit (FMU) of Sorek unit XIX in Riau Province. The FMU Sorek consisted an area of 139,357 ha. The FMU Sorek consisted of several forest types, e.g. peat swamp forest was 4,302.5 ha in 2017, and forest plantation is as dominant forest type, which is 42,953.95 ha. The KHDTK Kepau Jaya is laid on FMU Sorek. covers an area of 65 ha, located in the Peat Hydrological Unit (Kawasan Hidrologis Gambut, KHG) Sungai Siak-Sungai Kampar. Administratively KHDTK is located in Kepau Jaya village, Siak Hulu sub-district, Kampar district, Riau province. Kepau Jaya village covers an area of 11,416 ha. KHDTK Kepau Jaya is a peatland ecosystem. Soil type is Toposaprist – Tropochemist (peat), peat depth >2m, low fertility, topography flat, elevation between 5-25 m asl. The KHDTK is managed by the R&D Institute of Fiber and Pulp Technology. It is located geographically at 101^{o}26'41" – 101^{o}29'27" E, and 00^{o}18'53" – 00^{o}17'44" N. Yearly rainfall ranging from 1880 -2768 mm (KHDTK Kepau Jaya, without year). Map of land use types of KHDTK Kepau Jaya is in the Figure Attachment 1.

(2) The second area is, FMU Bali Selatan, in Badung district, Bali province. The FMU is dominated by mangrove ecosystem, which covers two sites locations in Benoa bay (627 ha), and Serangan island (746.5 ha). Some part of the FMU is managed by Ngurah Rai forest park. Administratively, Benoa bay is located in Kuta sub-district, Badung district; and Serangan island is located in Denpasar sub-district, Denpasar city, in Bali province. Geographically, it is located in 08^{o}41-08^{o}47 S, and 115^{o}10' – 115^{o}15' E. Ngurah Rai forest park has climate type E (based on Schimdt & Ferguson, 1951) and yearly rainfall is 1302-2070 mm. The mangrove forest is affected by tidal of the sea, located at 0-2 m asl. It is an estuarine of several rivers. Geology formation of the mangrove forest is dominated by alluvial sediment. The Ngurah Rai forest park is managed by Forest Management Unit (FMU) of Forestry Service of Bali Province (BPKH Wilayah VIII, without year). Map of Ngurah Rai forest park is in the Figure Attachment 2.

(3) The third area is, Forest Management Unit of Bulusaraung, Maros and Pangkajene Districts, South Sulawesi province. The FMU is a natural lowland forest and karst ecosystem, which is located in Maros districts. The FMU has various soil types, namely Alluvial Sulfic, Organosol henik, Organosol sapric, Podsol humik and Podosl Orti. Total forest area in Maros distric in 2009 is 68,509 ha, which cover 13,994.78 ha of protection forest; 6,922.56 ha limited production forest, and 17,940.8 ha production forest, and 29,650.79 ha national park. The FMU Bulusaraung covers total area of 51.406 ha. There are several water catchments in the FMU area. The FMU has various potential non-timber forest products, such as pine latex, honey bee, bamboo, and ecotourism. Map of the location is in the Figure Attachment 3.

5. Stakeholder Analysis

(A matrix of stakeholder analysis can be presented to identify how primary and other stakeholders are involved and will be benefited from the project.)

Stakeholder group	Characteristics	Problems, needs, interests	Potential benefits	Involvement in the project
Primary stakeholders				
Communities (farmers, villagers, traders, etc.) of Kepau Jaya village, Labuaja village, and Suwung village.	Community	-Some villagers live inside forest area of Kepau Jaya and it makes a tenurial conflict. -Some villagers in Maros districts need to improve awareness on creating sustainable ecotourism, and non-timber forest products. - Some fisherman and villagers of Bali Selatan interest to get benefit from ecotourism	- No tenurial conflict, - Forest cover increase, - Improvement on management of natural resources and ecotourism	- Active participants in forest rehabilitation, initiating eco-tourism and improvement on utilization of natural resources
Kepau Jaya Forest with Specific Purposes,	A unit under National government	-Improvement in the community based forest management,		Active participation
FMUs of Sorek, Bulusaraung and Bali Selatan	Local government	-Improvement in the community based forest management-Improvement in the eco-tourism. - Increasing forest cover.		Active participation
Forest Research and Developmenet Center, R&D Institute of Fiber and Pulp Technology in Kuok, Riau; and Unit Implementing Office of Cliate Change in Denpasar, Bali	National government	Certainty of Forest area	- No tenurial conflict, - Forest cover increase	Active participation
Secondary stakeholders				

	Forestry Service of Riau province, Bali province, and South Sulawesi province	Provincial government	-Forest cover increase, -economic contribution from forestry increase	Economic contribution increase	Facilitatior support institution
	Tourism service (*Dinas Pariwisata*) of the three provinces	Provincial government	Support for eco-tourism	Support for improving ecotourism	Facilitator and support institution
	Trading and Industry service of the three provinces	Provincial government	Facilitating small-scale industry	Support for improving small-scale industries	Facilitator and support institution
	Tertiary and other stakeholders				
	BAPPENAS	Central government	Policy makers, regulator	Support policy	Support institution
	-DG of Climate Change, DG of Social Forestry, DG of Forest Production of MoEF; -Ministry of Tourism; -Ministry of Trading and Industry;	Central Government	Policy makers	Support policy	Support institution
	National and local journalist	Media/private	Media, news, dissemination,	Dissemination of project achievement and performance	Media support
	Traders	Private	Private	Potential buyers	Buyers

6. Gender Analysis and Mainstreaming

(Based on the gender information, analyze the gender related concerns and describe how this project will help address perceived gender issues). (300-400 words)

Gender equality is mainstreaming in every development sector in Indonesia. The male and female population in Indonesia is roughly balanced at the rate of 50.58% and 49.42%, respectively (BPS 2020). Like men, women also get a similar opportunity for education, therefore women get a chance to develop themselves. However, the culture of patrilineal system (for example: Balinese) may hinder women to improve their capacity higher than men. Other culture, like in Buginese, both men and women have equal rights in the family kinship. Despite of different traditional culture in every project site, the project will give equal opportunity for both men and women in the project participation, with respect to traditional culture in all project sites. The project will collaborate with both genders and give a same opportunity for both men and women.

Section B. Rationale and Objectives

1. Problem Tree

Identify the problem that this project will try to address with the help of a problem tree clearly reflecting the sub-causes and causes towards the identification of the core problem to be addressed (The core problem is usually reflected in the Project title).

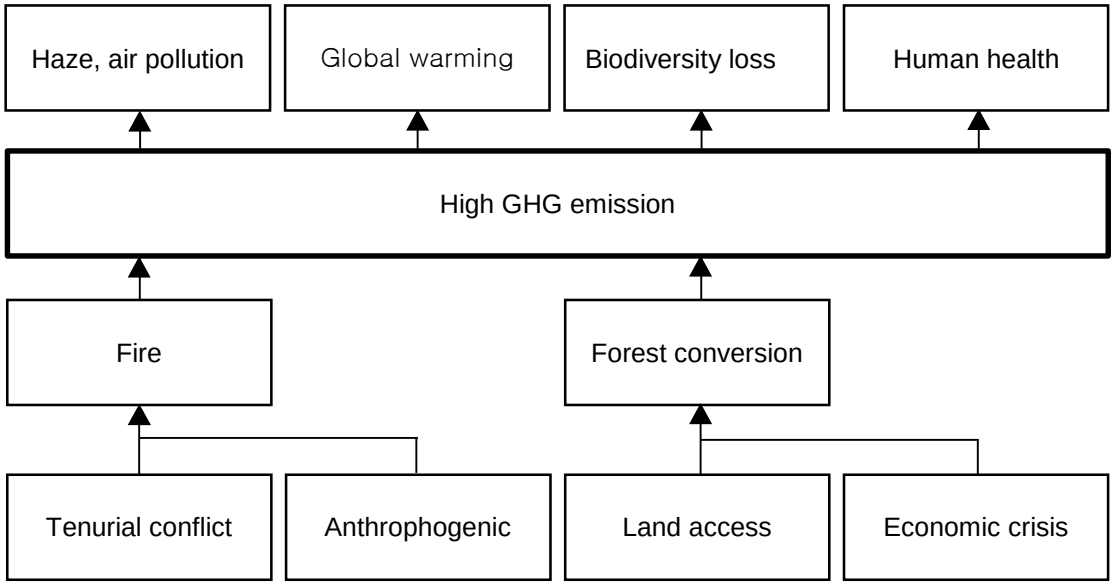


Figure: Problem Tree

2. Problem Description

(Following the preliminary problem analysis, describe core problem to be resolved/addressed. Provide adequate baseline data and information to justify the existence of the problem. Brief description/inter-relationship of the core problem vis-à-vis causes and effects should also be explained.) (1000 words or 1 page)

There are several challenges in forest management in Indonesia. From year 2000 to 2016, GHG emission increased by 42%, or 2.2% per annum. This resulted by the increase of fire and forest conversion. Fire may be resulted from tenurial conflict and human activities (anthropogenic); while forest conversion is resulted from lack of land access and economic crisis. The causes (direct and indirect) of increasing GHG affect haze and air pollution, global warming, biodiversity loss and reduce human health.

Forest areas in Indonesia have been designated into forest management unit (FMU). There are 321 FMUs in all forest area of Indonesia. They play important roles in forest management, to reduce emission from forestry sector, increase forest cover, but in the same time get economic benefit from managing forest in sustainable manners and in collaboration with the communities who live in surrounding the forest area. Currently, FMUs have to develop business plan and create an innovative forest management to improve contribution from forestry sector. Therefore, the project will facilitate FMUs to improve capacity of forest managers in forest management, to rehabilitate the degraded forest, to create and improve their business plan, to improve livelihood of villagers and farmers through ecotourism development and/or other possible options based on potential forest products.

3. Logical Framework Matrix

(A Logical framework matrix is needed to illustrate how the inputs and activities will contribute to the achievement of the objective of the project and what measurable indicators and means of verification will be used to evaluate the outputs. It provides a baseline for monitoring and evaluation of project achievements and/or associated issues and concerns.)

Output/activities	Narrative	Objectively Verifiable Indicators (OVIs)	Means of Verification	Important Assumption
Goal: To bring innovative solutions to sustainable management practice and enhance capacity of Forest Management Unit (KPH) and local communities on contributing to Indonesia's emission reduction target and Improving biodiversity landscape to support SDGs, namely: SDG #1 No Poverty, SDG #8 (promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work), SDG # 13 mitigating and adaptation to Climate Change, and SDG #15 (to protect, restore and promote sustainable use of terrestrial ecosystem and sustainably managed forests, combat desertification, halt and reverse land degradation and biodiversity loss).				
Outcome(s): 1. Improved forest covers by ranging from 0.01-0.65% from a baseline of ranging from 1,547.75-517,600 ha within 3-5 years after the project, and protect habitat loss with more sustainable forest management; 2. Contributed by 10% to the NDC (RAD GRK) target of the project sites from a baseline that to be determined during the project through sustainable forest management within 3-5 years after the project; 3. Improved the capacity of 30-50% of forest managers and communities at least in the three (3) participating FMUs to practice sustainable forest management within 3 years after project; 4. Improved livelihood of the communities through the implementation of forest-based livelihood by 10% from a baseline that to be determined during the project and increase FMU's contribution of at least 7% to forest sector economic development.				
Objective 1: To establish baseline information by mapping the existing biophysical (spatial temporal), socio-economic condition (before and after the project), and potency of natural resources in the three project sites in the beginning of the project				
Output 1. Map of existing biophysical condition and baseline data of biophysical condition of three project sites (Riau, Bali, and South Sulawesi) produced through GIS mapping and analysis by first semester of Year 2				
Activity 1.1 Collect and analyze data and information for scoping and spatial analysis	Surveys and assessments for scoping site and documentation of specific concerns per project site, including spatial analyses in collaborating with the local government and	- Three meetings /consultations with the local government/FMUs each of the three project sites. - Data sets for each project site obtained from the scoping and spatial analysis in the form of maps and studies	Project reports and minutes of meetings; spatial analysis maps; photo and video documentations; attendance list of participants.	Assumptions are that the Team will conduct the activities and do field work in three study sites (Riau, Bali, South Sulawesi). There will be no more restrictions on travel and face to face meeting. The local governments and FMUs are will be able to cooperate.

	FMUs.	conducted by the project team within Q2 of Year 2.		Otherwise, the alternative in case if travel/face to face meeting restricted due to Covid-19 the consultation meeting will be held online. And the spatial analysis will be carried out by local partners (FMUs officers or local researchers)
Activity 1.2 Collect and analyze baseline data and information of carbon stock, emission, biodiversity; and identification of potential commodities in three sites (Riau, Bali, South Sulawesi)	Collect and analyze data and information about carbon stock, emission, biodiversity in the three sites (Riau, Bali, South Sulawesi) for at least 10 ha each site, twice in the beginning of the project to produce the baseline dataset and at the end of the project to assess the increase of carbon stock, emission, and biodiversity after the project implemented. the materials will be analyzing in the lab to assess the carbon and emission. From the first biodiversity assessment the team identify and analyze the potential commodity to be developed in each site.	- Baseline dataset of Carbon stock and emission assessment before project in three sites (Riau, Bali, South Sulawesi) obtained within 6 months Q4 of Y1 - Baseline dataset of Biodiversity assessment before project in three sites (Riau, Bali, South Sulawesi) obtained within 6 months Q4 of Y1 - Potential commodities list based on site resources obtained within 6 months Q4 of Y1 - Dataset of evaluation of carbon stocks and emission assessment after project in three sites obtained within 6 months Q1 of Y4. - Dataset of evaluation of biodiversity after project in three sites obtained within 6 months Q1 of Y4	Project reports including; Maps / lab reports / photo and video documentations)	Assumptions are that the Team will conduct the activities and do field work in three project sites (Riau, Bali, South Sulawesi). There will be no more restrictions on travel and face to face meeting. The local governments and FMUs are will be able to cooperate. Otherwise, the alternative in case if travel/face to face meeting restricted due to Covid-19 the collection of data will be carried out by local partners (FMUs officers or researchers).

Output 2. Current status and baseline data of socio-economics condition of three project sites (Riau, Bali, South Sulawesi) made available by first semester of Year 2				
Activity 2.1 Survey and assess data and information of Socio-economic (livelihood, economic assessment, market analysis) at the beginning and end of the project	The team project conduct survey and assessment of the current status of socio-economic of the community (and the FMUs), including the livelihood, economic condition, and market analysis in three project sites (Riau, Bali, South Sulawesi) in the beginning of the project to produce the baseline data, and the second survey in the end of the project to evaluate the project impact to the socio-economic condition of the community	- Number of respondents (at least 30 participants) for socio-economics survey in each site - Number of meetings (at least 3 meetings) with the communities in each site - Baseline dataset and information of Socio-economic condition (livelihood, economic assessment, market analysis) before project in three project sites obtained within 6 months Q1 of Y2. - Dataset of evaluation on socio-economics condition after project in three sites obtained within 6 months, Q1 Y4.	Project documents (reports of socio-economics survey and assessment in three study sites, in the beginning of project; Interview List / recording/photo documentation of interviews)	Assumptions are that the Team will conduct the activities and do field work in three project sites (Riau, Bali, South Sulawesi). There will be no more restrictions on travel and face to face meeting. The members from the government & the community will be able to cooperate and work together. - Alternative if travel/face to face meeting restricted due to Covid-19.
Output 3. Prospective commodities that have good market opportunities identified in three project sites by semester1 Y2				
Activity 3.1 Investigate and conduct value chain analysis and market analysis of potential commodities	The team project conduct analysis on value chain and market analysis on several potential commodities at three project sites, determine the supporting and the constraint factors for further development and reveal the most potential commodity to be marketed	- Value chain result for each potential commodity and its market analysis in one time - The highest and most prospective commodity value in one time	- Project reports including the breakdown of analysis detail in definite value	- All necessary data are available and analysis can be conducted by using several verified formulas

Objective 2: To facilitate business plans of the FMUs at three project sites based on long and mediate term plan (RPHJP, RPHJM) of the FMU in three project sites				
Output 4 Strengthened capacity of FMUs and community in business plans development at three project sites				
Activity 4.1 Conduct capacity building on GIS and Remote sensing analysis for FMU Officers at three project sites	The team project will transfer the knowledge and increase the skill of FMU personnel in GIS and remote sensing at three project sites	- Two trainings on GIS and remote sensing analysis at three project sites in Q 1 of Y2 - 30 participants involved in each project site	- Project reports and documents - Training documentation (photo, video, participant list) - Analysis result on capability increment showing the increase of skill and knowledge before and after training - Questionnaire document and analysis	The project team can visit directly to transfer the knowledge and skill to personnel in each targeted site (no travel restriction). The field practice can be conduct to increase the knowledge transfer In case, Covid-19 is still the main constraint for traveling between island, training can be held by daring however the field practice should be kept available and local counterpart at each site will be designated to assist the field practice.
Activity 4.2 Conduct capacity building on accounting of carbon stocks and emissions reduction, for FMU officers in the three project sites	Project team will conduct training for FMU officers in the three project sites to increase their capacities in calculating and estimating carbon stock accounting and emission reduction at Q2 of Y2	- One training at each project site on accounting of carbon stock and emission reduction - Increased capacity from FMU officers in accounting carbon stock and emission reduction - 20 participants trained in each project site	- Reports - Documentation (photo, video, list participant) - Training module and achievements	Team can conduct direct training and travel across island. Involved stakeholders can cooperate each other and knowledge transfer run smooth as face to face training will create more effective information transfer between trainer and trainee.
Activity 4.3 Conduct Capacity building/training on initiating and promoting eco-tourism for FMU officers at the three project sites	The team project will transfer the knowledge and increase the skill of FMU officers in initiating and promoting eco-tourism at three project sites	- One training on initiating and promoting at three project sites in Q3 of Y2. - 25 participants trained in each project site	*Same as above*	*Same as above*

Activity 4.4 Conduct Capacity building on startup business (including upgrade products or services through value addition) and online business for FMU officers at the three project sites	The team project will transfer the knowledge and increase the capacities of FMU officers on developing startup business and online business at three project sites	- One training on initiating and promoting at three project sites in Q4 of Y2. - 25 participants trained in each project site	*Same as above*	*Same as above*
Output 5. Developed Business Plans of the FMUs in three project sites				
Activity 5.1 Workshop on developing scenario of Business Plans (forest-based ecotourism, etc., based on site resources potential and market opportunities) for the three project sites	Conducting workshop to collect data and information needed in developing forest-based ecotourism Business Plan in each study sites at Q4 of Y2	- One workshop at each project site attended by 25 participants - One viable business plan for each site developed within 6 months.	- Business Plan documents - Documentation of the activity	All stakeholders support in providing the data needed. Direct meeting and discussion are preferred. However, Covid 19 is still the threats in blocking the direct meeting. Thus, online meeting and discussion to gather information stand as alternative in collecting materials needed for Business Plan
Activity 5.2 Share learning and policy dialogue (workshop & Focus Group Discussion (FGD)) in the district and provincial level on the developed Business Plan of the FMUs	The project team will conduct direct workshop and FGD in provincial level to share learning and policy dialogue on developed Business Plan at each project site (FMU) at Q2 of Y3.	- One workshop and one FGD at each project site attended by 20 participants - Recommendations or corrective actions on the business plan.	- Reports - Documentation of activity (photo, video, participants list) - Recommendation list, corrective action	No travel restriction available so that direct meeting for more optimum discussion result can be held. Project team can facilitate effective and efficient workshop

Objective 3. To develop demonstration plots for carbon stock enhancement in FMUs or Forest Area with Specific Purpose (KHDTK) areas 10 ha each site in Q4 of Y1				
Output 6. Three sites for demonstration plot establishment appropriately located and technically designed				
Activity 6.1 Participatory rural appraisal (PRA) on demonstration plat site matching	Project team will conduct FGD at farmer groups or local communities' level to decide plant species selection based on demonstration plot site matching at Q4 of Y1.	- 25-30 farmers at each site involved in tree-site matching - One FGD at each project site to select plant species based on tree-site matching and other criteria.	- Reports - Documentation (photo, video, list participant) - Training module and achievements	- No travel restriction. - Team can conduct direct FGDs and travel across island. Involved stakeholders can cooperate each other.
Output 7. Demonstration plots established in 3 ecosystem types of three sites (at least 10 ha per each site)				
Activity 7.1 Establishing demonstration plots	Project team will prepare planting stocks and temporary nursery, Land preparation and planting, addition of soil amendment/fertilizer	- Planting stocks individuals by species at least 5000 seedlings per site - Temporary nurseries are established at each project site - Planting seedlings - Soil amendment or fertilizer addition	- Activity report - Documentation during activity (photo, video, analysis result) - 1 Nursery building at each project site - Planting stocks availability - Demonstration plots	Seed/seedlings are available. Rainy season or water availability at each site Local community/farmer group have been established No restriction of travel
Output 8. Maintenance and monitoring of Demonstration plot at each project site at the interval of 6 months after planting				
Activity 8.1 Maintenance and growth monitoring of the demonstration plots	Project team will conduct field survey to monitor the growth of planted seedlings at each project site at every 6 months interval until the end of the project duration	- Growth data set including the survival rate, height, diameter (after seedling reaching> 1.3 m), health status at 6 MAP, 12 MAP, 18 MAP, 24 MAP and 30 MAP.	- Activity report at each interval time - Documentation including photo and/or video	Project team frequently conduct the monitoring and growth assessment on each plot at project site and collect growth data

Objective 4: To transfer techniques and awareness of project model establishment to relevant stakeholders through Synthesis, policy practice recommendations, and disseminations				
Output 9. Technique and awareness of project model transferred to project stakeholders through workshops, policy briefs and publications				
Activity 9.1. Organize workshop for the midterm and end project results	Project team will organize workshop for team members both at Bogor and project site to compile the result and do analysis in order to prepare data for publication.	- Two workshops for partners involved in the project, each attended by 20 participants. This meeting will be held Q4 of Y2 and Y3. - One metadata from all activities per project site.	- Activity report - Publication drafts (paper, policy brief, flyer, booklet, technical guide) - Video about project activity from each site.	Reliable data are available with good and strong analysis.
Activity 9.2 Publication and dissemination (workshop, seminar, conference, publications)	Project team will organize seminars/workshop to disseminate the project result and attend the scientific meeting to deliver the findings	- One seminar or workshop held at Q1 of Y4 attended by 20 participants - One video of each project site - One international conference will be attended	- Activity report - Publication list - Meeting attendance	No travel restriction applied due to Covid-19 outbreak. However, workshop and scientific meeting can be held in online platform when travel restriction still be applied
Project Management activities				
Activity 9.3 Review, Monitoring, Evaluation: mid-term, annual review, and reporting substance and financial	Project management will conduct field survey to review, monitor and evaluate the progress of the project and PSC meeting	- -Two field trips for monitoring and evaluation, at Q4 of Y2 and Y3. - Three PSC meeting at Q1 of Y2, Y3, Y4. - 8 field trips to each site for monitoring & evaluation of 8 outputs at Y2, Y3, and Q1 of Y4.	- Activity report and review - Documentation of the progress - Monitoring report - Documentation of the progress - Recommendation and corrective action list	No travel restriction
Activity 9.4 Monitoring and Evaluation of each output	Project management will conduct field survey to monitor and evaluate the progress of each output. The field survey will be conducted at the	- 8 field trips to each site for monitoring & evaluation of 8 outputs, at Y2, Y3 and Q1 of Y4. - One semester project report on 15 July every year.	- Activity report and review - Documentation of the progress - Monitoring report - Documentation of the progress	No travel restriction

	completion time of the project output	- One annual project report on 15 January every year	- Recommendation and corrective action list	
Activity 9.5 Staff Resources (Allowance or honorarium of project personnel)	Designated project team will earn salary (monthly or at every determined schedule)	- Monthly salary receipts - Bills and receipts of all expenditure.	- Bills of all expenditure are documented - Journal and Monthly finance report	Financial arrangement runs as it schemed, and there is no additional cost.

* Please note that since Indonesia has developed a long and mediate term plan (RPHJP, RPHJM) of the FMU in three project sites included in the project proposal, the development of the said long and mediate term plan (RPHJP, RPHJM) was excluded.

4. Perceived Project Impacts

(The project should provide description on how it will address the key problems and what are the perceived impacts that the project may positively contribute in the mid and long terms. Note that one output can lead to one or more outcomes and vice versa) (400-500 words)

a. Impacts at the Outcome level

The project will improve forest covers by ranging 0.01-0.65% from the baseline within 3-5 years after the project, and protect habitat loss with more sustainable forest management; contribute to the 10% of NDC target from the project site, improve capacity of forest managers and communities and improve livelihood of the communities through implementation of forest-based livelihood by 10% from the baseline.

b. Impacts at the Output level

With nine outputs, the project will provide data and information about biophysical and socio-economic condition of the project sites in the three FMUs, list of potential commodities and their value chains and markets, strengthening capacity of forest managers and communities, viable business plan, established three demonstration plot of reforestation/afforestation, and transfer knowledge resulted from the project.

c. Impacts at the Activity level

From the activities, the project will impact on the increasing awareness of the community on better forest and natural resources management, improving creativity on managing forest and natural resources, increasing revenue and livelihood options from ecotourism. Gender equality participation is an important matter in the whole process of the project implementation. Participatory research action will applied in project implementation.

Section C. Description of Project Interventions

(Section C will be composed of two (2) matrices without narrative descriptions.)

1. Work Plan and Schedule period: July 2021 – June 2024

	Performance Indicator	Responsible Person/ Body	Annual Timeline																								Remarks
			Year 1				Year 2				Year 3				Year 4				…								
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4									
Objective 1 To establish baseline information by mapping the existing biophysical (spatial temporal), socio-economic condition (before and after the project), and potency of natural resources in the three study sites in the beginning of the project																											
Output 1: Map of existing biophysical condition and baseline data of biophysical condition of three project sites (Riau, Bali, and South Sulawesi) produced through GIS mapping and analysis by first semester of Year 2																											
Activity 1.1 Collect and analyze data and information for scoping and spatial analysis	- Three meetings /consultations with the local government/FMUs. - Maps and Data sets for each project site obtained from the scoping and spatial analysis	*FRDC team / National expert*																									
Activity 1.2 Collect and analyze baseline data and information of carbon stock, emission, biodiversity; and identification of potential commodities in three sites (Riau, Bali, South Sulawesi)	- Baseline dataset of Carbon stock and emission assessment before project obtained within 6 months Q4 of Y1 - Baseline dataset of Biodiversity assessment before project in three sites (Riau, Bali, South Sulawesi) obtained within 6 months Q4 of Y1 - Potential commodities list based on site resources obtained within 6 months Q4 of Y1 - Dataset of evaluation of carbon stocks and emission	*FRDC team / National expert*																									

	assessment after project in three sites obtained within 6 months Q1 of Y4. - Dataset of evaluation of biodiversity after project in three sites obtained within 6 months Q1 of Y4																												
Output 2: Current status and baseline data of socio-economics condition of three project sites (Riau, Bali, South Sulawesi) made available by first semester of Year 2																													
Activity 2.1 Survey and assess data and information of Socio-economic (livelihood, economic assessment, market analysis) at the beginning and end of the project	- Number of respondents (max. 30 participants) for socio-economics survey in each site - Three meetings (with the communities in each site - Baseline dataset and information of Socio-economic condition (livelihood, economic assessment, market analysis) before project in three study sites (Q1 Y2) - Dataset of evaluation on socio-economics condition after project in three sites obtained within 6 months, Q1 Y4.	*FRDC team / National expert*																											
Output 3. Prospective Commodities that have good market opportunities identified in three study sites by semester1 Y2																													
Activity 3.1 Investigate and conduct value chain analysis and market analysis of potential commodities	- Value chain result for each potential commodity and its market analysis in one time - The highest and most prospective commodity value in	*FRDC team / national expert*																											

	one time																										
Objective 2: To facilitate business plans of the FMUs at three study sites																											
Output 4 : Strengthened capacity of FMUs and community in business plans development at three project sites																											
Activity 4.1 Conduct capacity building on GIS and Remote sensing analysis for FMU Officers at three project sites	- One training on GIS and remote sensing analysis at three project sites in Q 2 of Y2 - 30 participants will be involved in each project site	*FRDC team / National expert*																									
Activity 4.2 Conduct capacity building on accounting of carbon stocks and emissions reduction, for FMU officers in the three project sites	- One training at each project site on accounting of carbon stock and emission reduction - 20 participants of forest managers will be involved	*FRDC / National expert*																									
Activity 4.3 Conduct Capacity building/training on initiating and promoting eco-tourism for FMU personnel at the three project sites	- One training on initiating and promoting at three project sites in Q3 of Y2. - 30 participants involved (communities & forest managers) in each project site	*FRDC / National Expert*																									
Activity 4.4 Conduct Capacity building on startup business (including upgrade products or services through value	- One training on initiating and promoting at three project sites in Q4 of Y2. - 25 participants involved in each project site	*FRDC / national expert*																									

addition) and online business for FMU personnel at the three project sites																											
Output 5: Developed Business Plans of the FMUs in three study sites																											
Activity 5.1 Workshop on developing scenario of Business Plans (forest-based ecotourism, etc., based on site resources potential and market opportunities) for the three project sites	- One workshop at each project sites in Q4 Y2 - One viable business plan for each site developed within 6 months.	*National Expert & FRDC*																									
Activity 5.2 Share learning and policy dialogue (workshop & FGD) in the district and provincial level on the developed Business Plan of the FMUs	- One workshop and one FGD at each project site at Q2 Y3, 25 participants - Recommendation or corrective actions on the business plan.	*FRDC /national expert*																									
Objective 3. To develop demonstration plots for carbon stock enhancement in FMUs or Forest Area with Specific Purpose (KHDTK) areas 10 ha each site in Q4 of Y1																											
Output 6. Three sites for demonstration plot establishment appropriately located and technically designed																											
Activity 6.1 Participatory rural appraisal (PRA) on demonstration plat site matching	- - Participant of 25-30 farmers at each site - One FGD at each project site to select plant species based on tree-site matching and other criteria.	*FRDC / National expert*																									

Output 7: Demonstration plots in 3 types area established in three sites at least 10 ha each site																														
Activity 7.1 Establishing demonstration plots	- Planting stocks individuals by species at least 5000 seedlings per site - Temporary nurseries are established - Planting seedlings - Soil amendment or fertilizer addition - 3 Demonstration plots are established	*FRDC / national expert*																												
Output 8. Demonstration plot at each project site is well maintained and monitored at the interval of 6 months after planting																														
Activity 8.1 Establishing demonstration plots	- Growth data set including the survival rate, height, diameter (after seedling reaching> 1.3 m), health status at, 6 MAP, 12 MAP, 18 MAP, 24 MAP and 30 MAP.	*FRDC/National expert*																												
Objective 4: To transfer techniques and awareness of project model establishment to relevant stakeholders through Synthesis, policy practice recommendations, and disseminations																														
Output 9. Technique and awareness of project model transferred to project stakeholders through workshops, policy briefs and publications																														
Activity 9.1 Organize workshop for the midterm and end project results	- Two workshops for partners involved in the project. This meeting will be held Q4 of Y2 & Y3 - One metadata from all activities per project site.	*FRDC / Resource person*																												
Activity 9.2 Publication and dissemination (workshop, seminar, conference, publications)	- One seminar or workshop held at Q4 of Y3 - One international conference will be attended	*FRDC / Resource person*																												

Activity 9.3 Review, Monitoring, Evaluation: mid-term, annual review, and reporting substance and financial	- Review, Monitoring, Evaluation: mid-term, annual review, and reporting substance and financial	*FRDC / PSC /*																										
Activity 9.4 Monitoring and Evaluation of each output	- Eight field trips to each site for monitoring & evaluation of 8 outputs, at Y2, Y3 and Q1 of Y4. - One semester project report on 15 July every year. - One annual project report on 15 January every year	*FRDC / PSC /*																										
Activity 9.5 Staff Resources (Allowance or honorarium of project personnel)	- Monthly salary receipts - Bills and receipts of all expenditure.	*Project magement*																										

2. Budget (USD)

Objective/ Output/ Activity	Unit Cost (USD)	Unit 1	Quantity 1	Unit 2	Quantity 2	Total Cost	Budget Allocation by Year (USD)					
							Year 1	Year 2	Year 3	Year 4	…	Total Cost
Objective 1: *to establish baseline information by mapping the existing biophysical (spatial temporal), socio-economic condition (before and after the project), and potency of natural resources in the three study sites in the beginning of the project*												
Output 1: Map of existing biophysical condition and baseline data produced through GIS mapping and analysis												
Activity 1.1 Collect and analyze date and information for scoping and spatial ananlysis												
1.1.1 Inception meeting by Zoom						*957*	*957*					
1.1.2 Kick off meeting by Zoom						*1,693*	*1,693*					
1.1.3 Stakeholders meeting by Zoom						*1,768*	*1,768*					
Activity 1.2 Collect and analyze baseline data and information of carbon stock, emission, biodiversity; and identification of potential commodities in three sites (Riau, Bali, South Sulawesi)												
1.2.1 Remote sensing, GIS data collection and analysis						*13,260*	*13,260*					
1.2.2 Collecting data and information of carbon stock, emission and biodiversity						*30,012*	*15,096*			*14,916*		
Sub-total (Output 1)						*47,691*	*32,775*			*14,916*		*47,691*
Output 2: Current status and baseline data of socio-economics condition												

Activity 2.1 Survey and assess data and information of socio-economic (livelihood, economic assessment market analysis)						*35,760*	*17,910*			*17,850*		
Sub-total Output 2:						*35,760*	*17,910*			*17,850*		*35,760*
Output 3: Prospective commodities that have good market opportunities identified												
Activity 3.1 Investigate and conduct value chain analysis and market analysis of potential commodities						*12,900*		*12,900*				
Sub-total (Output 3)						*12,900*		*12,900*				*12,900*
Total (Objective 1)						*96,351*	*65,601*	*12,900*	*0*	*32,776*		*96,351*
Objective 2: To facilitate development of business plans of the FMUs at three study sites based on long and mediate term plan (RPHJP, RPHJM) of the FMU in three project sites												
Output 4: Strengthened capacity of FMUs and community in business plan development at three project sites												
Activity 4.1 Conduct Capacity building on GIS and RS analysis for three forest type management (mangrove, peat swamp & karst)						*40,725*		*40,725*				
Activity 4.2 Capacity building on accounting of carbon stocks and emission reduction, directed to FMUs officer in three project sites						*29,725*		*29,725*				
Activity 4.3 Capacity building on initiating and promoting eco-tourism						*44,925*			*44,925*			
Activity 4.4 Capacity building on startup business and online business at three project sites						*44,925*			*44,925*			
Sub-total (Output 4)						*160,300*	*0*	*70,450*	*89,850*	*0*		*160,300*

Output 5: Developed business plans of the FMUs in three project sites												
Activity 5.1 Workshop on developing scenario of business plan (forest based ecotourism, etc.)						*35,500*		*35,500*				
Activity 5.2 Share learning and policy dialogue (workshop and FGD) in the district/provincial level on the developed business plan (ecotourism, etc.) of the FMUs						*28,975*			*28,975*			
Sub-total (Output 5)						*64,475*	*0*	*35,500*	*28,975*	*0*		*64,475*
Total (Objective 2)						*224,775*	*0*	*105,950*	*118,825*	*0*		*224,775*
Objective 3: To develop demonstration plots for carbon stock enhancement in FMUs and KHDTK areas												
Output 6: Three sites for demonstration plot establishment appropriately located and technically designed												
Activity 6.1 Participatory research action on demonstration plot site matching						*30,800*	*30,800*					
Sub-total (Output 6)						*30,800*	*30,800*	*0*	*0*	*0*		*30,800*
Output 7: Demonstration plots in 3 ecosystem types established in three project sites (at least 10 ha per each plot)												
Activity 7.1 Establishment demonstration plot						*45,834*	*45,834*					
Sub-total (Output 7)						*45,834*	*45,834*	*0*	*0*	*0*		*45,834*
Output 8: Maintenance and monitoring of *demonstration plot at each project site at the interval of six months after planting*												
Activity 8.1 Maintenance and growth						*12,690*		*6,345*	*4,230*	*2,115*		

monitoring of the demonstration plots												
Sub-total (Output 8)						*12,690*	*0*	*6,345*	*4,230*	*2,115*		*12,690*
Total of Objective 3:						*89,324*	*76,634*	*6,345*	*4,230*	*2,115*		*89,324*
Objective 4: To transfer techniques and awareness of project model establishment to relevant stakeholders through Synthesis, policy practice recommendations, and disseminations												
Output 9: Organize workshop for the midterm and end project results for stakeholders through workshops, policy briefs and publications												
Activity 9.1 Organize workshop for the midterm and end project results for stakeholders through workshops, policy briefs and publications						*57,950*		*28,975*	*28,975*			
Activity 9.2 Disseminate the results of project through seminars/workshops and development of publications						*50,870*		*12,470*	*4,250*	*6,450*		
Activity 9.3 Review, Monitoring, Evaluation (including external audit)						*20,000*	*1,100*	*6,700*	*6700*	*5,500*		
Activity 9.4 Management support for operations						*11,210*	*4,910*	*2,600*	*2,600*	*1,100*		
Activity 9.5 Staff resources (allowance/honorarium of project personnels)						*65,520*	*10,920*	*21,840*	*21,840*	*10,920*		
Sub-total (Output 9)						*205,550*	*16,930*	*72,585*	*64,365*	*23,970*		*205,550*
Total (Objective 4)						*205,550*	*16,930*	*72,585*	*64,365*	*23,970*		*205,550*
*Program Support (12% of subtotal) * Financial Regulations 3.4*						*84,000*						
Grand Total						*700,000*						
**Note: Exchange rate*	*1 USD = IDR 14,000 (Please use the existing UN exchange rate applied to the budget estimates.)*											

Section D. Project Implementation

1. Implementation Arrangement

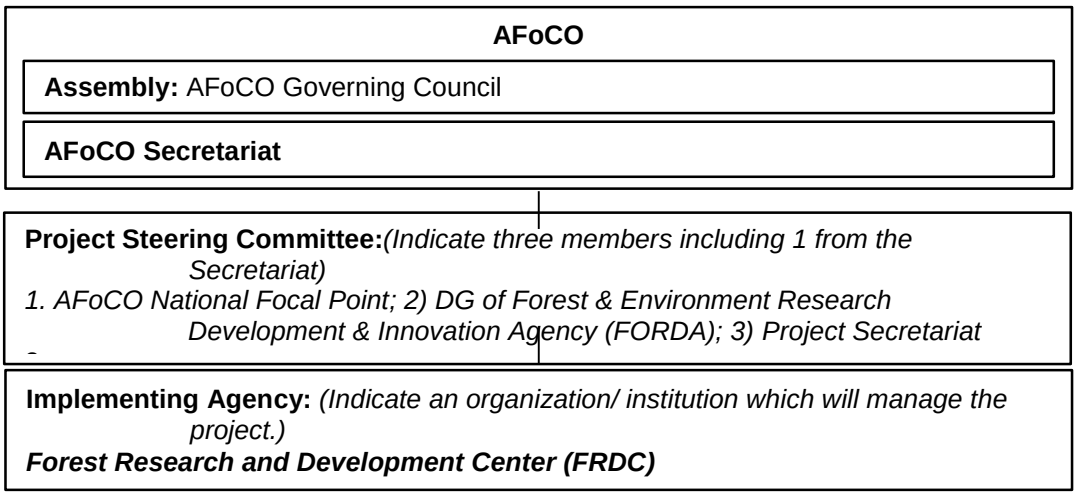
(Illustrate the project implementation arrangements in the form of an organogram. The organogram should include those institutions and organizations that will be collaborating with the IA in carrying out Project activities at different levels of implementation. As part of implementation, it will also cover how primary and other stakeholders are involved and linked each other in the project structure. Also provide the indicative number of staffs to be involved in the project) (400-500 words)

The primary stakeholder will work closely with the project, while Secondary stakeholder will play role as facilitator and coordination.

The tertiary stakeholder will be as resource person in 'policy dialogue and share learning.

The Implementing Agency of the project will be: Forest Research and Development Center, under FORDA-MoEF of Indonesia.

The organizational chart is shown in Figure 2.



2. Reporting and Monitoring Arrangements

(Monitoring arrangements must be formulated in line with logical framework matrix, AFoCO project manual and related guidelines.) (300-500 words)

The reporting will follow the timeline based on the AFoCO.Project Manual. In the agenda, we will put four (4) monthly reporting (finance and substance). Monitoring for each Objective will be undertaken every year. Annual meeting with AFoCO and Steering Committee will be conducted yearly, under consultation with the National Focal Point of AFoCO.

Monitoring and Evaluation (M & E) is an embedded concept and constitutive part of the project. Monitoring activities will be done to determine if the project is proceeding based on the identified activities and schedules. While during an evaluation, information from previous monitoring activities will be used to understand the ways in which the project should proceed and whenever adjustments have to be taken. Further, evaluation process will be an analysis or interpretation

of the collected data which delves deeper into the relationships between the results of the project, the effects produced by the project and the overall impact of the project. M and E will be done internally by the respective project management offices and independently through the Task Force for the Assessment of the current AFoCo Agreement, or similar bodies to be created for the same purpose.

Quarterly monitoring and evaluation will be conducted through submission of quarterly progress reports of the implementing agency. Further, field monitoring and evaluation will be conducted by the Project Secretariat with AFoCO secretariat.

To ensure effective and efficient monitoring of project implementation, performance indicators as well as process indicators for milestone accomplishments will be developed based on the Project's approved Work and Financial Plan (WFP).

3. Environmental and Social Risk and Management

With reference to the environmental and social risk category for the project, identify the specific potential risks and identify mitigation measures. For low risk project, integrate relevant mitigation in the project logical framework matrix as identified under 'important assumptions'. For medium and high risk projects, carry out Environmental and Social Impact Assessment and accordingly suggest mitigation measures through and Environmental and Social Management Plan as specified in the AFoCO's Environmental and Social Management System. Please indicate relevant domestic policies/guidelines relative to Environmental and Social Impact Assessment and Planning (400-500 words)

Potential risk for the project is identified based on potential issues that could be negatively impact the key business of the project, like for example the identified stakeholders are not willing to involve and contribute in the project and other dispute. These risks could be avoided by strategic engagement and clear descriptions on roles and rights of each partner.

Other potential risk is the change of national regulation or policy relates with the re-organization of research and development institution under the MoEF and organization of Forest Management Unit. This risk could be avoided by stated this as an unpredictable condition in the agreement before the project is implemented.

However, unintended condition such as natural disaster of fire, drought and flood would be anticipated at national, provincial and local levels learning from the current conditions.

Potential Risk	Mitigation Measures
Conflict with villagers who live inside the forest area	*Social approach in the beginning of the project implementation, participatory research actions will be applied*
Forest fire	*The project will apply no-burning treatment in land preparation.*

4. Sustainability Mechanism

(This will clarify how to sustain the results and outcome of the project in the aftermath of the project and clarify the political support, institutional capacity of the beneficiary, and sustainability in environmental, financial and technological aspects consistent with those that are identified in the logical framework matrix under 'Important Assumptions'.) (400-500 words)

Project sustainability depends on number of factors, such as: political support for the project, the appropriate choice of technology, the managerial capacity of the beneficiary, and economic and financial support. Therefore, the project should be designed to be sustainable in technical, financial, social, economic and institutional terms. The project shall create smart exit strategy for sustainability.

1) Institutional sustainability. The implementing institutions have the technical and financial capacity to continue the activities after project completion. This project is also designated in collaborating multi partners, such as DG of Sustainable Management of Production Forest, Forestry Services at province level, BAPPENAS, BAPPEDA, three FMUs, two Forest & Environment R&D Institutes, and private sectors.

2) Technical sustainability. In order to improve the capacity building of forest managers and forest users on managing tropical forest and conservation biodiversity, FRDC will work closely with choice of methods and technologies is the use of local community.

3) Social sustainability. This project will involve local communities surrounding forest area. All stakeholders are involved in the process to achieve the goals of the project. The rural/local community as a subject to develop income and get some incentives. Thus the business model will increase the revenue of forestry sector. Gender will be mainstreaming in the project.

4) Economic and Financial sustainability. After the project completion, we expect that the FMUs have settled with their business model and get revenue from the on-going activities in the forest area. Establishing the model which the FMUs and local communities have access to the market with transparent price, and in return markets support e, they may consider creating online market and startup business.

All those sustainability factors occur only when the politics condition is stable during the project implementation. The exit strategy shall be created in the beginning of the project, implemented in the project, so that the beneficiaries will have the capacity needed for continuation of their programme on managing forest sustainably.

Appendix. Project Sites

Figure Appendix 1. KHDTK Kepau Jaya, Riau

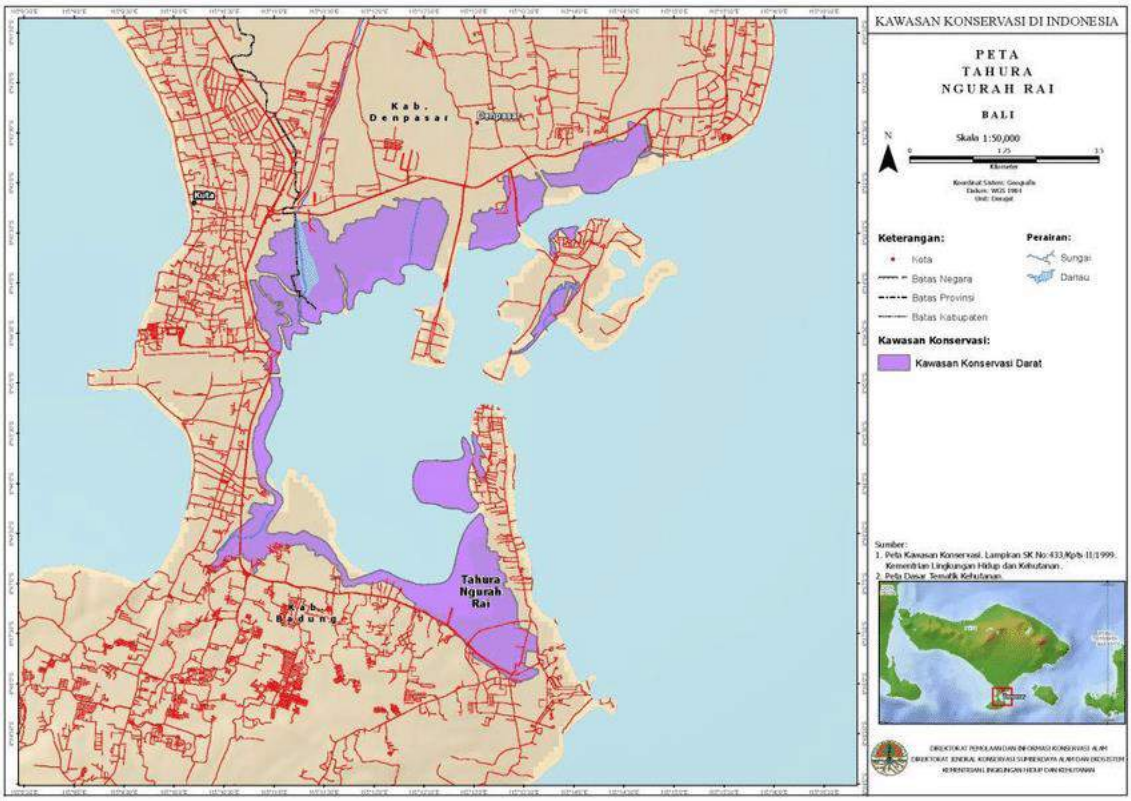


Figure Appendix 2. Ngurah Rai Forest Park , Bali

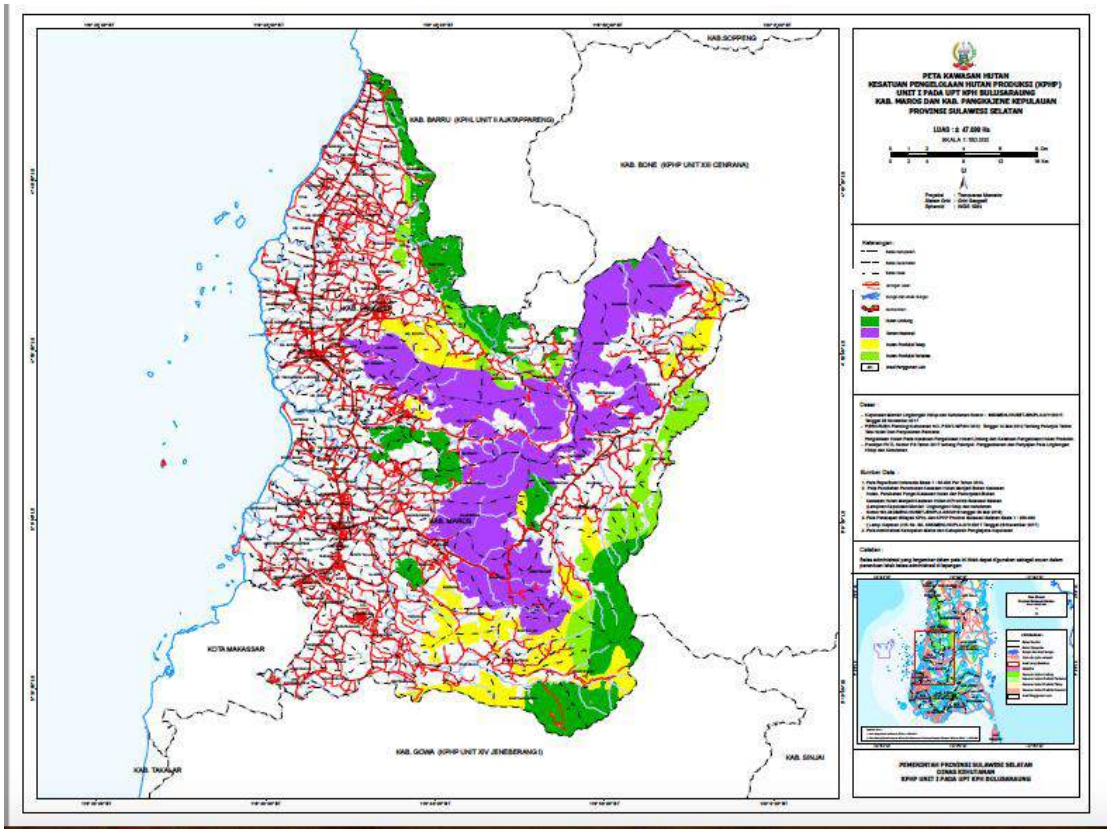


Figure Appendix 3. Forest Management Unit of Bulusaraung, Maros district, South Sulawesi.

References

BPS. 2020. Hasil Sensus Penduduk 2020. Badan Pusat Statistik dan Kementerian dalam Negeri. Jakarta. 12p.

BPS Maros. 2020. Maros Dalam Angka. Badan Pusat Statistik Kabupaten Maros. MarosSulawesi Selatan.

BPS Siak Hulu. 2018. Siak Hulu Dalam Angka. Badan Pusat Statistik Kabupaten Siak Hulu. Siak Hulu. Riau.

BPKH Wilayah VIII Denpasar. Tanpa tahun. Informasi Tahura Ngurah Rai. Kementerian Kehutanan. Bali.

Hasan K. 2014. Prospek pengembangan indutri kerajinan atap di Desa Kepau Jaa Kecamatan Siak Hulu Kabupaten Kampar. JOM Fekon Vol.1(1):1-20

KHDTK Kepau Jaya. *Tanpa tahun*. Deskripsi KHDTK Kepau Jaya. Balai Penelitian dan Pengembangan Teknologi Serat Tanaman Hutan. Kuok,

Lange, G., Q. Wodon and K. Carey (eds) (2018), *The Changing Wealth of Nations 2018: Building a Sustainable Future*, World Bank, Washington, DC, http://dx.doi.org/10.1596/978-1-4648-1046-6.

MoEF (2018a), *The State of Indonesia's Forests*, Ministry of Environment and Forestry, Jakarta.

MoEF (2018b), *Second Biennial Update Report under the United Nations Framework Convention on Climate Change*, Ministry of Environment and Forestry, Jakarta, https://unfccc.int/sites/default/files/resource/Indonesia-2nd_BUR.pdf.

OECD (2018b), *OECD Economic Surveys: Indonesia 2018*, OECD Publishing, Paris, https://dx.doi.org/10.1787/eco_surveys-idn-2018-en.

***Template for Procurement Plan**

[PLEASE ATTACH PROCUREMENT PLAN TO THE BUDGET TABLE IN PROJECT DOCUMENT]

Table x. Procurement Management Plan

Activity No.	Item	Unit	Unite Cost	Number	Total cost (USD)	Owner	Delivery Time	Remarks
-	-	-	-	-	-	-	-	-