Part I: Project Information

GEF ID
10731

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Strengthened Systems for Community-based Conservation of Forests and Peatland Landscapes in Indonesia (CoPLI)

Countries
Indonesia

Agency(ies)
IFAD

Other Executing Partner(s)
Ministry of Environment and Forestry (MoEF)

Executing Partner Type
Government

GEF Focal Area
Biodiversity

Sector
Mixed & Others

Taxonomy

Focal Areas, Land Degradation, Sustainable Land Management, Ecosystem Approach, Improved Soil and Water Management Techniques, Community-Based Natural Resource Management, Integrated and Cross-sectoral approach, Sustainable Fire Management, Sustainable Livelihoods, Land Degradation Neutrality, Land Cover and Land cover change, Carbon stocks above or below ground, Forest, Forest and Landscape Restoration, Climate Change, Climate Change Adaptation, Community-based adaptation, Ecosystem-based Adaptation, Livelihoods, Climate information, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Biodiversity, Biomes, Tropical Rain Forests, Rivers, Lakes, Wetlands, Protected Areas and Landscapes, Terrestrial Protected Areas, Productive Landscapes, Community Based Natural Resource Mngt, Mainstreaming, Forestry - Including HCVF and REDD+, Certification -National Standards, Ceritification - International Standards, Species, Threatened Species, Influencing models, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Transform policy and regulatory environments, Demonstrate innovative approache, Stakeholders, Indigenous Peoples, Private Sector, Large corporations, Individuals/Entrepreneurs, SMEs, Civil Society, Community Based Organization, Non-Governmental Organization, Local Communities, Communications, Awareness Raising, Education, Public Campaigns, Behavior change, Beneficiaries, Type of Engagement, Partnership, Participation, Information Dissemination, Consultation, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Gender results areas, Access and control over natural resources, Access to benefits and services, Participation and leadership, Capacity, Knowledge and Research, Knowledge Generation, Learning, Theory of change, Adaptive management, Indicators to measure change, Capacity Development, Innovation, Knowledge Exchange

Rio Markers

Climate Change Mitigation

Principal Objective 2

Climate Change Adaptation

Significant Objective 1

Biodiversity

Principal Objective 2

Land Degradation

Significant Objective 1

Submission Date

3/27/2023

Expected Implementation Start

1/1/2024

Expected Completion Date

6/30/2028

Duration

60In Months

Agency Fee($)

506,298.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
BD-1-1	Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors	GET	2,600,452.00	10,168,000.00
BD-2-7	Address direct drivers to protect habitats and species and improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate	GET	2,729,000.00	10,674,000.00
		Total Project Cost($)	**5,329,452.00**	**20,842,000.00**

B. Project description summary

Project Objective

To conserve biodiversity and enhance livelihoods through a strengthened institutional framework and community-based conservation of peatland ecosystems

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 1: Institutional framework for peatland and biodiversity conservation at national and provincial levels.	Technical Assistance	Outcome 1: Strengthened capacity and plans formulated and adopted, supported by additional resources for peatland protection and improved management at national level and targeted provinces.	Output 1.1: Increased capacity to implement RPPEG at national and sub-national level; Output 1.2 Increased engagement of different sectors and agencies at national level for peatland protection and management; Output 1.3. Strategy for mobilizing resources for protection and management of peatland ecosystems and RPPEG implementation developed and implemented; Output 1.4 Enhanced technical capacity and support for peatland assessment and RPPEG development and implementation	GET	860,000.00	3,820,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
			in West Kalimantan;			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 2: Community-based management and conservation of peatland systems in targeted landscapes.	Investment	Outcome 2: Improved protection and management of biodiversity in targeted peatland landscapes in partnership with local government, community and private sector	Output 2.1 Peatland and biodiversity protection and management in Danau Sentarum Peatland Landscape enhanced through government and community action; Output 2.2 Improved multi-stakeholder institutional arrangements and coordination in support of peatland and biodiversity protection and management in Gunung Palung-Sg Putri Peatland Landscape; and Output 2.3. Community-based conservation of peatlands promoted and scaled-up to	GET	3,597,452.00	13,880,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
			other provinces and landscapes			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 3: Knowledge exchange, communication and monitoring to support peatland protection and management.	Technical Assistance	Outcome 3: Enhanced knowledge exchange, communication and monitoring of peatland biodiversity	Output 3.1: Multi-stakeholder forum to support peatland protection and management; Output 3.2 Active knowledge exchange and communication programme at local, national and international levels on community-based peatland ecosystem protection and management; Output 3.3: Enhanced information system for monitoring of biodiversity in peatland ecosystems and RPPEG implementation; and Output 3.4: Monitoring and Evaluation	GET	622,000.00	1,942,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
			effectively implemented			
				Sub Total ($)	**5,079,452.00**	**19,642,000.00**
Project Management Cost (PMC)						
				GET	250,000.00	1,200,000.00
				Sub Total($)	**250,000.00**	**1,200,000.00**
				Total Project Cost($)	**5,329,452.00**	**20,842,000.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Environment and Forestry (MoEF)	In-kind	Recurrent expenditures	10,900,000.00
GEF Agency	IFAD*	Loans	Investment mobilized	5,500,000.00
Private Sector	Austindo Nusantara Jaya (ANJ) group** Bumitama Gunajaya Agro (BGA) group	In-kind	Recurrent expenditures	2,741,000.00
Donor Agency	IKI (Germany)***	Grant	Investment mobilized	1,300,000.00
Other	NGO ****	In-kind	Recurrent expenditures	401,000.00
			Total Co-Financing($)	**20,842,000.00**

Describe how any "Investment Mobilized" was identified

IFAD: *Co-funding from IFAD will include part of the TEKAD Loan; ANJ Group: **Co-funding from private sector is expected from two RSPO member companies in the Gunung Palung- Sg Putri Peatland landscape which have been supporting establishment of conservation areas and corridors to link Sungai Putri and Gunung Palung NP; IKI Germany: *** Cofunding through the IKI-financed SAGU project which is currently in the final approval stage; NGO: **** Cofunding in kind from others including support from NGOs active in the two peatland landscapes (Yayasan ASRI and YIARI); Total Co-financing: ***** The Project will aim to support the mobilization of further resources through Project output 1.3 which includes development of a Strategy for mobilizing resources for protection and management of peatland ecosystems.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation	5,329,452	506,298	5,835,750.00
			Total Grant Resources($)		**5,329,452.00**	**506,298.00**	**5,835,750.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
IFAD	GET	Indonesia	Biodiversity	BD STAR Allocation	150,000	14,250	**164,250.00**
				Total Project Costs($)	**150,000.00**	**14,250.00**	**164,250.00**

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
235,000.00	235,437.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
235,000.00	235,437.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
Danau Sentarum National Park	31725 9		235,000.00	127,393.00			127,393.00		
Gunung Palung National Park	20378			108,044.00			108,044.00		

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
800000.00	282000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
800,000.00	115,000.00		

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Type/Name of Third Party Certification

Third party certification(s): ISPO and/or RSPO DSPL: Consists of the designated protection zones of existing PHUs. GPPL: Consists of the designated protection zones of existing PHUs

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	167,000.00		

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted
GHG_Area_Revision version 2 (1)	
FAO_Peat-GHG-Tool_GEF_COPLI_revPAFP	

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	2902000	3270431	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	2,902,000	3,270,431		

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting		2024		
Duration of accounting		20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	8,000	1,600		
Male	12,000	1,600		
Total	20000	3200	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Footnote Core indicator 1: There are two National Parks included in this project: (i) Danau Sentarum National Park (127,393 ha) and (ii) Gunung Palung National Park (108,044 ha) based on the Ministry Decree in 2014. The figure for Core Indicator 1 represents the sum of the area of the two Parks that would benefit indirectly from project-supported capacity building activities and expected increase in management effectiveness as measured by their respective METTs. There may also be direct project supported benefits in the two NPs that will be determined in PY1. Footnote Core indicator 4: This is lower than the estimated area stated in the PIF (800,000ha) as the latter figure was based on inaccurate information compiled during preparation of the PIF ? based on certain (mis)assumptions on the location, size and nature of the landscape at the Danau Sentarum site. During the detailed design period, site visits and in-depth consultations with the national and provincial government together with an analysis of the land use in the legally designated peatland hydrological unit(s) and adjacent areas selected for the project. As a result, the area of landscapes under improved practices has been adjusted downwards to 282,000ha. Footnote Core indicator 6: The estimated GHG emission reduction has increased from 2,902,000 tCO2e to 3,270,431 tCO2e based on detailed analysis using information gathered during the design mission. (see Annex 8 of IFAD Project Design Report Document for more detail) Footnote Core indicator 11:Based on the estimated number of direct beneficiaries in the 16 villages to be supported through GEF financing for community grants and co-management activities in the DSPL and GPSPPL. It is anticipated that there would be on average 40 HH with direct support in each of the 16 villages with an average of five persons per household. It is estimated that women and girls represent 50% of the beneficiaries. Indigenous peoples are estimated as 40% of targeted households based on the proportion of Indigenous villages

Part II. Project Justification

1a. Project Description

Several changes have been made in project design from that provided in the PIF in response to recommendations from the STAP and other reviewers in particular with respect to Component 1. Moreover, there has been considerable additional detail provided generated from the field mission in support of project preparation that has informed more detailed project design. As a result, a full project description has been provided below. There has also been an adjustment in the project?s target contribution to the GEF7 core indicators with a decrease in the area of the landscapes under improved practices and also in the number of direct beneficiaries, but an increase in the estimated GHG emission reduction as described in notes 2, 3 and 4 to the table on core indicators in section 1E above.

1a. *Project Description*.

Baseline Scenario. The Directorate General for Pollution and Land Degradation Control and its Directorate for Peatland Degradation Control (the project manager for the Project), have been recipients of past capacity building support some of it through GEF resources. This support has resulted in a number of concrete measures that have addressed the major and increasingly complex threats and barriers faced today to achieving sustainable peatland management in Indonesia; measures that in aggregate have contributed to an evolving institutional approach to sustainable peatlands management. At present, MoEF is promoting the rolling out of RPPEG from the national to provincial/district levels which represents an opportunity for CoPLI to promote the development of such a model for the implementation of similar activities in other provinces/districts. However, the National Plan for Protection and Management of Peatland Ecosystems (RPPEG) has focused on the overall mapping, zoning and management framework for peatland ecosystems in the country as well as water management and fire prevention. There has been less focus on biodiversity assessment and conservation as that is the primary responsibility of the Directorate General for

In addition to strengthening of the existing regulatory framework, there is also much to be done on the ground with local communities. A significant percentage of peatland area in Indonesia is found in the country?s community areas (non-concession areas)[1]1. However, while having been made aware of the importance of peatlands and in some cases received training in management principles, these communities are not well equipped to manage and protect peatlands and forests due to lack of empowerment, capacity, knowledge and limited support from related stakeholders. Moreover, the recent push for conservation of peatland forest is placing an increased burden on local villages to sustain their livelihoods and cultural practices in the short term. It is therefore important not only to assess the environmental benefits from peatland forest conservation and restoration, but to also provide local communities with sustainable peatland-based economic activities.

Moving towards strengthened systems for community-based conservation of forests and peatlands requires close coordination with other key stakeholders in particular the private sector given the

significant presence of palm oil concessions in the peatland landscapes. This will require coordination among and engagement with multiple stakeholders from the local levels within the landscapes to the provincial and national levels, including community, private sector plantation companies, NGOs, CSOs, research institutions, etc. (see section 2 below and Annexes 4 and 5 in IFAD?s Project Design Report on stakeholders for further details).

West Kalimantan (WK) is one of Indonesia?s three provinces that is characterized by the largest expanse of peatland and associated forest ecosystems in the country. These lowland ecosystems are comprised of mangrove, freshwater swamp, peat swamp, dryland dipterocarp and heath forests. In terms of the use of crop wild relatives (CWR) in crop improvement, Gunung Palung National Park is marked as no. 6 among the top 11 complimentary grids whereas Danau Sentarum National Park is considered as part of the other complimentary grids. With respect to complimentary protected areas for the conservation of genetic resources in Indonesia, Gunung Palung NP is ranked 2, while DSNP is ranked 6. West Kalimantan is considered to be among the highest Priority areas for further ex-situ collecting programs of priority CWR in Indonesia. While much of the area has been exploited for timber and converted into oil palm plantations and agriculture, West Kalimantan supports several relatively intact peatland landscapes of global importance. While these landscapes contain some protected areas - there are large areas of intact peatland and forest outside of the formal protected areas. In terms of one of the flagship species - *orangutan* - more than 70% of the population is found outside of protected area boundaries. In addition, many of these broader landscapes are being impacted by development particularly through fragmentation caused by the building of new roads and other infrastructure. The two selected project landscapes are the Danau Sentarum Peatland Landscape (DSPL) in Kapuas Hulu district in the northeast of West Kalimantan and the Gunung Palung - Sungai Putri Peatland Landscape (GPSPPL) shared between Ketapang and Kayong Utara Districts in Southwest of West Kalimantan (see Maps in section 1b, below). These are described further below:

Danau Sentarum Peatland Landscape (DSPL). The DSPL covers about 248,632 ha and consists of peatlands, wetlands, lakes and forests, as well as settlements and plantations located in the floodplain of the upper Kapuas River in West Kalimantan Province. It consists of a series of large peatlands in an inland basin in the Upper Kapuas River about 1,000 km upstream from the coast. The peatlands in this basin are mainly inland domed (ombrogenous) peat swamp forest believed to be the oldest peatlands in the tropics having started forming nearly 50,000 years ago. The peatlands are currently in quite good condition and are largely forested and of great importance for biodiversity conservation. In the lower portion of the landscape is Danau Sentarum, one of the largest lake systems in Indonesia covering about 100,000 ha comprising a network of interconnected seasonal lakes, interspersed with freshwater and peat swamp forest and dry lowland forest on isolated hills.

Danau Sentarum National Park (DSNP) is the largest wetland conservation area in Indonesia covering 127.393 hectares, which is located in the floodplain of the upper Kapuas River in West Kalimantan Province. It is located between 0?45?- 01?02? N, and 111? 57?- 112? 20? E, and covers five sub-districts namely Badau, Batang Lupar, Suhaid, Selimbau, and Jongkong, 12 urban villages/kelurahan and 45 villages/desa. The Park consists of a series of interconnected seasonal lakes, interspersed with swamp forest, inland ombrogenous (receiving water and nutrients only through precipitation) peat swamp forest, and dry lowland forest on isolated hills. DNSP is part of Heart of Borneo (HoB) initiated

by regional countries (Indonesia, Malaysia and Brunei Darussalam). DSPL is administratively located within the Regency (district) of Kapuas Hulu and the population density in DPSL to be 4 persons/ km2.

DSNP is a hotspot for endemism of wetland flora and fauna and is one of the most important areas on Borneo in terms of biodiversity, supporting not only many diverse species but also a high degree of endemism and important populations of threatened species. The Park is home to globally important biodiversity species, including the largest inland population of endangered proboscis monkeys *Nasalis larvatus,* orangutan *Pongo* pygmaeus, sun bear *Helarctos malayanus,* clouded leopard *Neofelis nebulosa,* bay cat *Catopuma badia,* smooth-coated otter *Lutra perspicillata*, and otter civet *Cynogale bennettii*. Other important species include crocodiles, such as the rare and vulnerable false gharial *Tomistoma schlegelii*, the estuarine crocodile *Crocodylus porosus*. Eleven turtle and tortoise species have also been recorded in DSNP, including the endangered keeled box turtle *Cuora mouhotii,* the vulnerable Asian softshell turtle *Amyda (Trionyx) cartilaginea,* vulnerable Asian giant softshell turtle *Pelochelys bibroni,* endangered Asian brown/forest tortoise *Manouria emys,* vulnerable black marsh turtle *Siebenrockiella crassicollis*, endangered spiny turtle/spiny terrapin *Heosemys spinosa,* and the vulnerable rice field/Malayan snail-eating turtle *Malayemys subtrijuga*.

DSNP is also rich in fish diversity. There are 212 fish species identified in and around the Park, including 11 species new to science (*Akysis fuscus*, *Betta enisae*, *B. pinguis*, *Gastromyzon embalohensis*, *Homaloptera yuwonoi*, *Hyalobagrus leiacanthus*, *Osteochilus partilineatus*, *Parachela cyanea*, *Puntius trifasciatus*, *Rasbora tuberculata*, *Sundasalanx platyrhynchus*), while a further nine additional species are either new or require further study before their identity can be cleared. It also includes the rare and valuable red variety of the endangered Asian arowana *Scleropages formosus* and the clown loach *Botia macracanthus,* known from only several localities in Kalimantan and Sumatra.

Further, there are more than 500 plant species recorded at DSNP. The Park harbors many interesting plant species, such as the unusual tree *Dichilanthe borneensis,* which was collected at DSNP in 1867 and is not found elsewhere. This unique species represents a link between the coffee family (Rubiaceae) and the figwort family (Scrophulariaceae), incorporating characteristics from both families. A new species of *Rhodoleia* collected in 1993 belongs to the witch-hazel family (Hamamelidaceae), a family poorly represented in Asia, with only seven genera occurring in Southeast Asia, each represented by only one species. Other rare species include the small tree *Dicoelia beccariana*, the sedge *Hypolytrum capitulatum,* the stemless palm *Eugeissona ambigua*, and the rattan *Plectocomiopsis triquetra.*

DSNP is facing a number of threats, including fires, habitat conversion along the periphery, and over-exploitation of resources. The Park has a long history of fires which appears to be increasing in frequency since 1990, mainly caused by human interventions. There is still a rapid rate of land use change in the upper Kapuas region (mainly for oil palm plantation development purpose) which contributes to pollution and significant hydrological changes at the Park over the past decade, as well as habitat conversion along the periphery. The rapid water fluctuation due to hydrological changes not only disturbs seasonal fishing activities but also jeopardizes fish reproduction. Finally, the over-exploitation of resources has affected the natural resource base to have been steadily eroding, with fish catches declining and tall forest area dwindling. Among the many complex reasons contributing to this

state is a steady development of adjacent areas (buffer zones) from large-scale logging and plantation companies.

Most of the peatlands in the DSPL are in forest management areas, designated as protection forest (*Hutan Lindung*) or production forest, but about 30,000 ha are in DSNP. There are more than 10 villages in the National Park with a collective population of more than 10,000 people who are mainly engaged in fishing activities. The main threats to the peat swamp forests include clearance and drainage for conversion to oil palm or agriculture, fires and high levels of logging for construction materials for the many villages in the landscape. Overfishing and pollution from the villages in the lake system are also a significant challenge. There are also significant knowledge gaps ? for example the peatlands in the landscape are not well assessed and delineated and there appear to be significant peatland areas outside the currently designated PHUs. The National Park and Forest Management Unit (FMU) also do not have a clear understanding of the nature and management requirements of peatlands under their responsibility.

Gunung Palung-Sg Putri Peatland Landscape (GPSPPL). The area of GPSPPL is 309,550 ha which is dominated by the Gunung Palung National Park (108,044 ha) and the Gunung Tarak Protected Forest (32,000 ha) which forms an ecological corridor linking the park to the Sungai Putri Peatlands to the south and has been designated as an Essential Ecosystem Area (Kawasan Ekosistem Esensial/KEE). The KEE Orangutan Corridor[2][2] in Sungai Putri - Gunung Tarak - Gunung Palung Landscape covers an area of 1,800 hectares and was designated as conservation area through the West Kalimantan Governor Decree No.718/Dishut/2017.

GPNP and the surrounding areas represent one of the most important blocks of orangutan habitat with one of the most viable remaining populations of orangutans in Borneo, and the world. GPNP is also a United Nations Great Ape Survival Project conservation priority area. It is home to an estimated 2,500 Central Bornean orangutans (*Pongo pygmaeus wurmbii)*, which represent approximately 14% of the remaining wild population of this subspecies, and the third largest population in West Kalimantan Province. The Sungai Putri peatland is one of the largest remaining peat swamp forests in Northern Ketapang and is connected to GPNP by a narrow forest corridor. The population living in the unprotected areas outside the park especially the Sungai Putri Peatland, located south of GPNP is estimated to be almost equal in size.

It is also important habitat for other species of global biodiversity significance, including the Malay sunbear (*Helarctos malayanus euryspilus*), white-handed gibbon (*Hylobates albibarbis*), proboscis monkey (*Nasalis larvatus*), Sunda pangolin (*Manis javanica*), and Horsfield?s tarsier (*Tarsius bancanus*). Among the other animals commonly found in GPNP are the orangutan (*Pongo satyrus*), helmeted hornbill (*Rhinoplax vigil*), four-striped ground squirrel (Lariscus hosei), barking deer (Muntiacus muntjak pleiharicus), pig-tailed macaque (Macaca nemestrina nemestrina), slow loris (*Nyticebus coucang borneanus*), Muellers Bornean grey gibbon (*Hylobates muelleri*), banded leaf monkey (Presbytis femoralis chrysomelas), larger Malay mouse deer (Tragulus napu borneanus), rhinoceros hornbill (*Buceros rhinoceros borneoensis*), blue-banded pitta (*Pitta baudii*), red junglefowl (*Gallus gallus*), siamese crocodile (Crocodylus siamensis), Malayan giant turtle (*Orlitia borneensis*),

and loggerhead turtle (*Carreta carretta*). In addition, canary squirrels (*Rheithrosciurus macrotis*) are endangered and very rarely seen[3][3].

GPNP is comprised of a diverse flora representing nearly every type of vegetation in Borneo, including beach and mangrove forests, peat and freshwater swamp forests, and is the only national park in Indonesian Borneo with relatively intact endangered lowland dipterocarp forests. Tree species present in GPNP include jelutung (*Dyera costulata*), ramin (*Gonystylus bancanus*), damar (*Agathis borneensis*), pulai (*Alstonia scholaris*), rengas (*Gluta renghas*), kayu ulin (*Eusideroxylon zwageri*), *Bruguiera* sp., *Lumnitzera* sp., *Rhizophora* sp., *Sonneratia* sp., *Ficus spp*, and medicinal plants. The unique black orchid (*Coelogyne pandurata*), can be seen in GPNP, on the Matan river, in particular from February to April. The attraction of the black orchid lies in the shape of its flower, which is marked by green with black spots in the centre. The blooms last for five to six days. 190 species of bird have been recorded and 35 species of mammals, which play an important role in dispersing seeds throughout the forest. Most of the species of bird in Kalimantan can be found in GPNP[4][4].

GPSPPL is within Kayong Utara Regency and Ketapang District. In terms of land area, GPSPPL is around 3,096 km2 or 2.1% of the province and 8.6% of the two regencies. With respect to population density, the population of GPSPPL is estimated in the 2021 Management Plan, was derived from the population at Sub-District level as compared to DSPL that was generated at the village level in 2015. Population density for the GPSPPL[5][5] is 19.8 persons/ km2.

The area is affected by illegal logging, clearing and fragmentation of forests and peatlands in adjacent areas as well as forest fires. More than 70% of the lowland forests within the park's 10 km buffer zone around the outer perimeter of GPNP were deforested between 1988 and 2002. Poverty and a lack of access to affordable health care have left local people with few choices of livelihoods and many turned to logging (Curran et al. 2004[6][6]). With deforestation within GPNP as well as in its surrounding 10 km buffer, of which >70% is comprised of concessions and oil palm plantations like PT Kayung Agro Lestari, or PT Gemilang Makmur Subur, as well as bauxite mining company PT Laman Mining[7][7], conservation outside of the park is increasingly as important as within its boundaries (Power 2018[8][8]). A study found that in GPNP illegal loggers extracted on average 7 trees/ha (range 0?30 trees/ha) and that the most frequently harvested species were *Gonystylus bancanus* and *Dyera lowii*, and most harvested trees had diameters of 30?70 cm (Felton et al. 2003). The rate of illegal logging has increased in this area since the time of the study and has now even affected large sections of GPNP. The area surrounding the forest is being developed mainly for oil palm, but there is significant potential to work with the neighboring private sectors oil palm companies and also local communities to ensure connectivity of forested areas and high conservation value areas through conservation corridors, for biodiversity conservation and protection.

While large portions of the northern part of the landscape is protected within the GPNP, there is limited formal protection status on the southern part of the landscape. While initiatives have been made by NGOs, as well as two private sector oil palm plantations, to protect portions of the landscape outside of

the GPNP ? by creating community forests as well as conservation areas within the boundary of existing plantations and logging concessions, these areas are still impacted by drainage, fire, logging and mining. In addition, significant parts of the landscape are in production forests (*hutan produksi*) and conversion forests (*hutan produksi konversi*) which may be logged, cleared or converted to other land uses. Unless an integrated approach is taken to link together all these separate portions of the landscape ? it will become more fragmented and vulnerable to fire or degradation in the future.

Based on the results of the National Socio-Economic Survey (Susenas) conducted by BPS, the number of West Kalimantan residents living below the line poverty recorded is still quite large at around 367,000 people or approximately 7.17% in 2020. The study concludes that the quality of economic growth in West Kalimantan must be further improved by focusing on the poor (pro poor). Growth focused on the poor is expected to reduce poverty. Inflation control must be done to maintain people's purchasing power so that household consumption can grow. Household consumption is one of the main sources of economic growth in West Kalimantan. Investment is further enhanced in West Kalimantan by facilitating licensing for investment because with so much investment it will absorb labor. With a lot of absorption of labor will increase productivity and ultimately can increase economic growth.[9][9]

Regencies and subdistricts within the DSPL landscape, Ketapang and Kupuas Hulu, have a total population of 824,397 (BPS, 2021), with 52% male (427,416) and 48% female (396,981) populations. It is estimated that the number of households in the landscape area is around 2,413 with more or less 10,000 people (Danau Sentarum National Park Management Plan 2018-2027). During the months of June to August, the population temporarily surges by about 20%, due to relatives visiting and staying from other Kapuas River towns for the fishing season [10][10]

Good Agriculture Practice: the Dayak agroforestry system practiced on the periphery of DSNP has resulted in a mosaic of habitats, consisting of slash and burn patches (often in various stages of regrowth) and forest areas preserved for various purposes. The latter may be preserved for religious purposes, an abundance of honey trees, unfavorable soils conditions (e.g. many boulders), or an abundance of fruit trees industries12. The existence of these people is reflected in the forest through oral history, traditional knowledge and well-defined and detailed customary tenure regimes by which all indigenous peoples delineate their traditional territories. In relation to forest management, customary laws are designed and enforced to ensure sustainability and communal well-being. These customary forest laws commonly govern ownership (individual, collective, communal), designation (forest use) and other aspects related to human interaction with forests. That is why, under customary laws, forests have been free from outside intervention, including from local and regional businesses

Ecosystems

In 2001, West Kalimantan (also Kalimantan Barat) had 6.88 M ha of primary forest, extending over 47% of its land area. From 2002 to 2020, Kalimantan Barat lost 1.25 M ha of primary forest, making up 36% of its total tree cover loss in the same time period. Total area of primary forest in West Kalimantan decreased by 18% in this time period. The total loss within the natural forest was equivalent to 710 Mt of CO2 emissions.[11][11] In West Kalimantan , the peak fire season typically

begins in mid-July and lasts around 14 weeks. There were 343 fire alerts reported between 19th of April 2021 and 11th of April 2022 considering high confidence alerts only. Most of the hotspots are located in the western most portion of Kalimantan Barat.

Danau Sentarum Peatland Landscape. The DSPL consists of a series of interconnected seasonal lakes, interspersed with swamp forest, inland ombrogenous peat swamp forest, and dry lowland forest on isolated hills. Per the GEF-7 PIF 2020, DSNP is a hotspot for endemism of wetland flora and fauna and is one of the most important areas in Borneo in terms of biodiversity, supporting not only many diverse species but also a high degree of endemism and important populations of threatened species. The basin is a vast floodplain, consisting of about 20 seasonal lakes, freshwater swamp forests and peat swamp forests which local people call *Lebak lebung* (floodplain).[12][12] It includes dry lowland, swamp, peat swamp, lakes, and river ecosystems and is the largest flooded tropical forest ecosystem in Southeast Asia (USAID, 2010). Water quality of the aquatic environment of the Sentarum lakes area is relatively good for aquatic biota except that at the Seriang station. Oxygen concentration of nearly zero was found at the lake bottom[13][13]. The topography of Kapuas Hulu Basin encompasses plain, hill and mountainous area, with elevation ranging from 30 ? 2000 m above sea level[14][14].

There are 12 ecosystems or land cover / land use units identified in the DSPL. Some remained stable due to inaccessibility (e.g. primary forest in the interior of the Park), the rest have been in decline albeit in varied stages due to land conversion. Illegal logging and poaching of wildlife contributed to the forest degradation and deforestation. These 12 ecosystems are primary forest, secondary forest, secondary swamp forest, shrubland, plantation, bare land, water body, swamp shrub, agricultural land, mixed agricultural land, mining area and swamp.

The presence of mining believed to have contributed to the pollution of the waterways of the DSPL by mercury and also the use of poison in fishing. Tanjungpura University in their survey have shown that the fish in the areas (lais, belidak, toman, gabus and baung) were already contaminated and no longer safe to consume.[15][15] Another source of pollution is fishing by poison. This occurs in Kapuas Hulu area. Besides causing loss of fish population, poison fishing has also caused diseases such as diarrhea for the people. In West Kalimantan, the land of Dayak is ranked number 4 with 717 polluted villages based on data from the statistics agency in 2014. It is strongly suggested that the pollution is shared by heavy expansion of oil palm. As indicated by academic research, river water pollution in oil palm area is caused by waste composed by high concentration of POME (palm oil mill effluent), a polluted mix of organic matter, water and fat residues[16][16]

Gunung Palung-Sungai Putri Peatlands. The GPNP and adjacent peatlands is comprised of a diverse flora representing nearly every type of vegetation in Borneo, including beach and mangrove forests, peat and freshwater swamp forests and is the only national park in Indonesian Borneo with relatively intact endangered lowland dipterocarp forests. It is an important habitat for other species of global biodiversity significance such as the orangutan. The area is affected by illegal logging, clearing and fragmentation of forests and peatlands in adjacent areas as well as forest fires. As acknowledged in the

GEF-7 PIF (2020), poverty and a lack of access to affordable health care left local people with few choices of livelihoods and many turned to logging.

In Kayong Utara, where GPNP is located, it had 93.8M ha of primary forest extending over 50% of its land area in 2001. In 2020, it lost 270K ha of primary forest equivalent to 208Mt of CO2 emissions. From 2002 to 2020, Kayong Utara lost 70.4K ha of humid primary forest making up 62% of its total tree cover loss in the same time period. From 2013 to 2020, 77% of tree cover loss in Kayong Utara occurred within natural forest. The total loss within the natural forest was equivalent to 19.5Mt of CO2 emissions (Global Forest watch, accessed April 2022).

GPNP, or TANAGUPA, previously had a total land area of 90,000 has but was adjusted in size to become 108,044 ha (GPNP Mgt Plan 2022-2031). This change was due to the management zones of the Park, especially the traditional and special zones, being adjusted to conform to current social, policy and environmental conditions. In addition, the Ministry of Environment and Forestry came out with a new strategic plan as well as regional develop plans for 2022 ? 2024, which the GPNP has to conform with (GPNP 2022-2031). Deforestation in Gunung Palung National Park was due to illegal logging and forest fires as a result of El Ni?o influence. There was an insignificant deforestation in Gunung Palung National Park in the period of 2016 ? 2018. From 1999 to 2004, approximately 38% of the forest have been deforested.[17][17]

The fire that occurred due to El Ni?o caused the loss of 1,914 has of primary forest or 1.7% of the total area of GPNP. The GPNP has lost as much as 10% of its primary forest or that remains is 97,148 ha. The forest area decreased from 72,684 has in 1997 to 69,851 ha in 2018. As of this writing, the primary forest cover is in stable condition. Secondary forest has reached 25,050 ha or 26% of the total land area of GPNP[18][18]. Analysis has indicated that past efforts for rehabilitation of degraded forest in GPNP was not successful. [19][19] The study showered that of 5000 ha replanted between 2009-2018 there was only a 1% success rate. The main reasons identified were i) no investment in fire prevention in replanting areas; ii) lack of post planting maintenance; iii) low price paid for seedlings (poor seedling quality). It is clear that new approaches are needed for forest rehabilitation in the landscape.

14 ecosystem types have been identified in GPSPPL [20][20]- that are montane forest, peat swamp forest, lowland forest, mangrove forest, secondary lowland forest, secondary montane forest, secondary peat swamp forest, second-growth lowland forest, forest gardens, gardens, agriculture, settlement, degraded forest, and scrub land / open land. These ecosystems are in different stages of decline. The primary forest is reported to be in stable condition due to inaccessibility to illegal loggers and because the local people hold spiritual beliefs that inhibits them from taking forest resources. Some ecosystem types such as the secondary forest and secondary swamp forest are in rapid decline since they are nearer to populated areas. Shrublands in peatlands were converted into plantations and agricultural lands. ?Change in landscape occurs through the entry of the invasive species *Bellucia pentamera*. This invasive species has occupied much of the deforested areas in the Park[21][21]. In addition, Fawzi, etal

(2020) noted that open lands in the Park and buffer zones are occupied by the Cogon Grass (*Imperata cylindrica*), also an invasive species.

Biodiversity (BD)

Danau Sentarum Peatland Landscape (DSPL)

Lake Sentarum, as a lotic ecosystem, consists of small and large lakes, peat swamp forest, and freshwater swamp forest forming a vast natural reservoir. Its open water area can reach a maximum area of about 1,000 km2 that can store about 3 billion m3 of water (Hidayat et al., 2017). During the long dry season, most of the lakes are dry, while during the rainy season the wetlands of the Sentarum lakes area are inundated forming a large shallow lake. (H. Hidayat et.al. 2020). Lake Santarum is dominated by a marked fluctuation in water levels of the lakes and streams. During the highest tide, the lakes? depth can go from 6 to 8 meters. The waters in LSNP are reddish-brown due to the high level of tannin from the decomposing leaves and branches of various trees. The unique water condition and the annual cycle of rising and falling water levels dominate the ecosystem and exert a strong influence on the lives of its people, plants and animals Water level records [22][22] show that the Sentarum floodplain lakes have two peaks of inundation period following the bimodal pattern of rainfall in the equatorial Kapuas catchment. This water level dynamics induced changes in water quality, nutrient availability, vegetation cover, and fish diversity found in the Sentarum lakes area. Despite its seasonal changes, water quality of Sentarum lakes is generally good and suitable for aquatic biota. Fish diversity of the Sentarum lakes is relatively higher during high water periods [23][23]

Fire is used regularly in a controlled manner as part of the swidden agriculture system. However, increased logging activities, both legal and illegal, are now damaging the forest in such a way as to make them more prone to fires. Opening up of the forest canopy is leading to a general drying out of the forest. The establishment of the oil palm plantation is also a cause for concern [24][24]

The Lowland Dipterocarp Forest which is the largest portion of the Biosphere reserve combing DSNP and Betung Kerihun National Park has a high diversity of tree species and generally from the genera *Dipterocarpus, Dryobalanops, Hopea, Parashorea, Shorea, and Vatica*. There are 695 tree species belonging to 15 genera, and 63 families of which 50 species are endemic to Borneo Island[25][25]. An example is *Amyxa pluricormis* which is a relative of Agarwood (Aquilaria spp.). It is not only endemic to Borneo, but is also a single clan. This high plant diversity is also seen in the number of species in each plant family. Dipterocarpaceae, for example, has the largest number of species, namely 121 out of a total of 267 species which grows in Borneo. The *Shorea* genera is represented in GPNP by more than 30 species. Other plants that have a large number of species are Euphorbiaceae (73), Clusiaceae (33), Burseraceae (30), Myristicaceae (28), and Myrtaceae (28) (DSNP Mgt Plan 2016-2025).

Mammalian Diversity: The national park is known to have the largest remaining populations of orangutans (Pongo pygmaeus) and is also considered to have the largest inland population of proboscis monkey (Nasalis larvatus) on the entire Borneo Island. The two families of apes are among 23 endemic

fauna that make up 147 mammal species found in the Lake Sentarum National Park. The mammal diversity in the national park contribute 29 percent to the 515 variety of mammals found in Indonesia which is regarded as the largest in the world.[26][26]

Data for 2000 shows no less than 48 species of mammals found in TNBK (TNBK 2000 cited by DSNP Mgt Plan 2016-2025). Among the species of mammals are the clouded leopard (*Neofelis nebulosa*), Jungle cat (Felis bengalensis), sun bear (*Helarctos malayanus*), deer (*Muntiacus muntjak*), golden deer (*Muntiacus atherodes*), deer sambar (*Cervus sp.*) and mouse deer (*Tragulus napu*). In BKNP, it has at least 18 species of bat (*Chiroptera*) and 17 species of rodent (DSNP Mgt Plan 2016-2025).

Squirrels (*Sciuridae*), active during the day, are often seen in the canopy of trees or even on the forest floor. Some of the species recorded are *Callosciurus prevosii sbsp, Ratufa affinis coturnata, Ratufa affinis sandakanensis, Nannosciurus melanotisand Reithrosciurus macrotis* (DSNP Mgt Plan 2016-2025). There are at least 7 species of primates found in BKNP: Orangutan (*Pongo pygmaeus pygmaeus*), Kelampiau (*Hylobates muelleri*), Hout (*Presbytis frontata*), Classi (*Presbytis rubicunda*), Beruk (*Macaca nemestrina*), Long tailed Macaque (*Macaca fascicularis*) and Tarsier (*Tarsius bancanus*) (DSNP Mgt Plan 2016-2025).

Fish Diversity: The lakes in Danau Sentarum National Park are remarkable for their fish diversity. 240-266 fish species have been identified, including 12-26 new to science. As the lakes measure only 25,000 hectares, this diversity is remarkable when compared to Europe, where a total of only 195 primary freshwater fish are known. In fact, Lake Sentarum harbors one of the world's most diverse fish fauna of any floodplain lake system. DSNP is also the home for two highly popular aquarium fish: the rare and valuable red variety of the endangered asian arowana (*Scleropaged legendrei*) and the clown loach botia or tiger botia (*Chromobotia macracanthus*). The latter is known only to live at Danau Sentarum and several locations in Jambi, Sumatra[27][27].

Gunung PalungSungai Putri Peatand Landscape (GPSPL)

The Gunung Palung National Park area is composed of various types of ecosystem. Cannon and Leighton (2004 cited in GPNP Mgt Plan 2022-2031) described the region of TANAGUPA as a collection of low mountains in coastal areas surrounded by swamp forest, peat and mangrove. Based on zoning of the 2019 Gunung Palung National Park Hall as cited in the GPNP Mgt Plan 2022-2031, there are 7 types of ecosystems that make up the TANAGUPA area (Figure 1) which consists of: Sub Alpine Rainforest, Mountain Rainforest, Lowland Rainforest, Alluvial Soil Forest, Peat Forest, Mangrove Forest, and the Rheofite Vegetation (GPNP Mgt Plan 2022-2031).

Mountain Rainforest: Mountain rainforests are scattered on the lower hills or slopes of Mount Palung and Mount Panti, the Peak of Mount Seberuang, Hunchback Mountain, Tedong Hole, Mount Sedahan and Mount Pekajang, among others. This ecosystem is also known as montane forest located at an altitude of 400 - 800 masl. The flora of this forest formation includes maang wood (*Hopea ferrugenia), tengkuang (Shorea sp.), and prairie star (Callophyllum grandifloris*). The trees here reach a height of up to 60 m with up to 80 cm in diameter (GPNP Mgt Plan (2022-2031). While, Lowland Rainforest or Lowland Tropical Forests are found on mountain slopes. The vegetation is dominated by the types of

Medang and meranti, which also occupies Stratification A in the forest canopy classification of Indonesia. Trees, especially those on the river banks tend to have smaller diameters than the trees located away from the river (GPNP Mgt Plan (2022-2031). Peat Swamp Forest is located in the area bordering the alluvial forest ecosystem. Inside this forest has the potential products of wood and non-wood species either in the form of fruit or undergrowth that can be traditionally used by the community. Existing woody vegetation includes Ramin (*Gonystylus bancanus*). Swamp forests have basin areas that can be considered as oligotropic freshwater swamp forest and or eutrophic freshwater swamp forest . The types of tree vegetation that thrive here include jelutung (*Dyera sp*.) (GPNP Mgt Plan)

Flora Diversity: Similar to other forests in West Kalimantan, Gunung Palung National Park has diverse flora including: jelutung *(Dyera costulata), ramin (Gonystylus bancanus), damar (Agathis borneensis), pulai (Alstonia scholaris), rengas (Gluta renghas), Ulin woods (Eusideroxylon zwageri), Bruguiera sp. Lumnitzera sp. Rhizophora sp. Sonneratia sp*, the strangler fig, and many herbal plants. The special flowers found in this national park are the exotic black orchids (*Coelogyne pandurate*).[28][28]

There are approximately 3,500 ? 4,000 species of woody plants in GPNP. (Setiawan and Sofian 2018 cited by Fawzi, Wibawanto and Purba. 2020) *Baccaurea motlyana* fruits are food of the orangutan (Gunung Palung National Park. 2018). *Ficus sub-genus urostigma , F. consciata Bl, F. stupenda Miq. and F. xylophylla Wall ex M., F. stupendaa, F. subtecta* as banyans with aerial roots that reach the ground also bear fruits that serve as food for different animals (Gunung Palung National Park, 2018).

Leighton (1990) indicated that there are at least 3,500 species of woody plants growing in the Gunung Palung National Park (Taman Nasional Gunung Palung = TANAGUPA). On the west side of Gunung Palung, as many as 325 tree species divided into 50 plant families in only 4.4 Ha of research area were recorded. [29][29]The TANAGUPA area is rich in pitcher plants and orchids (GPNP Mgt Plan 2022-2031). Three of the eight species of pitcher plants are protected species in TANAGUPA. These are the *Nepenthes bicalcarata, N. albomarginata and N. hirsuta.* Tree species that are protected, among others, are the damar pilau (*Agathis borneensis*), ironwood *(Eusideroxylon zwageri), kempas wood raja (Koompassia excelsa) and large dungun (Heritiera globosa*). Unique and rare orchids found outside the area are, among others, black orchids (*Coelogyne pandurate*), emerald orchid (*Dendrobium macrophyllum*) and sugarcane orchid (*Grammatophyllum speciosum*). TANAGUPA area too is a habitat for endangered species of flora based on IUCN such as tengkawang (*Shorea stenoptera*) and ramin (*Gonystylus bancanus*). The high diversity of flora in the TANAGUPA provide opportunities for researchers to discover new species. As an example, Cannon and Manos (2000) as cited in the GPNP Mgt Plan 2022-2031, found *Lithocarpus tulungensis* while Ashton, P.S., (2015) described the species *Vatica palongensis* (GPNP Mgt Plan 2022-2031).

Fauna Diversity is also rich in faunal biodiversity. At least 206 bird species (Laman, T.G. 1996), 133 species of mammals (Blundell, A.G. 1996) and 16 species of reptiles were recorded in the TANAGUPA (GPNP Mgt Plan 2022-2031). It is estimated by Johnson et.al. (2005) that 2,500 individuals of orangutan are in Gunung Palung (Johnson, et.al. 2005). Primate species are threatened to extinction according to the IUCN and protected by virtue of PerMenLHK No. 92 Years 2018 in the TANAGUPA area, including Orangutan (*Pongo pygmaeus wurmbii*), Proboscis monkey (*Nasalis*

larvatus), lempia (*Hylobates albibarbis*) and tarsier (*Tarsius bancanus).* Bornean orangutans who are categorized as Critically Endangered by the IUCN have still good population in the TANAGUPA area (GPNP Mgt Plan 2022-2031).

The Palung Foundation inventory of 2020 and 2021 found out that the Orangutan population in TANAGUPA is 2,440 individuals. Rijksen and Meijaard (1999) estimated that when compared to population levels at the beginning of the 20th century, no more than 14% of the Sumatran orangutan population, and a mere 7% of the Bornean population remain today ? less than 27,000 individuals, and by some estimate half of that remain in the wild (Rijksen and Meijaard, 1999 cited by Johnson et.al. 2005). Population of proboscis monkeys in the Matan-Batu Barat River in 2021 was 388. The population density of the Bornean White Bearded Gibbon (*Hylobates albibarbis)* in TANAGUPA (Marshal, A., 2004) is from 0.44 individuals/km2 in mountain forests up to 10.27 individuals/km2 in plain sandy lowland forests (GPNP Mgt Plan 2022-2031).

Climate trends and impacts

The Rahadi Oesman Ketapang Meteorological Station recordings show that the temperature range that occurred over the last five years was from 22.3 C to 34.7 degrees C (MTDP Ketapang 2021-2026). Rainfall in Kalimantan is affected by the El Ni?o and Southern Oscillation (ENSO).[30][30]

Gunung Palung National Park is mostly in the wettest agro-climate zone in Kalimantan. The Schmidt and Ferguson classification categorize the climate as type A, while based on the classification of Olderman *et. al*. it is type A1. Rainfall is high and relatively evenly distributed throughout the year. The rainfall in Mt Trough is 4,500 mm per year. (GPNP Mgt Plan 2022-2031). Annual rainfall was 2645 mm in 2013, with periods of reduced rainfall from January to March and August to October (BPS Kayong Utara, 2014 cited by Toshihide et.al. 2018).

The DSNP is known as being one of the rainiest places in Kapuas Hulu Regency. The mean annual rainfall in the Danau Sentarum is 3,900 mm while the surrounding hills and mountains of the catchment area receives 4,500-6,000 mm per year[31][31]. Despite its natural state of being wetlands the Sentarum lakes area is vulnerable to drought which triggers wildfires that occur almost every year during the dry season.[32][32]

Gender (Women Group)

The Gender Development Index (GDI) West Kalimantan reveal that gender equality is lower than the average for Indonesia for 2018-2020[33][33]. Gender equality problems are still found in that restricted access of women to decision-making has resulted in unfair division of labor that contributes to poverty amongst women of some ethnic communities. Traditional custom practices weakened women's political position, perpetuating the patriarchal structure within the community. The shifting of land tenure from the community to the state via the plantation company and the practice of the ?household head? system of smallholder plot registration has narrowed women?s tenure access contributes to the increased vulnerability of women as plantation workers and women disempowerment. With the

presence of companies, cafe?s were established where the staff also engage in commercial sex with customers. It has become a source of sexually transmitted diseases (STD).[34][34]

The adverse effects on local biodiversity by expanding monoculture oil palm has not only caused the disappearance of the people?s source of various locally grown foods, but also the raw materials which local women use to produce local handicrafts for sale. For instance, Dayak women are skilled in rattan handicrafts, producing Jarai (local basket/carrier) for sale.[35][35] The destruction of surrounding forests has made it difficult for women to obtain the raw material. Jarai makers now have to walk a distance in order to obtain rattan.

Gender roles in agricultural activities within peatland-based communities[36][36] are significantly dominated by men. The role of men is dominant in the economic aspects of production and ownership of household assets, whereas women have a more significant role in domestic matters. The decrease in available agricultural land and the depletion of local food products as the result of forest destruction have shifted the pattern of food acquisition and consumption. Most foods and other household products are now purchased from local and mobile sellers, including children?s snacks, with cash or credit. The increasing dependence on cash economy[37][37] for fulfilling daily needs is one factor that influence the women to seek for alternative/additional household income to whatever the family obtains from their smallholder plots or their husbands? income, by working as plantation labourers or *berondol* seekers (scavenging for fallen palm kernels), even as migrant workers. Further indirect impacts of the plantation industry for the women including increasing social problems, for instance, prostitution and STD.

In DSPL, people generally fish for household consumption and surplus is processed in the form of salted and smoked fish) and sold to local markets. Men catch the fish, occasionally with the womenfolk. Fish caught from the lake are brought to the sub-district where wholesalers transporting these to Sintang.[38][38] The Dayak Iban women are empowered by their ability to weave baskets and vessels and participate in farming and labor activities. However, their role in the customary council is limited[39][39].

In GPSPPL, women?s groups are similarly present such as the Pembinaan Kesejahteraan Keluarga-PKK/ Guidance for Family Welfare) of Sedahan Jaya Village, a women?s organization promoting the Panca Dharma Wanita[40][40].[41][41]. An NGO (FFI) collaborates with the Palung Foundation in Rantau Panjang Village and Penjalaan Village Forest. Attempts at addressing gender equality are evident in the Community Development Program that focuses on small groups, especially mothers, where 30% of village forest development targets are women. This community makes eco-polybags, wickerwork, and vegetable nurseries, while the men focus on animal husbandry such as catfish.[42][42]

Baseline Projects. There are a number of on-going and planned activities that comprise part of CoPLI?s baseline. These can be grouped by those projects that support: (i) peatland management and conservation (e.g., The Western Pacific Sustainable Peatland Management Project (SAGU), IFAD-funded MAHFSA grant); (ii) Social forestry (Forest Investment Programme support in DSPL); (iii) sustainable landscape development and production (Ketapang District project); and (iv) community development (IFAD loan funded Integrated Village Economic Transformation Project (TEKAD) in eastern Indonesia); (v) community based conservation (various NGOs active in the two landscapes such as Yayasan ASRI and YIARI). The CoPLI project has been designed to build on and complement these existing and planned projects. See Table 1 for more detail on the baseline and expected contributions to the Project. For a list of other relevant GEF-supported projects and means to promote coordination with CoPLI see Table 4 below

Table 1. On-going/Proposed Activities in the Project Areas

Project title	Description	Lead Agency	Implementation Period	Funding Levels (US$)	Relevant CoPLI Components	Coordination Approach
Integrated Village Economic Transformation Project - Transformasi Ekonomi Kampung Terpadu (TEKAD)	IFAD loan project in Indonesia launched in 2021 for village development in Indonesia. As extensive peatlands occur in TEKAD project areas of Moluccas and Papua this project will serve to facilitate the upscaling of experiences and lessons-learned from CoPLI to other areas in Indonesia and is confirmed source of co-financing for CoPLI.	MoVDRT	2021-2027	34,350,000	Component 2. Output 2.3	- integration of project supported experiences and lessons-learned into village development plans and budgets so as to leverage co-financing of activities to protect/restore similar landscape

Western Pacific Sustainable Peatland Management (SAGU)	Upcoming BZMUV/IKI-funded project being developed by GEC, CIFOR, UNEP, Wetlands International, Kemitraan, SNV and International Tropical Peatland Center (ITPC) looking at peatlands in Indonesia, Malaysia and PNG and estimated to start in Q2 2023. Main objectives are to: increase awareness, reduce degradation and loss of lowland and upland peatlands, enhancing national inventories and collecting data that will support stronger environmental policies, planning, mapping and monitoring. C oncept approved and Indonesian Component is under development (led by UNEP) with focus on two peatland landscapes in 2 provinces - namely	UNEP MOEF (DPDC) Wetlands International	2023-2027	22,000,000	Component 2 Output 2.1 and 2.3 Component 3	Co-funding of activities in the Danau Sentarum peatland landscape (2.1) and outreach and scaling up in East Kalimantan. Linkage to information exchange and outreach activities in Component 3 including knowledge exchange; - joint cooperation in support of selected events; - project website; - project communication activities (outreach and awareness-raising materials and events); and - participation in project-supported forum

	DSPL in West Kalimantan (led by Wetlands International Indonesia), Mahakam Lakes in East Kalimantan (led by Kemitraan).					
Forestry Investment Project (FIP) - 1	The Forest Investment Program (FIP) is supporting action through ADB with the objective to reduce barriers to sub-national REDD+ implementation and to increase provincial and local capacity for REDD+ and SFM. The project aims to reduce barriers for sub-national REDD+ implementation, especially in WK using FMUs as the entry point to address key drivers of deforestation and forest degradation in 17 villages in five FMUs in Kapuas Hulu and Sintang districts including the national parks of Betung Kerihun and Danau Sentarum.	MoEF (DG Social Forestry)	2017 ? 2023 (including No Cost Extension)	17,000,000	Component 2 Output 2.1	This project is expected to have completed before the start of CoPLI project ? but if it is still operating there are options for collaboration in:- knowledge exchange; - dissemination of project-supported products; - joint cooperation in support of selected events; - project communication activities (outreach and awareness-raising materials and events); and - participation in project-supported forum

Measurable Action for Haze-Free Sustainable Land Management in Southeast Asia (MAHFSA)	IFAD grant in Indonesia and other ASEAN countries with the goal to reduce transboundary haze pollution and its impacts in Southeast Asia through supporting capacity building and knowledge exchange on peatland management and fire prevention in ASEAN Member States as well as support for developing an investment framework for 2022-2030.	ASEAN Secretariat, CIFOR and GEC	2019-2024	3,500,000	Component 1 Component 3	Resource mobilization strategy - knowledge exchange; and - project website

Sustainable Environmental Governance Across Regions (SEGAR) USAID	The project promotes increased capacity and commitment for good environmental governance across a diverse group of stakeholders at the subnational level, including key government of Indonesia (GOI) institutions, as well as facilitating a greater role for village communities and the private sector, including larger companies and small landowners and their associations. Will be implemented in four provinces including K etapang Districts in West Kalimantan	USAID contractor and Bappenas	2021-2026	33,000,000	Component 2; Output 2.1 and 2.2 Component 3	- knowledge exchange; - dissemination of project-supported products; - joint cooperation in support of selected events; - project website; - project communication activities (outreach and awareness-raising materials and events); and - participation in project-supported forum

Sungai Putri Peatland Conservation programme	Yayasan IAR Indonesia (YIARI) is an Indonesian-based charity established in 2008 that is financially and strategically supported by International Animal Rescue (IAR). YIARI currently runs a rehabilitation facility for orangutans in the southern part of the GPSPPL and is also very active in facilitating the conservation of the Sg Putri Peatlands	YIARI	2010-ongoing		Component 2; Output 2.2	YIARI will be an Implementation partner for the GPSPPL with a focus on the areas in and around Sg Putri Peatlands Support for peatland conservation and rehabilitation, outreach, wildlife protection etc.

Gunung Palung National Park Forest Conservation Prgramme	Yayasan ASRI was established in 2007 and is based in Sukadana Kayong Utara. It undertakes an innovative programme combining community health and conservation. It provides free healthcare to participants of its conservation programme; has planted 220,000 trees in and around GPNP; has a chainsaw buyback scheme to reduce illegal logging; trains and supports forest Guardians; und undertakes public awareness progammes	Yayasan ASRI	2007-ongoing		Component 2; Output 2.2	YASRI will be an implementation partner for the GPSPPL with a focus on the areas in and around GPNP Support for community development, forest conservation, outreach etc

Manjau Village Forest Project	Manjau Village Forest (HD) is a licensed village forest managed by the Manjau Village Forest Management Institution (LPHD) in Laman Satong Village, the District of Ketapang, West Kalimantan Province. HD Manjau is managed by the which has been facilitated by Fauna & Flora International (FFI) and CFES.	FFI CFES	2021-ongoing		Component 2; Output 2.2	This activity will link with and contribute to the implementation of the work in GPSPPL. COPLI will provide complementary support to the community
Rantau Panjang and Perjalaan Community forest project	Community forestry project in peatland areas adjacent to the GPNP. The project involved conservation and rehabilitation of degraded forest areas linked to community development and livelihood activities for the local communities.	Yayasan Palung FFI	2021 -ongoing		Component 2; Output 2.2	This activity will link with and contribute to the implementation of the work in GPSPPL. COPLI will provide complementary support to the community

Alternative Scenario and Theory of Change (TOC). The Project seeks to address some of the major issues threatening biodiversity in peatland ecosystems and the barriers preventing their resolution. The main direct pressures resulting in the loss of biodiversity in Indonesia?s peatlands include land use changes, habitat fragmentation, human encroachment, climate change and atmospheric nitrogen deposition. The main causal factors or drivers behind these issues include: (i) expansion of oil palm plantations[43]43, (ii) peatland drainage and increasing risk of fire, (iii) growing populations in peatland regions, including voluntary inward migration, (iv) non-sustainable harvesting and production practices of selected natural resources and (v) the effects of climate change.

Key barriers to the mitigation of these pressures and underlying casual factors include: (i) insufficient capacity of local government and Forest management units to prevent deforestation and degradation in peatland lands, (ii) ineffective enforcement of policies/regulations related to forest and peatland management; (iii) insufficient inclusion of biodiversity conservation into Indonesia?s peatland planning and regulatory frameworks, (iv) insufficient financial resources, options or incentives to support sustainable peatland management and conservation efforts, (v) unsustainable land management by local communities; (vi) Slow implementation of multi-stakeholder management strategies; and (vii) inadequate awareness or access to information on sustainable management of peatland landscapes and ecosystem services generated by biodiversity.

To overcome these issues, the Project will work towards three technical areas to support the achievement of immediate outcomes: (i) strengthened capacity and plans formulated and adopted, supported by additional resources for peatland protection and improved management at national level and targeted provinces, (ii) improved protection and management of biodiversity in targeted peatland landscapes improved in partnership with local government, communities and private sector. including providing livelihood options through sustainable peatland management as an incentive to better protect and manage peatland resources; (iii) enhanced knowledge and communication and monitoring of peatland biodiversity.

Key risks potentially faced by the Project in achieving these outcomes are:; (i) Changes in policy and management practices as a result of presidential and other elections scheduled in 2024; (ii) Intense El Nino related drought during the project period that could lead to increased peatland and forest fires as well as negatively impact other aquatic communities and resources; (iii).weak governance and ineffective measures against corruption; (iv) intensification of CC risks including drought, flooding etc; (v) COVID-19 risks and impacts on human resources resulting in delays in project implementation.

Key Assumptions include:(i) Different directorates and directorate generals of the Ministry of Environment and Forests as well other ministries will all work cooperatively together to achieve project outcomes; ii) There will be adequate support and buy-in from provincial/district governments for CoPLI and its exit strategy; (iii) Local stakeholders (including women and youth) will actively participate in project supported activities.

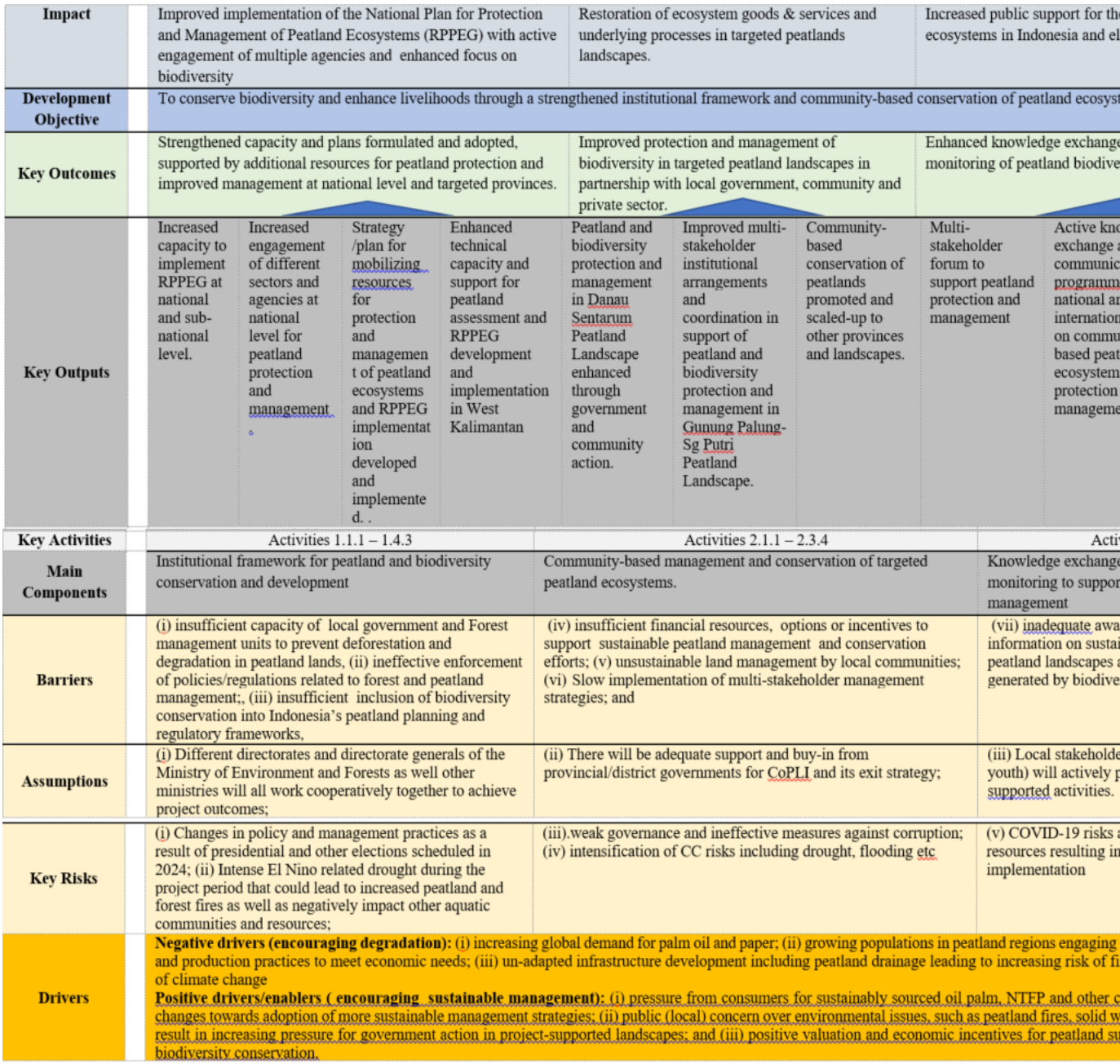
Positive factors that could facilitate Project success include: (i) pressure from consumers for sustainably sourced palm oil, NTFP and other commodities that could promote changes towards adoption of more sustainable management strategies; (ii) public (local) concern over environmental issues (e.g., peatland fires, accumulation of solid wastes and/or illegal fishing), result in increasing

pressure for government action; and (iii) expansion of economic incentives in support of sustainable management and conservation in project-supported landscapes.

In addition to a number of direct implementing partners, the Project will rely on the support of a large and diversified group of stakeholders including institutions from the participating villages, private sector and NGOs and CSOs. It is intended that the Project would build on the strong network of partnerships, experience and lessons-learned derived from the earlier projects leading to more effective and transformative activities (see sections 2a and 5 for more detail, below).

The project outputs and outcomes have been summarised in relation to the TOC in Figure 1 below. The immediate outcomes shown in the TOC are the project outcomes shown in the project results framework (Annex A). The project TOC also shows project outputs included in the project results framework, which are the products and services planned to be delivered by the Project in support of the achievement of the immediate outcomes

Figure 1. CoPLI THEORY OF CHANGE



Project Objective. The objective of the Project is **to conserve biodiversity and enhance livelihoods through a strengthened institutional framework and community-based conservation of peatland ecosystems in Indonesia**. The Project has three technical components. These are: (i) Institutional framework for peatland and biodiversity conservation and development; (ii) Community-based management and conservation of targeted peatland ecosystems; and (iii) Knowledge exchange, communication and monitoring to support peatland protection and management.

Component 1: Institutional framework for peatland and biodiversity conservation and development.

Under this component, the Project will strengthen the institutional framework for peatland and biodiversity conservation at national level and targeted provinces. This includes support for the implementation of the National Peatland Ecosystem Protection and Management Plan ? RPPEG (2020-2049) as well as the development, promotion and implementation of Peatland Ecosystem Protection and Management Plans (RPPEG) in the targeted provinces and districts. It will integrate key measures for peatland and biodiversity conservation into the RPPEG at national and provincial levels and support the assessment and monitoring of peatland landscapes in order to identify priority landscapes for conservation. The component will build the institutional capacity through provision of training and capacity building activities for a broad range of relevant stakeholders at national and provincial levels contributing to the development and implementation of the RPPEG. It will also facilitate the development of a strategy for mobilizing resources to implement the RPPEG and help ensure sustainable efforts in sustainable peatland management and biodiversity conservation. Additionally, the Project will ensure gender-balanced participation in policy-making processes so that needs and perspectives of women and men are adequately addressed. It will also support incorporation of climate adaptation aspects into the implementation of the RPPEG at national, provincial and local levels, by taking into consideration future climate scenarios of reduced dry season rainfall, increased temperatures leading to increased peatland fire risks in cases where rewetting and rehabilitation measures are not put in place.

Outcome 1: Strengthened capacity and plans formulated and adopted, supported by additional resources for peatland protection and improved management at national level and targeted provinces.

Output 1.1: Increased capacity to implement RPPEG at national and sub-national level. Under this output, the Project will support implementation of the National RPPEG (2020-2049) and its stronger mainstreaming of biodiversity. This will include the development of a medium term (5yr) implementation plan (as the national plan covers a 30-year time-frame) including specific actions related to biodiversity conservation. This output will also support the promotion of the RPPEG and related policies and regulations at the national level as well as effective monitoring and reporting of the progress in RPPEG implementation at national, provincial and district levels.

Activities:

Activity 1.1.1: Organize a series of meetings and workshops with related stakeholders to: (i) promote the enhanced implementation of the National RPPEG by related national and provincial stakeholders; (ii) review progress of the initial implementation of the National RPPEG in the period 2020-2024 and (iii) assess experiences and lessons learned to guide future implementation;

Activity1.1.2: Develop in a participatory manner, an implementation plan for the RPPEG in the period 2025-2029[44][44]. The implementation plan should include specific targets for the implementation of the RPPEG over the 5 years including targets for development of RPPEGs at the province and district levels. The implementation plan will ensure the effective incorporation of biodiversity conservation into the RPPEG.
Activity 1.1.3: Produce annual reports on RPPEG implementation. Active communication will be undertaken by DPDC with national and provincial stakeholders to track the implementation of RPPEG across the country. This will involve gathering of regular feedback from related key agencies at province and district level as well as data from national agencies related to national RPPEG implementation. Sex-disaggregated data will be collected where appropriate to enable gender perspectives and barriers to be incorporated into reports. This will also be linked with the SIPPEG Information Management System (see Output 3.3)

*Implementation Arrangements***:** This output will be implemented by the DPDC with support from project staff and consultants. This will involve as key participants in workshops and development of the implementation plan for the RPPEG other key agencies at national level including at least 9 Directorate Generals /agencies within the Ministry of Environment and Forests (dealing with nature conservation, climate change, forest management, law enforcement, social forestry, planning etc), Ministry of Agriculture, Ministry of Public Works, Ministry of Villages, Transmigration and disadvantaged Regions, National Planning Agency, National Research Agency etc). It will also involve engagement with Provincial and District governments in regions across Indonesia with significant peatlands - especially in relation to development of the implementation plan for the RPPEG and the preparation of annual reports on implementation.

Output 1.2: Increased engagement of different sectors and agencies at national level for peatland protection and management. Peatland management in Indonesia involves a broad range of stakeholders including national, provincial, district governments, private sector and local communities. Peatlands are also used for a wide variety of purposes including forestry, agriculture, plantations, water resources, biodiversity conservation, carbon sequestration and local livelihood support. As a result, there is a broad range of ministries and agencies at the national level engaged in some aspects of peatland management. The National RPPEG (2020-2049) currently lists 16 agencies and directorate generals plus local government, private sector, research and other sectors as key implementers of the Plan. This includes eight directorate generals within the Ministry of Forestry and Environment (MOEF) including DGs for pollution and land degradation control, conservation of natural resources and ecosystems, climate change control, forest management, catchment and protection forest management. The focus of this output will be to enhance the engagement and capacity of these multiple agencies and stakeholders to support the development and implementation of RPPEGs in Indonesia as well as integration of peatland management concerns and biodiversity issues into their own agency plans and processes. In the process, the project will help to identify any contradictory policies that may act as a constraint to collaboration and synergy between different ministries and agencies and work to address these as appropriate. The Project will also support and enhance the work of MOEF to oversee and actively monitor the impact and management of peatlands on both peatland status and biodiversity, and promote the integration of peatland conservation measures that are also ?biodiversity positive? into the land use planning by provincial and local governments. It will also work to enhance the management of peatlands and biodiversity in production landscapes, within peatland hydrological units through working with private sector plantation companies. Women?s groups and female staff of agencies will

be one of the targets for capacity development and modules on gender and social inclusion will be included in training programmes.

Activities:
Activity 1.2.1: Conduct an analysis on the institutional framework and programs at national level related to peatland and biodiversity protection and management in the framework of the RPPEG to identify agencies involved and respective capacity strengths and gaps;
Activity 1.2.2: Develop a capacity development plan including sector sub-plans and a training needs assessment and strategy as well as develop training materials;
Activity1.2.3: Organise workshops, training of trainers (ToT), training, exchanges and study visits to strengthen the capacity for agencies at the national level to support implementation of the RPPEG considering biodiversity;
Activity1.2.4: Compilation, development and dissemination of manuals and best practice materials to support implementation of the RPPEG and sustainable peatland management and conservation of peatland biodiversity;
Activity 1.2.5: Outreach and awareness activities (in close coordination with activities under Output 3.2) to promote the development and implementation RPPEG including of biodiversity conservation.

> *Implementation Arrangements:* This output will be implemented by the DPDC in coordination with the multiple agencies specified in the RPPEG to support the protection and management of peatlands at national level. It will be supported by project staff and consultants. This will involve as collaborators and contributors and workshop participants other key agencies at national level including at least 9 Directorate Generals /agencies within the Ministry of Environment and Forests (dealing with nature conservation, climate change, forest management, law enforcement, social forestry, planning etc), Ministry of Agriculture, Ministry of Public Works, Ministry of Villages, Transmigration and disadvantaged Regions, National Planning Agency, National Research Agency etc). Gender disaggregated data will be collated on capacity development programmes.

Output 1.3: Strategy for mobilizing resources for protection and management of peatland ecosystems and RPPEG implementation developed and implemented. Significant resources are required for implementation of the RPPEG and management of peatland ecosystems throughout the country. These resources need to be allocated by a broad range of ministries and agencies, national, provincial and local governments as well as the private sector peatland managers, investors and international community. This is an integral part of the support for RPPEG implementation (together with Outputs 1.1 and 1.2). The resource mobilization strategy will support and guide the process for resource mobilization over a 5-10 year period, drawing on existing and planned allocations from government agencies, development assistance and global environmental financing, private sector investment and contributions from research agencies, civil society, general public and local communities. This work will also include consideration of options of innovative finance such as:(i) climate finance; (ii) payment for ecosystem services; (iii) supplementary allocation of finance to local governments or communities which have met peatland conservation or management targets; (iv) private sector cash rewards for communities that prevent fires in peatland areas; etc. It will also link to and draw upon the regional investment framework for haze-free land management in Southeast Asia (2022-2030) which is currently under development by the Association of South East Asian Nations (ASEAN) with the support of the IFAD-MAHFSA Programme.

Activities

Activity 1.3.1: Develop an outline framework for resource mobilization in a participatory manner, with the involvement of different stakeholders. This will be supported by developing an economic analysis to justify enhanced resources for peatland protection and management as well as clarifying the business case to invest in sustainable management of peatland, emphasizing values related to biodiversity conservation (both for biodiversity but also for resilient livelihoods, nutrition, etc.) and peatland conservation (carbon, water etc.).;

Activity 1.3.2: Prepare a Resource Mobilization Strategy to support RPPEG implementation including identification of different funding sources including national government allocations, private sector investment, international development assistance agencies, climate finance etc.). Specific sub plans will be developed for targeted districts in West Kalimantan (integrated with the development of the district RPPEGs under Output 1.4). The district RPPEG resource mobilization plans, will help identify the resources available for implementation of the RPPEG from government, private sector and other sources. It will also contribute to make the economic case of investing in such conservation and restoration efforts, including activities which may be supported by village development funds or rural finance institutions and activities that specific stakeholders could finance as it contributes to meet their own requirements (e.g., for private sector in relation to roundtable on sustainable palm oil and corporate social responsibilities, etc.);

Activity 1.3.3: Promote, implement, monitor and report the progress of the strategy (s).

Implementation Arrangements: This output will be implemented by the DPDC working with other directorate generals in MOEF as well as other ministries with specific roles for peatland management as specified in the RPPEG, with support from project staff and consultants in conjunction with different stakeholders at national levels. It will also involve the National Planning Agency as well as international development assistance partners (in the resource mobilisation plan.). Efforts will be made to ensure as far as possible that the plan for resource mobilisation includes adequate resources for equitable gender and social inclusion approaches. Development of resource mobilisation plans at the district level would be integrated with output 1.4 and focus on the three targeted districts of Kapuas Hulu, Ketapang and Kayong Utara.

Output 1.4 Enhanced technical capacity and support for peatland assessment and RPPEG development and implementation in West Kalimantan. The National Plan for Protection and Management of Peatland Ecosystems (RPPEG) and associated regulations specify that each province and district with significant peatlands should prepare an RPPEG. West Kalimantan, one of Indonesia?s most important provinces in terms of area and biodiversity of peatlands has yet to prepare a RPPG. The Project will provide support for peatland assessment, development and implementation of the RPPEG at provincial level including support for development of the RPPEG for the three districts which will be supported under Component 2 of CoPLI. The preparation of the RPPEG will be in line with national regulations and best practice but will place additional emphasis on incorporating biodiversity considerations using PHU framework that can be disseminated as a best practice for replication in other provinces.

Activities:

Activity 1.4.1: Participatory assessments of selected peatland hydrological units (PHUs) in West Kalimantan (with a focus on targeted districts) to determine characteristics, functions and values (including biodiversity conservation, water resource management carbon storage and livelihood

support) and refine indicative zoning of peatlands for conservation and utilization based on assessments and the national regulations and procedures for PHU assessment.
Activity1.4.2: Support the development of RPPEGs for both West Kalimantan and the three targeted project districts (Kapuas Hulu, Ketapang, Kayong Utara) including undertaking multi-stakeholder consultations and preparing a resource mobilization plan (linked to output 1.3).
Activity1.4.3: Develop the institutional framework (e.g. specifying responsible and lead agencies, workplan and review process) for implementation the RPPEGs and build the capacity of agencies and other stakeholders to implement the RPPEG, including integrating Provincial RPPEG implementation with the work of the Provincial Peatland Restoration Team established by BRGM (Tim Restorasi Gambut Daerah - TRGD)
Activity 1.4.4: Support implementation and monitoring of RPPEG in province and targeted districts

Implementation Arrangements: This output will be implemented by the Provincial and District level agencies led by Provincial Environment and Forestry Agency with support of DPDC, project staff and short-term consultants. It will also involve agencies participating in the Provincial Peatland Restoration Team (Tim Restorasi Gambut). Capacity building activities will include modules on gender and social inclusion for peatland protection and biodiversity conservation.

Component 2. Community-based Management and Conservation of Targeted Peatland Ecosystems.

Component 2 will promote work in two targeted landscapes in West Kalimantan as well as expand and scale up activities in West Papua, in partnership with other projects and initiatives. In West Kalimantan, the Danau Sentarum Peatland Landscape (DSPL) and the Gunung Palung-Sg Putri Peatland Landscape (GPSPPL) have been described in more detail above. While they are both peatland ecosystems - DSPL is an inland peatland 1000km upstream from the coast, in a large lake basin while GPSPPL is a coastal peatland system and they facing different challenges and opportunities with DSPL mainly affected by logging and catchment degradation, while GPSPPL is more impacted by drainage and fires linked to agriculture and plantations. This component will thus develop and showcase different approaches for sustainable peatland management and RPPEG implementation that can then be used as a model for other areas. It will help strengthen the management of peatlands within the national parks and forest management units in each of the landscapes The component will also support community-based conservation and management of peatland in selected villages in of targeted landscapes, focusing on communities selected based on their potential to address representative management issues (e.g. fire, drainage, forest management, water resources etc) and with favoring conditions (strong community engagement, opportunities for co-financing, co-management, clarity of land/resource use tenure etc.). It will facilitate the local government, private sector and local communities to implement sustainable biodiversity-friendly approaches. It will also empower and build their capacity in conserving forests and peatland biodiversity, thereby reducing risks of unsustainable agriculture practices and expansion leading to habitat degradation and biodiversity loss. The Project will deliver training packages on sustainable diversified income generation models for peatlands, and facilitate the development of Village land Use plans (VLUP) and Community Work Plans (CWP). The selected CWPs supporting forest and peatland biodiversity conservation will be piloted under the Project and documented under component 3 to facilitate their scaling. The project will draw on experience of ongoing programmes operating in the targeted landscapes (such as implemented by Yayasan ASRI in GPSPPL) which have demonstrating that investing in community health and welfare when combined with conservation action can be very effective in reducing rate of deforestation or habitat loss.[45][45] Special efforts will be made to ensure effective gender and social inclusion in the implementation of the activities in the targeted landscapes. The project will also strengthen and document traditional knowledge in local communities related to conservation and sustainable resource

use that capture gender differentiation in conservation of peatlands. The Project will also strengthen the management of national parks in the targeted landscapes and enhanced community-based peatland conservation. It will also work closely with private sector (plantation companies, concession holders) in enhancing peatland management practices within targeted conservation areas, buffer zones and production landscapes. Finally, it will also coordinate closely with TEKAD and other Projects to promote scaling up of community-based forest and peatlands conservation to other provinces and landscapes.

Outcome 2: Improved protection and management of biodiversity in targeted peatland landscapes in partnership with local government, community and private sector.

Output 2.1: Peatland and biodiversity protection and management in Danau Sentarum Peatland Landscape enhanced through government and community action. The Danau Sentarum Peatland Landscape covers 248,532 ha of peatlands, wetlands and forests located in the floodplain of the upper Kapuas River in West Kalimantan Province. It contains very significant areas of intact peat swamp forest (especially in the eastern portion of the landscape) which are critical for orangutans and other key species. The main current and future threats to the peat swamp forests include clearance and drainage for conversion to oil palm and agriculture, as well as fires and high levels of logging for construction materials for villages and for commercial purposes. Overfishing and pollution from the villages in the lake system are also a significant challenge. There are also significant knowledge gaps ? for example the peatlands in the landscape are not well assessed and delineated and there appear to be significant peatland areas outside the currently designated peatland hydrological units. While large portions of the remaining peat swamp forests outside of the national park were included as protected zones under the national moratorium for oil palm development, land has been provisionally have been issued for a further 10,000 ha of oil palm development on peatlands in parts of the landscape. Neither the National Park nor the Forest Management Unit appear to currently have a clear understanding of the nature and management requirements of peatlands under their control. Finally, there is even less knowledge on specific biodiversity issues related to peatland management and how to ensure sustainable peatland management contributes to biodiversity conservation.

This output will support the enhanced protection and management of peatlands in the landscape through improved understanding of the nature and management requirement of the peatlands as well as active partnership with selected villages and management agencies. The Project will work to integrate peatland ecosystems into the management of the DSNP as well as part of the Kapuas Utara Forest Management Unit. The output will also help to implement key elements of the RPPEG for Kapuas Hulu District to be developed under output 1.3. The Project will also empower villages to better manage and benefit from their peatland resources.

Activities

Activity 2.1.1: Building on 1.3.1, Undertake assessments and verification of peatlands outside of the current PHUs in the landscape to enable the designation of new PHUs and development of management strategies to maintain them and their associated biodiversity including minimizing impact for plantation [46][46]and agriculture development and operation in peatland areas as well as potential identification of specific biodiversity corridors to link to other peatlands in the landscape. This will also support the development of the District RPPEGs under Output 1.3.

Activity 2.1.2: Enhance the management of peatlands in DSNP through development and implementation of management measures in the national park in partnership with communities (with a focus on four targeted villages within DSNP). Such good practices should build on existing relevant indigenous good practices and institutional frameworks, including enhanced patrolling and monitoring of peatlands, incorporation of peatlands into national park interpretation and visitor activities; strengthening of co-management (formalize community groups for Conservation Community Agreement), fire prevention and rehabilitation of peatlands in the national park

Activity 2.1.3: Strengthen the protection and management of peatlands outside of the national park, in conjunction with the Kapuas Hulu Forest Management Unit and local communities in the Sg Belitung-Sg Kapuas PHU [47][47](which forms an important habitat and migration corridor for orang utan and other wildlife as well as a key water catchment). This will involve assessment and mapping of the remaining peat swamp forest, and support for establishment and management of social forestry zones *(Hutan Adat, Hutan Masyarakat etc*); and potential innovations related to community biodiversity monitoring and conservation (such as in situ conservation of crop wild relatives and other genetic resources though establishment/enhancement of conservation practices and areas by the indigenous community groups).

Activity 2.1.4: Empower selected communities (focusing on four villages in the landscape outside the national park, but also including four target villages in the national park to the extent that national park regulation permit) to protect and manage their peatland resources through development of and peatland protection and management action plans (RAM)/village regulation and, where appropriate, Village Land Use Plans (VLUP) and enhance community-based peatland management and livelihoods. Such plans will be implemented in a gender and social inclusive manner in a selected number of villages representing the diversity of community situations with regards to peatland and biodiversity conservation. They shall build on local situation analysis and identification of priority investments which could provide sufficient incentives for biodiversity and peatland conservation and thereby address drivers of unsustainable practices including: (i) Development and improved processing and marketing of community NTFP and environmental services (illipe nuts, honey, crafts, fisheries, ecotourism) from peatlands so as to increase the value of conserving related species; (ii) Development and capacity building for vegetable production, agroforestry and organic farmer groups (demplots); (iii) Development of community tree nurseries and seed banks to facilitate conservation of locally appropriate species and facilitate reforestation of land in areas impacted by forest and land fires; (iv) Support for access to social forestry schemes and strengthen local rules or customary law for peatland protection; (v) Address key environmental and welfare challenges including support facilities for clean water supply, household waste treatment, enhanced production of vegetables and education on nutrition; (vi) strengthening of local peatland protection and fire prevention groups [48]48 such as Desa Mandiri Peduli Gambut (DMPG), Masyarakat Peduli Api (MPA) and Desa Peduli Gambut in selected villages; (vii) Developing MOUs or agreements between communities and National Park for conservation agencies to facilitate co-management of resources or provide incentives for conservation action.

Activity 2.1.5: Development a model landscape management strategy to showcase how peatland landscapes and related biodiversity can be managed with multiple stakeholders as well as through

different management frameworks including DSNP and biosphere reserve management plans, DS catchment management plan, forest management plans etc This landscape management strategy shall clearly evaluate and compare the cost-benefit of the various livelihoods being undertaken by the communities and potential additional incentives mechanisms landscape stakeholders may need to develop to ensure that activities contributing to peatland and biodiversity conservation are adopted by communities. The Project will also help link and strengthen the different stakeholder fora in the landscape including Danau Sentarum Watershed Forum, Labian Leboyan Watershed Community Forum and the Biosphere Reserve Forum.

Implementation Arrangements: This output will be implemented by a range of agencies (including Agriculture Agency, Community Development Agency, Hulu Kapuas Forest Management Unit, Danau Sentarum National Park HQ etc) and NGOs coordinated by a working group chaired by the District Environment and Forest Agency/Bappeda. Different partners (including DSNP, FMU and appropriate NGOs) taking the lead on different activities with support from a Landscape Implementation Unit (LIU) based at the district Environment and Forest Agency staffed by various project personnel (district coordinator, district admin/finance officer and technical officer) and consultants. One village facilitator will be based in each target village to work with a village peatland protection and management team (comprising a minimum of 16 villagers) to undertake or facilitate the village level activities. The Project will engage and collaborate with other district agencies related to fisheries, agriculture, plantations and health to support different aspects of the project. Linkages will be made with various NGOs that have been active in the landscape for many years such as Yayasan Lahan Basah Indonesia (Wetlands International Indonesia), Yayasan Riak Bumi as well as other projects operating in the landscape such as SAGU. It will also build on the mechanisms and activities undertaken under the ADB- supported FIP project and incorporate apaches to address gender and social inclusion.

Output 2.2: Improved multi-stakeholder institutional arrangements and coordination in support of peatland and biodiversity protection and management in Gunung Palung-Sg Putri Peatland Landscape. The Gunung Palung-Sg Putri Peatland Landscape (GPSPPL) comprises peatlands and lowland forest as well as community areas and plantations. It is one of the most important remaining areas of orangutan habitat in the world. The peatlands are negatively impacted by logging, land clearing, drainage and fires. While large portions of the northern part of the landscape is protected within the GPNP, the landscape in the south is seriously impacted by drainage, fire, logging and mining. In addition, significant parts of the landscape are in production forests (*hutan produksi*) and conversion forests (*hutan produksi konversi*) which may be logged, cleared or converted to other land uses. Unless an integrated approach is taken to link together all these separate portions of the landscape ? it will become more fragmented and vulnerable to fire or degradation in the future. The Output will focus on developing a clear integrated strategy for the targeted landscape and bring together stakeholders together (including the Ketapang and Kayong Utara Districts, the Southern Ketapang and Kayong Utara Forest Management Units, GPNP, private sector plantation companies, NGOs operating in the landscape and targeted local communities), to maintain the integrity and enhance management of the landscape.

Activities:
Activity 2.2.1: Undertake assessment of the four targeted peatland hydrological units in the landscape to identify land cover, areas important for biodiversity conservation and key management issues; develop a peatland protection and management strategy for the landscape to address priority issues, including

measures to manage existing drainage, rewet critical areas, prevent fires and rehabilitate degraded areas as well as specific options to enhance biodiversity conservation, including such as through wildlife corridors linking parts of the landscape or updating of the management zoning for utilization and protection under the national peatland regulations.

Activity 2.2.2: Enhance the management of peatlands in the GPNP through development and implementation of management measures by the national park including enhanced patrolling and monitoring of peatlands, incorporation of peatlands into national park interpretation and visitor activities; fire prevention and rehabilitation of peatlands in the national park and immediately adjacent forest and village areas; enhancement of overall national park capacity; such activity will also contribute to identify and document additional relevant practices implemented by indigenous communities to protect peatland and biodiversity

Activity 2.2.3: Work with the existing oil palm plantation companies in the landscape (especially from the ANJ and BGA groups) to strengthen the protection and management of remaining peat swamp forest and forest corridors in and adjacent to their plantation areas in the peatland hydrological units.

Activity 2.2.4: Support the work of Yayasan Inisiasi Alam Rehabilitasi Indonesia/Indonesian Nature Rehabilitation Initiation Foundation (YIARI) and PT MKI[49][49] to strengthen the protection and management of peatlands in the Sg Pawan-Sg Tolak PHU (including blocking of logging and drainage canals, rewetting and rehabilitating degraded peatlands, establishing an Ecosystem Restoration Concession and protecting peat swamp forests currently designated as production (*hutan produksi*) and conversion forests *(hutan produksi konversi*)), in conjunction with the Southern Ketapang Forest Management Unit and local communities.

*Activity 2.2.5:*Empower eight selected local communities to protect and better manage their peatland and biodiversity resources, in the landscape outside the GPNP, through development of peatland protection and management action plans/village regulations and enhance community-based peatland management and livelihoods including: (i) Enhance peatland fire prevention measures through improved peatland water management[50][50], regular community patrolling and fire prevention measures; improvement of capacity for fire control; (ii) Develop community tree nurseries, local species seed banks and support reforestation of land in areas impacted by forest and land fires[51][51]; (iii) Support access to social forestry schemes and strengthen local rules or customary law for peatland protection; and (iv) Improve sustainable management of peatlands under village control (including restriction on construction of additional drainage, construction of canal blocks and water level monitoring systems in existing drains[52][52] and development of agroforestry and other appropriate livelihood options and associated value chains) ; (v) development of co-management agreements.

Activity 2.2.6: Strengthening existing landscape level stakeholder coordination mechanisms (including the Essential Ecosystem Forum, etc.) and local peatland protection and fire prevention groups such as Desa Mandiri Peduli Gambut (DMPG), Masyarakat Peduli Api (MPA) and Desa Peduli Gambut in selected villages to implement the landscape strategies.

Implementation Arrangements: This output will be implemented by a range of agencies coordinated by district working groups chaired by the respective District Environment and Forest Agency/Bappeda and including different partners (including Gunung Palung National Park,

plantation companies, NGOs -YASRI, YIARI etc etc.). The planned activities would be led or guided by appropriate partners (eg enhancement of national park management led by GPNP, conservation of Sg Putri Forest led by the Forest Management Unit and YIARI etc). Support will be provided by a two Landscape Implementation Units (LIU), one in each district, based at the offices of the respective District Forest and Environment Agency and staffed by various project personnel (district coordinator, district admin/finance officer, technical officer) and consultants. One village facilitator will be based in each target village to work with a village peatland protection and management team (comprising a minimum of 16 villagers) to undertake or facilitate the village level activities. The Project will engage and collaborate with other district agencies related to fisheries, agriculture, plantations and health to support different aspects of the project. There will be active engagement and partnership with various NGO partners that have been active in the landscape for many years including Yayasan ASRI and YIARI.The activities will build on the experiences and lessons learned related to gender and social inclusion in the sustainable management and protection of peatland and forest ecosystems.

Output 2.3: *Community-based conservation of peatlands promoted and scaled-up to other provinces and landscapes*. Under this Output, the Project experiences in developing RPPEG at provincial, district and landscape level as well as RPPEG implementation (including incorporating peatland and biodiversity protection and management into Village Land Use Plans; development of community, community-based peatland restoration and management; sustainable utilization of peatland resources) will be promoted and potentially replicated and scaled-up in other provinces and landscapes. This would be facilitated mainly through partnership with IFAD?s Integrated Village Economic Transformation Project - *Transformasi Ekonomi Kampung Terpadu* (TEKAD) (which focusses in district and village development in Eastern Indonesia) as well as the IKI-funded Western Pacific Sustainable Peatland Management (SAGU) Project which will support management of peatland landscapes in West Kalimantan, East Kalimantan and West Papua Provinces.

Activities

Activity 2.3.1: Approximately 10 of the 25 districts in Eastern Indonesia targeted under TEKAD Project (partly financed by IFAD and implemented through the Ministry of Villages, Disadvantaged Regions and Transmigration MoVDRT) have peatland areas as well as globally significant biodiversity. The CoPLI project will work with the TEKAD project to share experiences and best practices and technical guidance to support the incorporation of peatlands into village land use planning and district development plans in targeted areas across Eastern Indonesia (especially in West Papua and Papua Provinces) as well as work to improve the abilities of village governments and communities to promote and implement inclusive and sustainable village economic development, supporting community-based natural resource management, biodiversity conservation and livelihood enhancement. Models will be shared for good practice and suitable agriculture, agroforestry and non-timber forest products to be used by communities in the TEKAD region. Specific activities supported through the GEF finance will include technical input, capacity building and exchange through ethnical assistance modality; while TEKAD resources will support the implementation at district and local levels including the funds channeled direct to communities through Village Funds under the Guidance of MoVDRT.

Activity 2.3.2: Work in partnership with the IKI-financed SAGU project to support and expand the activities in the Danau Sentarum Peatland Landscape and share experiences with stakeholders in the

Mahakam Lakes Peatland Landscape [53][53] in East Kalimantan Province and targeted areas in West Papua Province.

Activity 2.3.3: Develop and promote models, best practice and guidelines for :(i) Village Land Use Planning (VLUP) and village regulations incorporating sustainable peatland management and biodiversity conservations. As well as (ii) sustainable agricultural practices / agro-forestry which can help conserve biodiversity and peatland ecosystem;

Activity 2.3.4: Promote the inclusion of peatland management and biodiversity issues in annual village and district development planning (*Musyawarah Perencanaan Pembangunan*) to ensure that peatland management include in the development planning and to help communities access the government budget (Alokasi Dana Desa/Dana Desa) by Ministry of Home Affairs) for peatland management issues. Similarly, based on lessons learnt, the Project will make recommendations on specific investments and activities to be promoted as part of private sector engagement on peatland and biodiversity protection, including through engagement with companies that are members of the Roundtable on Sustainable Palm Oil (RSPO).

Implementation Arrangements: This output will be implemented by DPDC in partnership with the TEKAD and SAGU Projects as well as the related province and district governments. The MoVDRT will be a key partner in implementation ? not only through the TEKAD project but also in helping to share and scale up experience and lessons learned for integrating peatlands into land use planning throughout Indonesia and also helping to allocate resources for sustainable peatland management for villages in peatland regions. As the SAGU project is still in the approval stage ? a meeting will be organized after the approval of both projects to develop a detailed plan for collaboration. The project will support and build upon the gender and social inclusion strategies of the TEKAD and SAGU projects as well as share lessons learned on gender and social inclusion from other targeted landscapes.

Component 3. Knowledge Exchange, Communication and Monitoring to Support Peatland Protection and Management. Under Component 3, the Project will promote the building of a multi-stakeholder partnership for peatland protection and management. It will also promote the development of knowledge products at national and international levels, to boost adoption of sustainable agriculture and biodiversity conservation practices in forest and peatland areas. In order to communicate best practices and lessons learned from the Project to wider audiences, CoPLI would also facilitate knowledge exchange activities at the national level and beyond for wider adoption of such practices and lessons. Finally, it would support the strengthening and diversifying of the National Information System for Protection and Management of Peatland Ecosystems (SIPPEG) by including monitoring of RPPEG development and implementation.

Outcome 3: Enhanced knowledge exchange and communication and monitoring of peatland biodiversity.

Output 3.1: Multi-stakeholder forum to support peatland protection and management. There are many different stakeholders with important roles related to the protection and management of peatland ecosystems in Indonesia. These include ministries related to environment, forestry, agriculture, public works, village development; as well as private sector oil palm and forest plantations, research institutions, civil society and provincial and local governments. In order to enhance common vision and

collective action a multi-stakeholder forum will be set up at national level to support peatland protection and management. The Project will support the development of a national multi-stakeholder forum or network to support the promotion and implementation of the RPPEG, exchange experiences and best practices and support the development of the resource mobilization plan for the RPPEG. It will also link with and enhance other related platforms at provincial or landscape level. The forum will build on the networking undertaken through the ongoing IFAD supported project IMPLI project and will also include efforts to enhance the conservation of peatland biodiversity

Activities
Activity 3.1.1: Map existing fora or networks at national level related to peatland management and determination of strengths and gaps as well as a needs assessment.
Activity 3.1.2: Strengthen existing Forums or establish a new forum or network to support Sustainable peatland management and the implementation of the RPPEG.
Activity 3.1.3: Engage the Forum to promote the implementation of the RPPEG (linked to Output 1.2) and support the development of the resource mobilization strategy (linked to Output 1.3) as well as support sharing of best practices and new approaches for sustainable and community-based peatland management.
Activity 3.1.4: Encourage the forum to develop and promote a key approaches for conservation of peatland biodiversity.

Implementation Arrangements: The Output will be implemented by the DPDC in conjunction with different stakeholders from government, private sector, research and Civil society as identified through Activity 3.1.1. Support will be provided by project personnel and consultants. . Efforts will be undertaken to ensure at least 30% of those participating in the forum are women and that a working group to enhance gender and social inclusion is established as part of the forum,

Output 3.2: Active knowledge exchange and communication programme at local, national and international levels on community-based peatland ecosystem protection and management. The Project would strengthen knowledge exchange and communication activities at local, national and international levels through development and dissemination of knowledge products. The Project aims to enhance the capacity and understanding of key stakeholders and to have at least 8 new approaches to peatland protection and management documented and adopted by different stakeholders by the end of the project period. It will build on the work undertaken under previous IFAD-GEF supported projects (SMPEI/IMPLI)

Activities:
Activity 3.2.1: Development, implement and regularly update a Knowledge Management and Communication (KMC) Plan (building on ongoing KMC plan under IMPLI project) which shall among others serve to: (i) enhanced awareness and evidence on need for peatland sustainable management; and (ii) document good practices and guidelines required to implement improved management in the areas. (iii) development of materials on best practices for gender and social inclusion in peatland management.
Activity 3.2.2: Develop a web-page or sub-site on the MOEF webpage to document and share experience in community-based protection and management of peatlands as well as knowledge products on sustainable peatland management with key stakeholders, regional initiatives and general public.

Activity 3.2.3: Develop KM products including policy briefs, project briefs, and technical guidelines as well as infographics and videos on peatland, forest and biodiversity issues and articles and disseminate via a user-friendly and accessible electronic media using mobile technology and websites; the project shall promote the recognition and use of the guidelines as well as programmes such as Desa Mandiri Peduli Gambut (DMPG) or Masyarakat Peduli Api (MPA) by relevant implementing ministries and agencies.
Activity 3.2.4: Promote the experience and best practice from sustainable peatland management, biodiversity conservation, alternative sustainable livelihood practices as well as the key systems for monitoring peatlands such as SIPPEG (see Output 3.3) in Indonesia to regional and international stakeholders through the ASEAN Peatland Management Initiative (APMI), International Tropical Peatland Centre (ITPC), Global Peatland Initiative as well as exchange visits and workshops. Key experience, systems and results should be showcased at international forums such as regional meetings or the conferences of parties to the UNFCCC or CBD.

Implementation Arrangements: This output will be implemented by the DPDC in conjunction with the information unit of MOEF (for Activity 3.2.2) as well as the ASEAN Peatland Management Initiative (APMI), International Tropical Peatland Centre (ITPC), Global Peatland Initiative (GPI) and other mechanisms with support from other stakeholders and a project Knowledge Management and communication (KMC) officer and consultants.

Output 3.3: Enhanced information system for monitoring of biodiversity in peatland ecosystems and RPPEG implementation. This output will support the further development and decentralisation of the national level Information System on Protection and Management of Peatland Ecosystem (SIPPEG)[54][54]. Under this Output, the Project will further strengthen this information system by incorporating information on RPPEG development and implementation as well as strengthen its ability to act as a decision support tool for peatland management at different levels ? from national to province to landscape/peatland hydrological unit.

Activities:
Activity 3.3.1: Further strengthen, maintain and monitor operation of SiPPEG to support and track implementation of the National RPPEG; This will cross-link to Output 1.1 on promoting and monitoring RPPEG implementation in the pilot/model landscapes (selective peatland hydrology unit/PHU). The integrated SiPPEG and SiDAK developed by IMPLI to enhance the peatland ecosystems with biodiversity (flora/fauna in the system). This integrated system will be used as a ?tool? to input all the biodiversity information collected by the community/key stakeholders in the landscape into the district/province levels.
Activity 3.3.2: Establishment of a decentralised unit of SiPPEG (from National to Province level) in West Kalimantan province. The SiPPEG is utilized to support planning, decision making and monitoring particularly on the sustainable peatland management in the Provincial and District RPPEG (linked to output 1.4).
Activity 3.3.3: Development of training modules on the use of SiPPEG, undertake Training of Trainers (ToT) in support of the newest version of SiPPEG targeting the provincial level trainees as well as other stakeholders at national level;

Activity 3.3.4: The utilization of the Integrated SiPPEG (and SiDAK: System Data & Information of Natural Resources Conservation [55][55]) in the pilot/model landscape in cooperation with the International Tropical Peatland Center (ITPC) to establish a ?sekolah lapangan/field school? that will be operated by a community group. (using the existing group whose has already developed a capacity on patrolling/fire-fighting etc). It will enhance the METT in each of national park.

Implementation Arrangements: This output will be implemented by the DPDC with support from project staff and Management Information system (MIS) experts in conjunction with different units in MOEF and The Environment and Forest Agency in West Kalimantan (for activity 3.3.2).

Output 3.4 Monitoring and Evaluation effectively implemented. In order to support the implementation, monitoring and reporting of the CoPLI project it is important that Monitoring and evaluation is conducted in a timely and affective manner

Activities:

Activity 3.4.1: Baseline assessment. The baseline assessment will gather key data to support the M&E programme and to enable measurement of key parameters which will be addressed through later project interventions. This will be focussed at the targeted landscapes in Component 2 as well as other parameters at the provincial and national level highlighted in the results framework.

Activity 3.4.2: Regular monitoring and reporting activities will be undertaken by the PMO and three LIUs in the targeted landscapes and will involve monitoring and reporting on progress on a quarterly basis according to the project activity frame. This will involve activities as elaborated in the M&E plan. The project will support targeted monitoring and tracking of activities including collation of gender disaggregated data.

Activity 3.4.3: Evaluation. The evaluation will include the regular annual supervision missions by IFAD, mid-term and terminal evaluations.

Implementation Arrangements: This output will be implemented by the PMO in coordination with the LIUs and supported by project personnel and consultants. Information gathering on activities supported through government co-financing will be supported by DPDC. A gender and social inclusion (GESI) tool will be developed as an M&E tool for project implementation as well as assessing the broader peatland management approaches. Gender-disaggregated data as well as stakeholder engagement levels will be collected and analysed for all relevant outputs and activities to enable enhancements to be made to ensure adequate gender and social inclusion

Alignment with Relevant GEF Focal Areas. The Project is aligned with and conforms to the following GEF strategies (see Table 2).

Table 2 Project Component Alignment with GEF FA Priorities

GEF-7 FA Priority	Expected FA Priority Activities	Project Component

BD-1-1 Mainstream Biodiversity	Spatial and land-use planning to ensure that land and resource use is appropriately situated to maximize production without undermining or degrading biodiversity. Improving and changing production practices to be more biodiversity-positive Developing policy and regulatory frameworks that remove perverse subsidies and provide incentives for biodiversity-positive land and resource use	1. Institutional framework for peatland and biodiversity conservation and development in Indonesia including Outputs 1.1 - 1.4 supporting increased capacity to implement RPPEGs at the national and sub-national levels Enhancing production practices on oil palm and forest management sectors to better incorporate protection and management of peatland ecosystems, including biodiversity, in the targeted landscapes in Component 2. Develop and promote incentives for biodiversity positive land and resource use in the targeted landscapes (in output 2.1 2.2. and 2.3)
BD-2-7 Protected Areas	Effective protection of ecologically viable and climate-resilient representative samples of the country?s ecosystems and adequate coverage of threatened species at a sufficient scale to ensure their long-term persistence; Sufficient and predictable financial resources available, including external funding, to support protected area management and identification costs; and sustained individual and institutional capacity to manage protected areas such that they achieve their conservation objectives. Site-based conservation and sustainable use; Sustainable financing of Indigenous peoples and local communities (IPLCs)-driven conservation; and Capacity development for IPLC organizations and integration of diverse knowledge systems to achieve conservation and sustainable natural resource management outcomes.	1. Institutional framework for peatland and biodiversity conservation and development in Indonesia including Output 1.3. which will support a strategy to mobilize financing to support RPPEG development and implementation of priority landscapes for conservation (i.e. protected areas) 2. Community-based management and conservation of targeted peatland landscapes including Outputs 2.1- 2.3 which will support improved management of two national parks and their respective landscapes and the empowerment and capacity building of communities to conserve forest and peatland biodiversity in targeted landscapes. Such activities will be implemented in the frame of village development planning which is the main tool for local resource allocations and will identify relevant investments needed to contribute to peatland conservation 3. Knowledge exchange and monitoring to support peatland protection and management including Outputs 3.2 establishing a knowledge exchange and communication programme; Component 2 will also integrate documentation of relevant indigenous practices (2.12 and 2.2.2)

Incremental Cost Reasoning. Despite the ongoing efforts of government in the business-as-usual (BAU) scenario, the degradation of forest and peatlands in Indonesia will likely continue apace leading to further loss of biodiversity and forest cover, disrupted hydrology, an increase in annual fires and associated large scale greenhouse gas (GHG) emissions as well as loss of community livelihoods and welfare. Government efforts related to peatland degradation and loss of biodiversity will likely continue to focus mainly on their development for socio-economic benefits, rather than taking into consideration the respective ecological and biodiversity aspects. Enforcement will continue to be ineffective in preventing degradation of forest and peatlands, and government expenditure on

subsequent impacts from clearing forests and peatland fire-fighting will continue to be allocated too late to prevent large-scale degradation. Development options for local communities provided by local and national government agencies will continue to be focused on traditional development options and not take into consideration the need for sustainable management of forest and peatland ecosystems. This in turn, will likely lead to the continued loss of the peatlands and forests due to their continued degradation with increasing incursions and encroachment of conservation areas, large-scale logging, clearance of forests and peatlands for large-scale plantations and mining operations.

Interventions from the Project are expected to significantly enhance multi-stakeholder partnership approaches linking the national, provincial and local governments from different sectors, communities and private sector to develop and manage forest and peatlands in a sustainable integrated manner. Partnership and co-finance are expected from both the private sector and local government, which are involved in the forest harvesting, production and land management sectors in the targeted districts and provinces. It will ensure lessons learned from demonstration and pilot testing of sustainable peatland management and the integration of biodiversity objectives elsewhere in Indonesia will help guide both national systems and well strategies and action in the targeted region of Indonesia.

The increment associated with GEF support, together with associated co-financing and other leveraged assistance, stems from the planned mainstreaming of biodiversity aspects into peatland forest management and regulations and planning, coupled with community engagement at PHU level and multi-stakeholder partnerships at the landscape level in West Kalimantan and subsequent upscaling to other provinces in Indonesia as well as increased resource mobilization and knowledge exchange. The Project will combine the conservation and livelihood dimensions of the equation in order to tackle the root causes of the biodiversity loss in peatland ecosystems. With the support of the GEF 7 resources, it is envisaged that enhanced levels of engagement and cooperation among stakeholders will take place and there will be more effective implementation of relevant regulations and more focus on prevention of forest and peatland degradation, resulting in improving biodiversity conservation status and reduced emissions at provincial, district and local levels. Overall with the GEF support, a more effective integrated sustainable forest and peatland management practices can be engendered especially in the vulnerable region of Indonesia which encompass biodiversity of global significance.

Global Environmental Benefits. Global Environmental Benefits (GEBs) from the Project would include: (i) conservation of peatlands and forests with globally significant biodiversity; (ii) sustainable use and management of forests and peatlands of globally significant biodiversity; (iii) conservation of rare, threatened and endangered species; (iv) improved provision of agro-ecosystem and forest ecosystem goods and services; and (v) conservation and sustainable use of biodiversity in productive landscapes. The Project is aligned with a number of the SDG (see Table 10) and IBSAP indicators. The project will contribute directly to nine targets and four goals of the recently adopted Kunming-Montreal Global Biodiversity Framework (see Table 11).

The project will contribute to both the conservation of biodiversity within the formal protected areas in the targeted landscape but also conserve or restore biodiversity outside of the protected areas in the production landscape as well as conservation areas established by the private sector, community and local government. It will also work to reduce the prevalence of peatland and forest fires in the landscapes which are one of the major causes for habitat loss. The management effectiveness will be enhanced of two national parks covering 235,437 Ha in the targeted landscapes. Management plans and

practices benefiting biodiversity will also be enhanced in a further 457,000 ha in the targeted landscapes

Two metrics to assess biodiversity impacts are (i) Mean Species Abundance (MSA) and (ii) an assessment of the Natural Capital, based on ecosystem service values for various ecosystems.[56][56] **Both indicators show a significant, positive impact of the project on biodiversity**. The Mean Species Abundance for the entire project area (including both landscapes) increased for both landscapes (by 0.34% for DSPL and 0.004% for GPSPPL). The surface area equivalent of the MSA value, measured as Area of Intact Biodiversity (AIB) increased by 837 ha. This increase can be interpreted as the corresponding value of biodiversity contained in 837 ha of a forest undisturbed by human activities. The average Natural Capital for the entire project area (including both landscapes) increased by 32 USD/ha, from a baseline value of 7,831 USD/ha to 7,863 USD/ha with the project (Annex 15 in IFAD Project Design Report ? PDR for further details.).

Regarding Global Environmental co-benefits of the project related to climate change mitigation, the estimated amount of carbon dioxide equivalent (CO2e) to be mitigated from the Project areas has been estimated to be -3,270,431 metric tons from direct measures over an accounting period of 20 years (5 years of implementation and 15 years of capitalization phase) (See Annex 8 in IFAD Project Design Report for further details.)

The adaptation co-benefits will include: (i) reduction of risk of floods and fire through enhanced management of peatlands and forest ecosystems; (ii) incorporation of climate adaptation aspects into the implementation of the RPPEG at national, provincial and local levels; and (iii) enhancement of community-based natural resource management and diversification of income sources resulting in increased resilience to potential climate-related shocks.

Innovativeness, Sustainability and Potential for Scaling-up. One of the main innovative aspects of the Project will be the pursuit of multi-stakeholder engagement in developing integrated approaches enhancing conservation of peatland and forest ecosystems and biodiversity. Community-based conservation requires engaging with, and providing benefits, for local communities in order to achieve long-term conservation objectives. In addition, the engagement of and coordination among multiple stakeholders from the local levels within the landscapes to the provincial and national levels, including local communities, private sector plantation companies, civil society, NGOs, research institutions, working in partnership with government agencies, particularly the Provincial Forest and Environment Agency, will be more effective compared to conventional sectoral approaches. The Project will work closely with the multi-stakeholder platforms at provincial level by incorporating key stakeholders related to environment, peatlands and forests, as well as promoting models for community development related to sustainable natural resource management.

The use of the peatland hydrological unit (PHU) as the key unit for planning and management is critical to ensure the long-term sustainability of the peatlands and their biodiversity, since maintaining the integrity of the PHU is essential to ensure a proper ecosystem approach based on the landscape and prevent fire and minimize degradation. The PHU encompasses all environmental characteristics in the peatland landscape, including soil, forest and freshwater biodiversity within the peatland ecosystem. According to Governmental Regulation P.14/2017 on Procedure for Inventory and Determination of

Peat Ecosystem Functions, the PHU approach implies conducting an inventory of 13 characteristics or parameters in order to define the peat ecosystem, including number 5: ?*keberadaan flora dan fauna yang dilindungi*? which translates into ?presence of protected flora and fauna?. This project will help strengthen the understanding around the importance of mainstreaming this parameter into the planning processes in the PHUs.

The Project will enhance institutional and financial sustainability for the management of peatlands in Indonesia. Given that the GEF-7 project, is a 4th generation project, following GEF-4 APFP, GEF-5 SMPEI and GEF-6 IMPLI, the Project will continue to build the sustainability of the work of the MoEF and related line entities at national, regional and district levels, focusing on the main issue still to be tackled and not covered in the previous projects i.e. peatland ecosystem and biodiversity conservation. The sustainability approach also involves strengthening the cross-agency partnership and collaboration with relevant Ministries, such as the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration (MoVDRT) and the Ministry of Agriculture (MoA). The design of the Project, as well as its implementation, will be informed by impact assessments, lessons learned and experiences from completed projects such as GEF-4 APFP and IFAD grant HFSLP, some of which are shown in Annexes 10 & 11 in IFAD?s Project Design Report, respectively. In addition, the Project will benefit from and build on the recently started GEF-6 IMPLI project, but also from knowledge exchange with Malaysia via south-south and triangular cooperation (SSTC) with the Sustainable Management of Peatland Ecosystems in Malaysia (SMPEM) Project, executed by the Malaysian Ministry of Natural Resources, Environment and Climate Change[57][57].

Specifically, the Project will support institutional sustainability through:

? Alignment and articulation with policy framework;

? Supporting and enhancing the implementation of the National Plan for Protection and Management of Peatland Ecosystems (RPPEG) 2020-2049 including development of a more detailed 5-year implementation plan and enhancing the capacity of different ministries and agencies to implement it as well as mainstreaming biodiversity considerations and landscape approach into the relevant regulations and plans;

? Linking closely with the implementation and review of the Indonesian national policies and strategies for CBD and UNFCCC;

? Linking with strategies, investment plans and capacity development related to the Nationally Determined Contributions (NDCs) and FOLU NET Sink-2030 for emission reductions for 2020-2030 under the Paris Agreement of UNFCCC;

? Supporting the collaborative work between Indonesia and other ASEAN Member States in the framework of the ASEAN Peatland Management Strategy (2022-2030); and

? Ensuring that peatland, forest and biodiversity conservation will be integrated into the work of local governments and the MoVDRT.

Specifically, the Project would support financial sustainability of interventions through:

? Development of a resource mobilisation plan for the RPPEG;

? Integrating forest and peatland conservation with the long-term financing strategy of the MoVDRT through the TEKAD project;

? Mainstreaming sustainable peatland management and biodiversity conservation into the mid-term and long-term national development planning frameworks, as well as in the internal budget planning processes of related ministries and agencies;

? Demonstrating effectiveness and efficiency of conservation, fire prevention and sustainable peatland management approaches at a landscape level in contrast to high current expenditures and economic losses on ineffective peatland firefighting, thereby building further awareness and commitments of required stakeholders and providing case for viable private investment ? rural financing options;

? Engagement with private sectors along different multi-stakeholders for a and fostering specific partnership and co-financing with private actors such as companies engaged in sustainable palm oil which recently released specific guidelines in peatland context;

? Enhancing capacity of the provincial and district level agencies related to peatland landscape management and peatland and biodiversity conservation in Indonesia;

? Building capacity of villages and local government to prioritise and invest in sustainable peatland management and conservation of peatland and biodiversity, and development of dedicated guidelines to support such efforts will also contribute to institutional sustainability;

Sustainability at the province and landscape level under Component 2 will be achieved through the following measures

? Integrating activities in the targeted landscape into the District and Provincial Protection and Management Plans for Peatland Ecosystems (RPPEG) which will be supported under Output 1.3.

? Developing specific landscape management plans for the two targeted landscape which will specify institutional arrangements for sustainability.

? Closely working with the respective district and provincial agencies working in the targeted landscapes.

? Developing or strengthening Multi-stakeholder partnerships including national, provincial and district agencies as well as private sector and NGOs in each landscape

? Strong engagement and empowerment of communities as a priority criterion for selection of pilot sites (including also absence of tenurial conflict and tenurial conditions conducive to community forest restorations) and mainstreamed in implementation which will include which will be include ?free and prior informed consent;?

? Strengthened capacities of smallholders and communities for peatland and forest management, as well as peatland and biodiversity conservation at the local village level will enhance the long-term sustainability, including through specific support to local nursery / seed banks and valorization of indigenous mechanisms.

? Strong attention to local capacity development and community ownership;

? Integrating activities into provincial and district development plans

? Ensuring that the alternative sustainable livelihood options introduced or supported through the project are economically viable and can be sustained and enhanced by local communities.

? Securing long term support of private sector plantations and other entities in the landscape to support action beyond the project period.

? The resource mobilisation plan developed under Output 1.4 will also address the issue of longer-term resource allocation at the district and landscape level and create solutions before the end of the project.

? The activities at the province, district and landscape level will be anchored in the implementation framework for the National Plan for Protection and Management of Peatland Ecosystems (2029-2049)

With respect to scaling-up, the Project will serve as a means through the piloting of methodologies and models to be scaled-up and replicated in other Indonesian provinces primarily through the TEKAD project in support of in Eastern Indonesia and the SAGU project in East Kalimantan and West Papua (under Output 2.3). The GEF7 project will closely link to the ongoing TEKAD project improving the abilities of village governments and communities to promote and implement inclusive and sustainable village economic development, supporting community-based natural resource management, biodiversity conservation and livelihood enhancement (for more detail on CoPLI-TEKAD complementarity see Annex 13 in IFAD Project Design Report).

Moreover, through Outputs 1.4 and 3.1, the Project would aim to strengthen partnerships and mobilize increased fund flow for conservation of forests, peatlands and biodiversity ? linking up and feeding into the regional ASEAN Investment framework for Haze-free Sustainable Land Management in Southeast Asia being developed under the IFAD-ASEAN regional programme MAHFSA.

Finally, knowledge exchange and communication supported under Output 3.2 will facilitate the transfer of knowledge and lessons learned under Component 2 related to sustainable livelihood development to

other districts and Provinces beyond the GEF7 project areas which will facilitate increased awareness and demand and uptake of similar approaches.

Based on lessons learned from the SMPEI supported by consultation with the district BAPPEDA, it is recommended that the elements for the Exit Strategy be considered at the beginning of project implementation. This is mainly due to the lengthy process associated with budget allocation which would be required to support continuation of selected activities following project completion. To ensure a smooth transition and increase chances of concordance with provincial and district development and planning departments it is recommended that the best means to achieve a synchronization/synergy of the selected project activities with department budget priorities is to ensure that they are in line with Key Performance Indicators (KPIs) of the relevant agencies i.e., that relevant departments/agencies could achieve their respective KPIs at the same time as achieving post-project indicators or targets addressing the protection of biodiversity and ecological functions of the PHU in the targeted landscapes.

The Project link with the planned village level activities identified in the Village Development Plans (VDP) that are revised each year on a rolling basis, as well the subsequent securing funds from the MoVDRT through its existing programmes including ?One Village One Product?. It is also planned that discussions be established with other key local government agencies e.g., Provincial planning Agency (BAPPEDA) and the Provincial Environment and Forestry Agency (*Dinas Lingkungan Hidup dan Kehutanan* - DLHK) who are the main coordinator and facilitator, respectively for provincial level RPPEG development and implementation.

The aforementioned elements to be included into CoPLI?s Exit Strategy should be tied to respective project component as activities are targeting different level administrative levels and stakeholders (Table 3).

Table 3. Project Component and Selected Activities in Support of CoPLI?s Exit Strategy.

Component	Activities
Component 1: Institutional framework for peatland and biodiversity conservation at national and provincial levels	- enhancing coordination and monitoring of implementation of RPPEG at national level and building capacity of different ministries and agencies to support RPPEG implementation. - RPPEG for provincial and district levels development and implementation of tracking tool, - increase area of protected habitat within PHUs through inclusion of social forests and/or other means such as National Park Extensions and/or designation of Essential Ecosystem Areas (KEE). - development of resource mobilization strategy for the RPPEG implementation and secure sustainable financing to implement the national, provincial and/or district levels RPPEG

Component 2: Community-based management and conservation of peatland systems in targeted landscapes	- enhancing coordination and monitoring of implementation of RPPEG at provincial and district levels and building capacity of different agencies and stakeholders to support RPPEG implementation. - documentation of existing good livelihoods and community-based peatland and forest management for scaling-up; - Engagement and capacity development of selected communities, - sustainability and replication strategy or a capacity development plan to replicate the livelihoods generating activities, agro-forestry/sustainable production practices; and improved village planning contributing to peatland and biodiversity conservations - fire prevention strategy or Standard Operating Procedure (SOP) for fire-prone areas within the PHUs (at least to make sure there is Community-based Fire Brigade (Masyarakat Peduli Api, MPA) with appropriate fire-fighting equipment. - engage with Annual budget allocation from Village Development Plans to help replication good livelihoods and support maintenance costs of facilities being supported by the project
Component 3: Knowledge exchange, communication and monitoring to support peatland protection and management	- establishment/enhancement of multi-stakeholder platform for government, private sector, Civil Society Organisations (CSOs) including NGOs and Community?based Organisations (CBOs) for sustainable management of the landscapes and improved landscape management; - recognition of successful community-based forest and peatland biodiversity conservation activities at provincial and national levels through award incentives (such as Climate Village Programme (*Program Kampung Iklim*, Proklim by DG of Climate Change Control of MOEF), Fire-Free Village Programme (*Desa Bebas Asap* by private sector) or Role Model Village (or Demonstration Village with Good Practices); - demonstrate progress through the development/enhancement of periodical census for biodiversity indicators in the targeted landscapes; and - develop/improve implementation of community?s citizen science programme by integration of METT and SMART Patrol tools in local monitoring programmes.

[1]To facilitate the implementation of its social forestry program, the Indonesia government intends to allocate a total of 12.7 million ha of state forests for management by local communities through five separate schemes, namely: Community Forests (*Hutan Kemasyarakatan*, HKm), Village Forests (*Hutan Desa*, HD), Community Plantation Forests (*Hutan Tanaman Rakyat*, HTR), Forestry Partnerships (*Kemitraan Kehutanan*), and *Adat* Forests (*Hutan Adat*, HA). Meanwhile, private-sector supported Fire-free Village (*Program Desa Bebas Api*) programs have been established in 218 villages.

[2]https://www.tropenbos.org/news/joint+management+of+the+essential+ecosystem+area+orangutan+corridor+in+west+kalimantan,+indonesia+will+guarantee+protection,+preservation+and+sustainable+use+of+the+area

[3] http://www.aseanpeat.net/site_nomination_view.cfm?sid=47

[4] ibid

[5] GPSPPL population as estimated in the 2021 Management Plan was derived from population at Sub-District level as compared to DSPL that was generated at village level in 2015.

[6] Lowland forest loss in protected areas of Indonesian Borneo. *Science.* 2004; 303: 1000-1003

[7] https://regional.kompas.com/read/2020/01/29/16535721/menjaga-populasi-dan-habitat-orangutan-di-lansekap-sungai-putri-taman?page=all

[8] The effect of proximity to forest on bee visit frequency to six plant species in an oil palm landscape in Borneo. https://nmbu.brage.unit.no/nmbu-xmlui/bitstream/handle/11250/2576593/CandiceFinalMaster.pdf?sequence=1&isAllowed=y

[9] Hendra Eka Wahyudianto. (2021) Economic Growth and Poverty in West Kalimantan. *Forum Analisis Statistik.*

[10] Giesen and Aglionby, 2000.

[11] Global Forest Watch, accessed April 2022

[12] https://factsanddetails.com/indonesia/Places/sub6_10g/entry-6815.html

[13] H. Hidayat, Siti Aisyah, Riky Kurniawan, Iwan Ridwansyah, Octavianto Samir, Gadis Sri Haryani. 2020. Flood Pulse and Aquatic Habitat Dynamics of The Sentarum Floodplain Lakes Area. Hidayat et al. / Indonesian Journal of Limnology, 2020, 1(1): 27-37.

[14] Santoso and Haryanto 1998, Jantop TNI AD 1974, 1975 cited in DSNP Management Plan 2016-2025

[15] Lusiana B, Widodo R, Mulyoutami E, Nugroho DA and van Noordwijk M. 2008. Assessing Hydrological Situation of Kapuas Hulu Basin, Kapuas Hulu Regency, West Kalimantan. Working Paper No. 57. Bogor, Indonesia. World Agroforestry Centre. 67 p.

[16] Comte, I., Colin, F., Whalen, J. K., Gr?nberger, O., & Caliman, J. P. (2012). Agricultural practices in oil palm plantations and their impact on hydrological changes, nutrient fluxes and water quality in Indonesia: a review. Advances in Agronomy, 116, 71-124 - 2012.

[17] Nurul Ihsan Fawzi, M. Ari Wibawanto, Mahardika Putra Purba. 2020. Analisis perubahan tutupan hutan di taman nasional gunung palung menggunakan penginderaan jauh (Analysis of Forest Cover Change in Gunung Palung National Park using Remote Sensing). Jurnal Tengkawang. Vol. 10 (2): 75 ? 88.

[18] *Ibid*.

[19] NI Fawzi, J Helms, A Emerson and MA Wibawanto (2020) Forest restoration progress and lessons learned in Gunung Palung National Park, Indonesia. Journal of Tropical Forest Science Vol. 32, No. 2 (2020), pp. 195-205

[20] Nurul Ihsan Fawzi, M. Ari Wibawanto, Mahardika Putra Purba. 2020

[21] Dillis et.al. 2017

[22]https://factsanddetails.com/indonesia/Places/sub6_10g/entry-6815.html accessed 21jan2022

[23] (H. Hidayat et.al. 2020).

[24] https://www.thefreelibrary.com/After+the+conservation+project%3A+Danau+Sentarum+National+Park+and+its...-a093827530 accessed 21 Jan 2022).

[25] Partomihardjo et al. 1998 cited by DSNP Mgt Plan 2016-2025

[26] https://factsanddetails.com/indonesia/Places/sub6_10g/entry-6815.html accessed 21jan2022)

[27] https://factsanddetails.com/indonesia/Places/sub6_10g/entry-6815.html accessed 21jan2022

[28] https://factsanddetails.com/indonesia/Places/sub6_10g/entry-6815.html accessed 21jan2022.

[29] Webb, C. O., & Peart, D. R. 2000 cited in GPNP Mgt Plan 2022-2031.

[30] H. Hidayat, Siti Aisyah, Riky Kurniawan, Iwan Ridwansyah, Octavianto Samir, Gadis Sri Haryani. 2020. Flood Pulse and Aquatic Habitat Dynamics of The Sentarum Floodplain Lakes Area. Hidayat et al. / Indonesian Journal of Limnology, 2020, 1(1): 27-37.

[31] Rosalinda, E. (2019) Economic valuation of the Danau Sentarum National Park, West Kalimantan, Indonesia. https://smujo.id/biodiv/article/view/3938

[32] *Ibid.* Hidayat.

[33] GDI in West Kalimantan in 2018, 2019 and 2020 are 86.74, 86.81 and 86.87, respectively. Whilst GDI for the whole Indonesia in the same years are 90.00, 91.07 and 91.06, respectively. (Source: National Statistic Agency/BPS, 2021)

[34] *Ibid*. page 20

[35] *Ibid*.

[36] GEF-7 Project Identification Form (PIF), 2021.

[37] White. *Op.Cit*. p.29

[38] Interview with AMAN-Putusibau. 17 March 2022.

[39] Village meeting in Batu Lumpar District on 21 March 2022.

[40] The 5 duties of women are (i) Be loyal partners to husbands, (ii) procreate for the nation, (iii) educate and guide children, (iv) regulate the households, and (v) be useful members of society.

[41] Wieringa, S. E. (1993). Two Indonesian women's organizations: Gerwani and the PKK. Bulletin of Concerned Asian Scholars, 25(2), p.26.

[42] Interview with FFI on March 23 2022.

[43]This is likely to increase as a resulut of increasing global demand for vegetable oils. See MoEF, 2015. Indonesia - Land Degradation Neutrality National Report. (Ministry of Environment and Forestry, Jakarta).

[44] to parallel the timeframe of the government 5-year Medium-Term Development Plan

[45] See Jones,I, MacDonald A, Hopkins S et al (2020) Improving rural health care reduces illegal logging and conserves carbon in a tropical forest Proc. Natl. Acad. Sci. U.S.A.
DOI: 10.1073/pnas.2009240117

[46] Including a target to reduce the expansion of oil palm into peat swamp forest to the northwest of DSNP by at least 300ha from BAU.

[47] With a target of a reduction of area cleared /drained by local communities for expansion of agriculture and plantations of 500ha.

[48] With a target to reduce the extent of peatland fire through fire prevention and natural regeneration of at least 150ha

[49] PT MKI is a company that holds a long-term concession for logging of a large portion of the Sg Putri Peatlands and had dug a large drainage and log extraction canal though the forest leading to drainage and fires, but has now been taken over by YIARI and is in the process to convert its logging concession to an ecosystem restoration concession.

[50] With a targeted reduction of at least 500ha in area of peatlands burned.

[51] Including encouragement of agroforestry with fruit and timber trees on at least 1,150ha of former rice, annual crop growing or degraded areas on mineral soil and 900ha in peatland.

[52] Supporting enhanced water management for 1,500ha of agriculture and plantations on peat.

[53] An important peatland landscape in East Kalimantan that has similarities to Danau Sentarum Peatland Landscape, but has no formal protection status and has suffered serious degradation from fires.

[54] Developed by MOEF with support of IFAD-GEF5 Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI) project. It functions as a key national monitoring, planning and reporting tool for sustainable peatland management. It has been integrated with SIPONGI[54] and SiMATAG-0.4m[54] for the fire early warning system. When completed, it will have 4 additional supporting systems: (i) Index Quality for Peatland Ecosystem, (ii) Water balance, (iii) Greenhouse Gas (GHG), (iv) monitoring & law enforcement (WASGAKUM) and (v) company performance rating (PROPER). The GEF 6 IMPLI project will link SIPPEG with SiDAK (Sistem Informasi Data Konservasi ? System Information for Data Conservation) established by the DG Natural Resources and Conservation. The CoPLI project will build on the version developed with IMPLI support and establish

new elements related to development and implementation of Peatland Ecosystem Protection and Management Plans (RPPEG) at national, provincial and district levels as well as piloting a decentralized version at province level.

[55] established in 2018

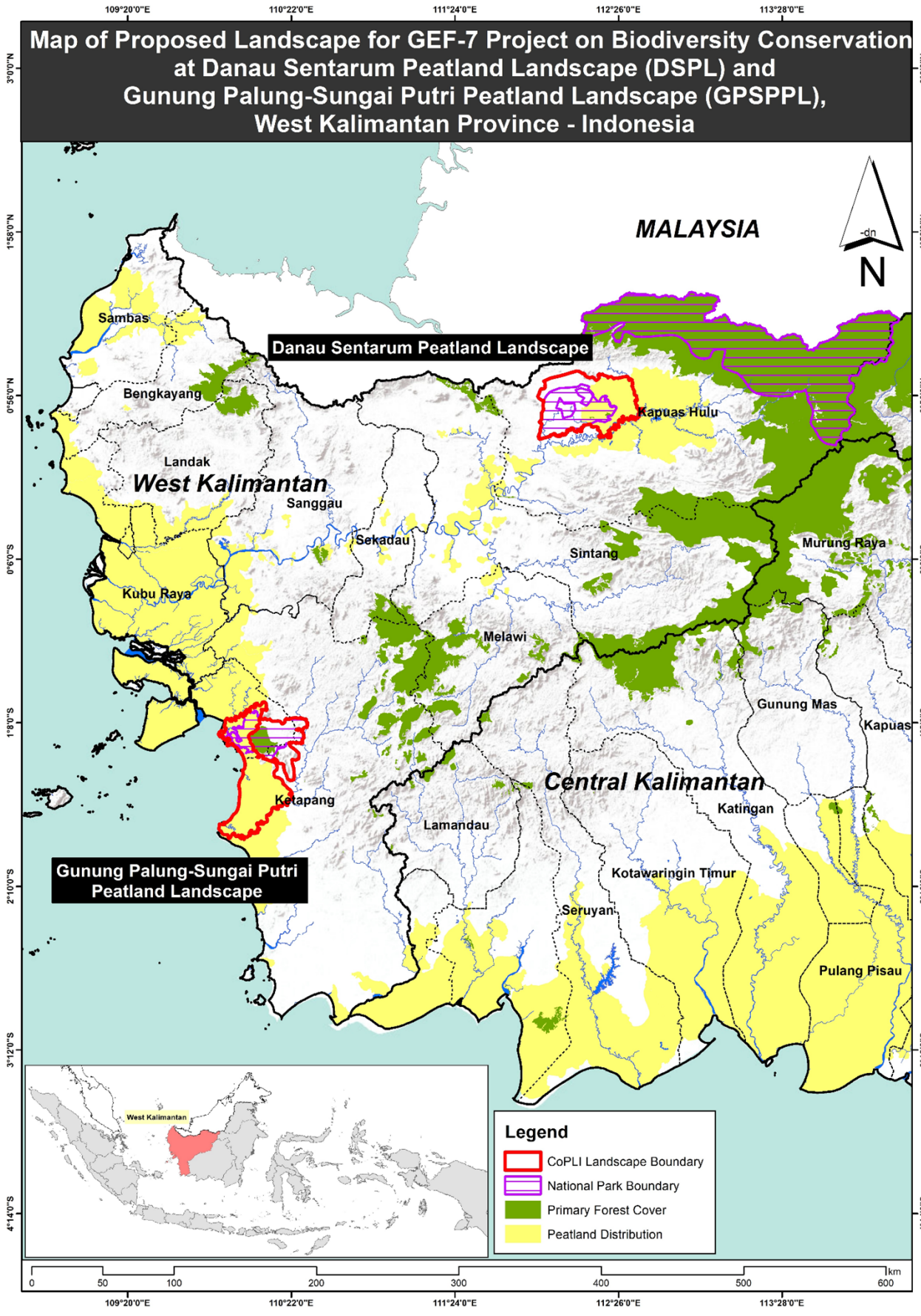
[56] While it is important to note that there is no single indicator for biodiversity impact measurements, FAO's Adaptation, Biodiversity and Carbon-Mapping Tool (ABC-Map) proposes two indicators, which cover two important parts of biodiversity, namely, biodiversity intactness and ecosystem service flows. See Annex 15 in IFAD?s Project Design Report for further details.

[57] Formerly Ministry of Energy and Natural Resources (KeTSA)

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

The Project will work at the national and sub-national levels in Indonesia. In the latter, the potential identified project areas will encompass peatland biodiversity ?hotspots? inside and in proximity to two national parks in the two peatland Landscapes in West Kalimantan Province, as well as potential scaling up to other districts in Indonesia via the complementary TEKAD project and other relevant projects. Specifically, site level actions are expected to take place mainly in and around: (i) the Gunung Palung Sungai Putri Peatland Landscape (GPSPPL) in the North Kayong and Ketapang Districts and (ii) Danau Sentarum Peatland Landscape (DSPL) in Kapuas Hulu District. The respective geolocation ID numbers are: (i) Gunung Palung NP is 20,378 and the landscape is located 01? 03?- 01 ?22? South & 109? 54? ? 110? 28? East and (ii) Danau Sentarum NP is 317,259 and the landscape is located 0? 39' 20? - 1? 5' 20? North & 111 ? 55' 10? - 112 ? 36' 20? East (source: www.protectedplanet.net). See Figures 2 - 4 below for more detail (additional detail on GPNP and DSNP can be found in Annex 12 in IFAD?s Project Design Report).


Map of Proposed Landscape for GEF-7 Project on Biodiversity Conservation
at Danau Sentarum Peatland Landscape (DSPL) and
Gunung Palung-Sungai Putri Peatland Landscape (GPSPPL),
West Kalimantan Province - Indonesia
MALAYSIA
N
Danau Sentarum Peatland Landscape
Gunung Palung-Sungai Putri
Peatland Landscape
West Kalimantan
Central Kalimantan
Sambas
Bengkayang
Landak
Sanggau
Sekadau
Kubu Raya
Ketapang
Kapuas Hulu
Sintang
Melawi
Murung Raya
Gunung Mas
Kapuas
Katingan
Lamandau
Kotawaringin Timur
Seruyan
Pulang Pisau
109°20'0"E
110°22'0"E
111°24'0"E
112°26'0"E
113°28'0"E
3°0'0"N
1°58'0"N
0°56'0"N
0°6'0"S
1°8'0"S
2°10'0"S
3°12'0"S
4°14'0"S
West Kalimantan
Legend
CoPLI Landscape Boundary
National Park Boundary
Primary Forest Cover
Peatland Distribution
0
50
100
200
300
400
500
600
km

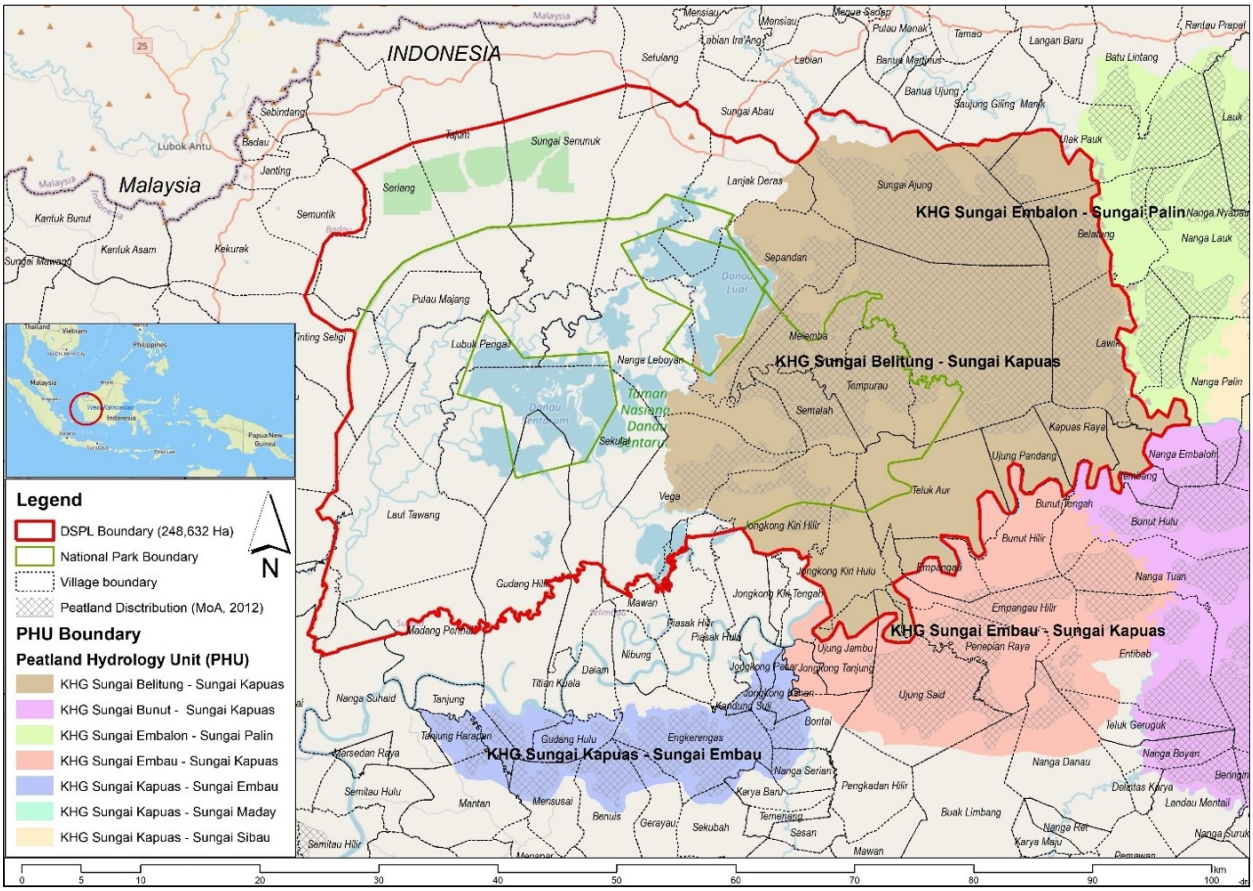


Figure 3: Map of Danau Sentarum Peatlands Landscape (DSPL). (Source: Directorate General for Pollution and Environment Degradation Control-MOEF, 2022).

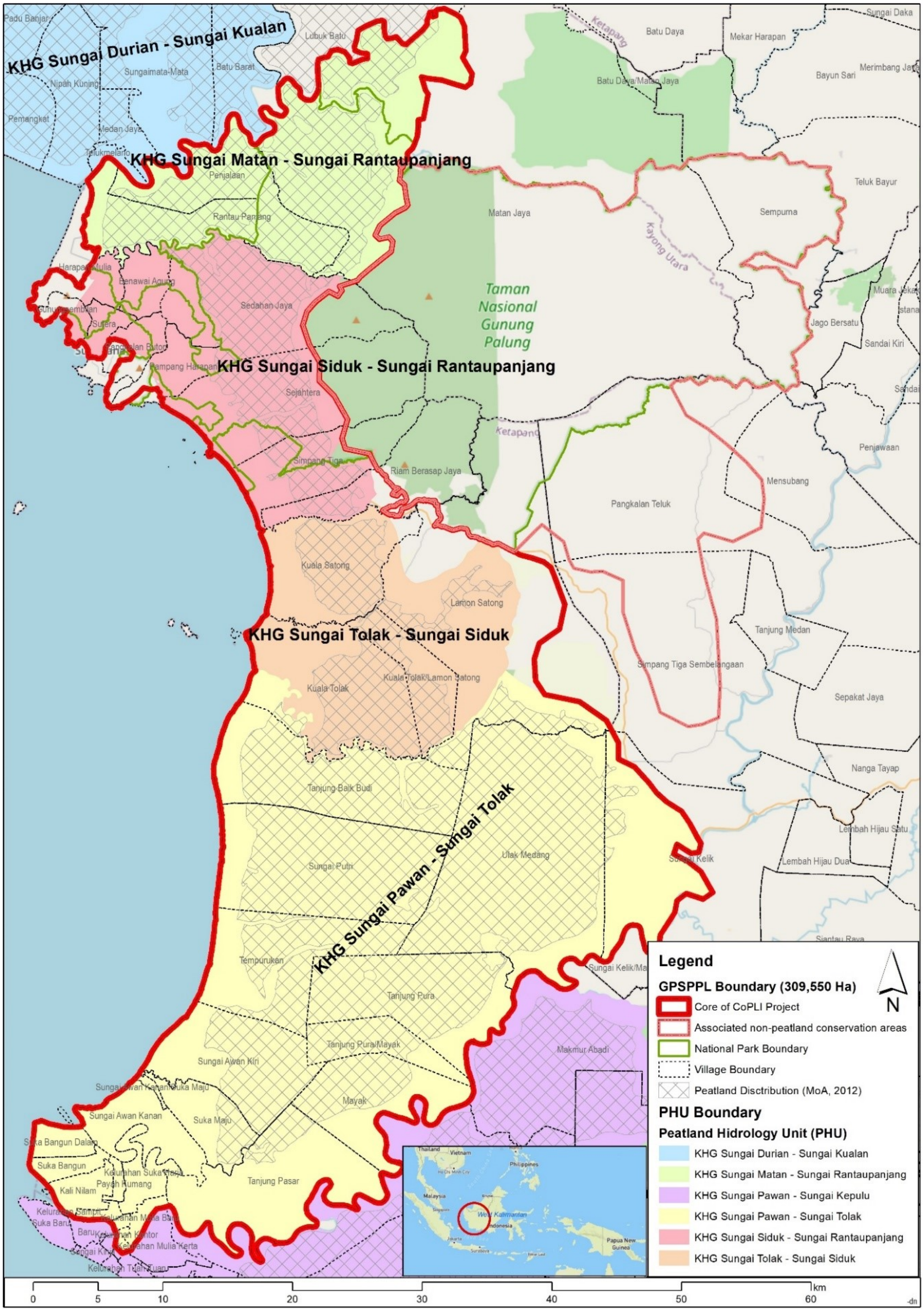

KHG Sungai Durian - Sungai Kualan
KHG Sungai Matan - Sungai Rantaupanjang
KHG Sungai Siduk - Sungai Rantaupanjang
KHG Sungai Tolak - Sungai Siduk
KHG Sungai Pawan - Sungai Tolak
Taman Nasional Gunung Palung
Ketapang
Batu Daya
Mekar Harapan
Sungai Daka
Bayun Sari
Batu Daya/Matan Jaya
Teluk Bayur
Sempurna
Matan Jaya
Kayong Utara
Jago Bersatu
Sandai Kiri
Penjawaan
Mensubang
Pangkalan Teluk
Tanjung Medan
Simpang Tiga Sembelangaan
Sepakat Jaya
Nanga Tayap
Lembah Hijau Satu
Lembah Hijau Dua
Sungai Kelik
Riam Berasap Jaya
Simpang Tiga
Sejahtera
Sedahan Jaya
Benawai Agung
Pampang Harapan
Rantau Panjang
Penjalaan
Kuala Satong
Lamon Satong
Kuala Tolak
Kuala Tolak/Lamon Satong
Tanjung Baik Budi
Sungai Putri
Ulak Medang
Tempurukan
Tanjung Pura
Tanjung Pura/Mayak
Sungai Awan Kiri
Mayak
Suka Maju
Sungai Awan Kanan
Suka Bangun Dalam
Suka Bangun
Kali Nilam
Tanjung Pasar
Makmur Abadi
Legend
GPSPPL Boundary (309,550 Ha)
Core of CoPLI Project
Associated non-peatland conservation areas
National Park Boundary
Village Boundary
Peatland Disctribution (MoA, 2012)
PHU Boundary
Peatland Hidrology Unit (PHU)
KHG Sungai Durian - Sungai Kualan
KHG Sungai Matan - Sungai Rantaupanjang
KHG Sungai Pawan - Sungai Kepulu
KHG Sungai Pawan - Sungai Tolak
KHG Sungai Siduk - Sungai Rantaupanjang
KHG Sungai Tolak - Sungai Siduk
N
0 5 10 20 30 40 50 60 km

Figure 4: Map of Gunung Palung- Sungai Putri Peatlands Landscape (GPSPPL). Source: Directorate General for Pollution and Environment Degradation Control-MOEF, 2022.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Stakeholders are those who have potential to be engaged in the project as partners for implementation as well as those that may be affected by the Project due to positive or negative impacts or risks on their physical environment, health, safety, cultural practices, well-being, or livelihoods**.** A situational analysis was conducted during the design mission, coupled with more than 40 different consultation meetings with more than 200 representatives of various stakeholder groups across levels (national, provincial, district/sub-district down to the site level). See Annex 5 of the PDR for the list of stakeholders consulted during the design process. These stakeholder meetings as well as the extensive site visits made in the two targeted landscapes revealed key information which was essential for the effective detailed design of the project including:

- ? The current status of key policy frameworks at national, provincial and local levels;
- ? The current capacity needs and gaps of targeted agencies in relation to peatland management and sustainable use;
- ? Key challenges, barriers and drivers related to protection of peatland and forest biodiversity;
- ? The status of implementation of national regulations on peatland management;
- ? The role of different agencies the national, province, district and local levels in relation to forest and peatland management;
- ? The conservation status of the two targeted landscapes as well as major threats and challenges;
- ? The status of ongoing and planned projects and activities relevant to the targeted landscapes and at national level;
- ? The population, income, welfare and dependence on natural resources of the local communities in the targeted landscapes;
- ? The status and threats to biodiversity in the targeted landscapes;
- ? Indigenous peoples living in the targeted landscapes and their dependence on natural resources and potential for engagement in the project;
- ? The institutional arrangements for the local government at district level in the targeted landscape;
- ? National park management and challenges;
- ? Previous or ongoing measures for peatland protection and rehabilitation;
- ? Private sectors engagement in-collaboration with the local communities;

? Village land use planning (VLUP) conducted by some villages as lessons learned to be extrapolated into the landscape;
? Lessons learned from prior and ongoing projects;
? Opportunities for partnership and co-finance for the project.

All this information from the stakeholder consultations was used in the project development and design. National stakeholder meetings at the kick-off and conclusion of the design mission were key to guiding the design and to secure stakeholder consensus on the key components, outputs and institutional arrangements for the project.

Identified stakeholders for the Project are presented in Table 4 along with the assessment made along with their roles, current and/or potential:

Table 4. Stakeholder Identification and Assessment

#	Stakeholder Group	Interest in CoPLI	Degree of Influence on CoPLI	Role/Potential Role in the Project Implementation
1	Ministry of Environment & Forestry (DG of Pollution & Environmental Degradation Control)	High	High	Lead project implementation & develop policy guidelines as well as lead process for implementation of RPPEG at national level and guide and support actions in province and targeted landscapes
	Ministry of Environment & Forestry (DG of Nature Conservation & Ecosystems)	High	High	Key partner in the project implementation to facilitate engagement of national parks and support conservation of biodiversity
	Ministry of Environment & Forestry (DG of Forest Management and DG Social Forestry)	Medium	High	Key partner to help integrated peatland management and protection into their respective portfolios as well as support the interventions at landscape level
	Ministry of Agriculture, Ministry of Villages, Disadvantaged regions and Transmigration, Ministry of Public Works and other ministries at national level	Medium	High	Key agencies in the national level implementation of the RPPEG and integrating conservation of peatland ecosystems into other sectors and regions..
	National Parks: Danau Sentarum-Betung Kerihun National Park & Gunung Palung National Park	High	High	Key partner in Project implementation in the two national parks in the targeted landscapes
2	BRGM (Peatland & Mangrove Restoration Body at national and site levels)	Medium	Medium	Coordinating body for policy and project implementation in key areas

#	Stakeholder Group	Interest in CoPLI	Degree of Influence on CoPLI	Role/Potential Role in the Project Implementation
3	**Provincial Government Units:** West Kalimantan (BAPPEDA: Planning Agency) Environment and Forestry Agency (DLHK)	High	Medium	? Provide province-level strategic direction leadership & strengthen cooperation among stakeholders at regency level ? Initiate and lead communication about peatland policies in accordance with all regulations at the province and regency level
	Provincial nature conservation agency BKSDA (Manage conservation areas outside the Parks) West Kalimantan	Medium	Medium	? Provide technical guidance in the development and conduct of monitoring, evaluation, and learning mechanisms of the project and support the work on wildlife corridors in the two landscapes
	Kapuas Hulu, Kayong Utara & Ketapang Regencies (BAPPEDA: Planning Agency/District Environment Agencies - DLH)	High	High	? Lead the Project?s strategic direction at the regency level, ensuring that peatland policies are developed (RPPEG) & implemented in accordance with regency development plans. ? Strengthen cooperation with local government agencies & local stakeholders to align with regency development planning ? Partner for capacity building activities to ensure all stakeholders align with project objectives ? Technical oversight on the design of livelihood support projects & coordination with local stakeholder
	Community & Village Empowerment Office (DPMD) in Kapuas Hulu, Kayong Utara & Ketapang Regencies	Medium	Medium	Provide technical support on the design, implementation, and coordination of livelihood assistance initiatives with local stakeholders.
	Forest Management Unit (KPH) ? local government body at province and regency level (outside park and conservation areas)	High	High	Oversee the management of the forests in the landscapes outside of the protected areas and work with communities on community forest management issues
	Village Government Unit	High	Medium	Provide assistance to the project implementation unit and project beneficiaries to align with village development program, and facilitate project implementation in the project areas

#	Stakeholder Group	Interest in CoPLI	Degree of Influence on CoPLI	Role/Potential Role in the Project Implementation
4	Community/village groups (sectoral): ? Farmer/fisher groups (includes NTFP & LPHD[1]) ? Indigenous Peoples ? Women?s Groups	High	Low	Project beneficiaries/Target groups participating in project activities, exchanging information with other stakeholders, and access to project benefits.
5	AMAN, NGOs/CSOs (Yayasan International Animal Rescue Indonesia (YIARI), Yayasan Palung, Yayasan Asri, Tropenbos Indonesia (TBI), Fauna and Flora International (FFI) and Earth Equalizer)	High	Low	Support for management strategy development for the targeted landscapes Provide assistance to the IPs and other community groups; facilitates FPIC in the project areas; Potential partner as facilitator and monitoring unit.
	Public Fora (SAGUPA: Sahabat Gunung Palung), Indonesia Palm Oil Growers association (GAPKI)), and Roundtable on Sustainable Palm Oil (RSPO)	High	Medium	Promote knowledge management on key project interests
6	Private sector; ie oil palm plantations in the targeted landscapes	High	High	Active partners in the conservation of biodiversity outside of the National parks ? especially in the GPSPPL.

The targeting strategy commenced with geographic stakeholder analysis (See CoPLI SEP Annex 5 in the IFAD Project Design Report) that was replete with meaningful consultations at the site level that resulted to the identification of community/village groups as target groups, comprised of farmers, fisherfolks, indigenous peoples and women as possessing the lowest degree of influence for the project despite high levels of interest. Target groups are marginalized in terms of poverty, health and nutrition, and ethnicity yet they are key to resource utilization and management within CoPLI target areas.

Poor Farmers-Fisherfolks. In West Kalimantan, those living below the poverty line are still quite large at around 367,000 people or approximately 7.17% in 2020 (National Socio-Economic Survey (Susenas) conducted by BPS). The poor population at the province and site levels are slightly lower than the national figure of 9.8%. However, there exist districts and villages with higher poverty rates.

Common farming activities in West Kalimantan include planting of rice and vegetables for subsistence and selling. However, due to low rice productivity caused by high rainfalls and floods, and growing palm oil plantations, locals are left to buy rice (Purwanto, 2018) and sell their lands (Nurliza, et.al., 2017). The Bureau of Statistics in Kupuas Hulu even reported the decline of 268 hectares to 70 hectares of rice production area in the region. The majority of rice farmers in West Kalimantan belong to the Melayu group.[2] The Dayak indigenous people?s communities are known to practice swidden farming on mineral soils, that involves rotational land clearing using slash and burn technique (*tebang dan bakar*). Due to uncontrolled large forest and peatland fires in 2015, a ban on burning activities was imposed nation-wide, affecting fire-dependent communities (Daeli, et.al., 2021). Rubber plantations have also been a common livelihood but prices have been unstable[3] coupled with low yielding local

rubber seedlings and high rainfall. Due to the low rice productivity and unstable rubber prices, most populations in the Danau Sentarum Peatland Landscape chose to revert to fishing activities as a livelihood[4].

Fishing has been an activity by about 80% of locals, mostly Malays, for subsistence or for sale, catching various types of fishes from lakes and rivers.[5] Fishing practices are bound by adat rules, regulating the kind and sizes of fishes to be caught and access and tenure of lakes, rivers, and swamps. Fisheries activities include fishing in the lakes and rivers, fish farming, and fish processing. Illegal fishing and exploitative fishing with fishing and fishing trawls are present in the Danau Sentarum landscape. However, community reserves were found to be effectively managed by strict implementation and application of traditional institutions restricting certain gears and seasons for fishing.

Indigenous Peoples. Terms used in laws in Indonesia for identifying indigenous peoples include: *masyarakat suku terasing* (isolated tribal communities), *masyarakat tertinggal* (neglected communities), *masyarakat terpencil* (remote communities), *masyarakat hukum adat* (customary law communities) and, more simply, *masyarakat adat* (communities governed by custom). AMAN[6] adopts the term *masyarakat adat* because it is neutral and implies no negative connotations as well as comprehensive enough to apply for various characters of the Indigenous Peoples. The names of the community groups with distinct social political systems vary among regions, in interior Kalimantan they are referred to as ?*Banua/ Binua/ Ketemenggungan/ Balai/ Lowu/ Le*wu?)***[7]**. The indigenous peoples that inhabit the two landscapes are the Dayak and Malay.

Since time immemorial, Dayaks have had a strong reliance on forest resources thus shaping their culture and lifeways (Crevello, 2004). Dayaks have a close relationship with nature, considering it as not just a source of food and materials but also sacred (Siombo, 2021), having other gods or rulers for the land (Kama Baba) and water (Raja Juata) (Darmadi, 2017). Specific to the Dayak Iban of DSPL, they have *Semugah Raja Tanah*, *Pulang Gana Raja Sua* is the ruler of the land, and *Sengalang Burung Pinang Ipong*, ruler of the sky.[8]

For the Dayak, ownership of a specific land area falls under an adat law unit called *binua* (by the Kanayan group), *manoa* (Iban) or *banua*. The concept of a *banua* is geopolitical. Within the borders of the *banua* there is property with assets in the form of natural resources. The people living within a *banua* are governed by a set of adat rules (laws), and individuals are chosen by the people to enforce these rules. The method of land use management within a *banua* can be compared to a collective, indigenous integrated farming system. Land, for the Dayak Iban,[9] is dedicated to rice cultivation traditionally maintained, along with gardens, and rubber plantations. The Iban does not practice moving agriculture but on farm rotation, returning to a farmland after every 15 years.[10] The village chief and customary leader during a village meeting will determine and assign lands to farm. Women and men farm equal land sizes. In the month of May, a ritual is performed in the beginning of farming and harvest called *Nike ke Beneh* (literally means raising rice seeds indicating time to plant). *Muja Menua*, on the other hand is worshiping the land, with the aim that the soil provides fertility resulting to abundant agricultural produce, kept away from pests and plant diseases.

The Dayak agroforestry system practiced on the periphery of DSNP has resulted in a mosaic of habitats, consisting of slash and burn patches (often in various stages of regrowth) and forest areas preserved for various purposes. The latter may be preserved for religious purposes, an abundance of

honey trees, unfavorable soils conditions (e.g. many boulders), or an abundance of fruit trees industries (Giesen and Aglionby, 2000). The existence of these people is reflected in the forest through oral history, traditional knowledge and well-defined and detailed customary tenure regimes by which all indigenous peoples delineate their traditional territories. In relation to forest management, customary laws are designed and enforced to ensure sustainability and communal well-being. These customary forest laws commonly govern ownership (individual, collective, communal), designation (forest use) and other aspects related to human interaction with forests. That is why, under customary laws, forests have been free from outside intervention, including from local and regional businesses.

The Malays or *Melayu* are coastal peoples of Indonesia and Malaysia, most having common ancestry with Dayaks but converted to Islam and settled in Malay villages (Salafsky, 1994). Malays in the area who have been practicing traditional forest use have privileges in using the forest compared to immigrants. As muslims, their religion and culture limit their capture of wildlife so hunting for sustenance is a taboo but killing for survival is accepted (Yuliani, et.al., 2018). Non-Malays such as the Balinese and Javanese sometimes purchase their user rights of a forest area from the Malays (Yoshikura, et.al., 2018).

All Malay villages maintain strong ties with larger Malay towns along the Kapuas River. During religious festivities or censuses, for example, Malay villages in the DSNP are largely deserted, as most inhabitants move back to their ancestral town along the Kapuas River to join relatives. According to Giesen and Aglioby (2000), in order to cope with the rise and fall of water levels, houses are generally built on poles or float on rafts of timber.

Malay economies in DSNP rely mostly on fishing. During high levels of water, fishing is only conducted for subsistence purposes but on the onset of the dry season (June), fishing activities start to pick up. Each Malay village has a head fisherman, *ketua nelayan*, who presides community fishing activities and assures proper and responsible practices. Other Malay practices are swidden farming (*ladang*) of crops like cassava, maize, eggplant, cucumber, beans, and chilies, harvesting of honey and wax, and harvesting of timber for the construction of houses, walkways, cages, boats, etc. A variety of plants found in the swamp forests and lakes of the Park are also being extracted by Malays for food and medicinal purposes.

Women/Women?s Groups. Key gender issues across administrative units down to the site level are:

- ? Lack of consistent quantitative gender data and information imperative for the formulation of programs and activities;
- ? Land rights: men and women do not enjoy the same rights to land; there is strong tendency for land to be registered in the name of the man and land inheritance rights are governed by Islamic law in the case of Muslims and by the Civil Code (1847) in the case of non-Muslims.
- ? Restricted access of women to decision-making and informal justice; traditional custom practices weakened women's political position, perpetuating the patriarchal structure within the community and barriers preventing women from accessing justice as *adat* leaders are generally ascribed to males;
- ? Increasing dependence on cash economy for daily needs: The decrease in available agricultural land and the depletion of local food products as the result of forest destruction have shifted the pattern of food acquisition and consumption. Women are inclined to seek for

alternative/additional household income and there is noted incidence of STD with women employed in cafes that offer commercial sex with concession workers; and

? Inequality in household labor allocation due to decrease in local biodiversity/forests by expanding monoculture oil palm caused the disappearance of traditional food and livelihood sources managed by women for household reproductive function.

In 2017, UNDP[11] acknowledged that domestically, measures have been taken to implement the Government?s zero-tolerance policy for gender-based violence. These include the Law on Domestic Violence in 2004, the Victim Protection Law in 2006, the Law on Anti-Trafficking in 2007 and the Law on the Protection of Women and Anti Gender-based Violence in 2009. Significant to CoPLI, the report highlights two areas of concern on land rights and informal justice. Land is a crucial resource for poverty reduction, food security, and rural development. However, men and women do not always enjoy the same rights to it.[12] The Marriage Law permits marital property to be registered under both the husband and wife?s name but in practice, it is registered under the husband?s name only largely due to lack of awareness about the law.[13] In other parts of Indonesia, women are forbidden to own land under customary law. The customary justice system (*adat*) is a method for resolving disputes at the village level but there are barriers preventing women from accessing justice. Being a judge or *adat* leader is generally considered to be a male role.[14]

For more detail see Annex 5 (Stakeholder Engagement Plan) in IFAD?s Project Design Report.

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[1] Lembaga Pengelola Hutan Desa - Community Based Village Forest Management Group

[2] Nurliza, N., Dolorosa, E., & Yusra, A. H. A. (2017). Rice farming performance for sustainable agriculture and food security in West Kalimantan. *AGRARIS: Journal of Agribusiness and Rural Development Research*, *3*(2), 84-92.

[3] price can reach IDR 8000?10,000/kg, but in 2010 it dropped to IDR 4000?5000/kg

[4] Purwanto, S. A. (2018). Back to the river. Changing livelihood strategies in Kapuas Hulu, West Kalimantan, Indonesia. *Forests, Trees and Livelihoods*, *27*(3), 141-157.

[5] Sentarum Lake National Park Management Plan: 2018-2027.

[6] Aliansi Masyarakat Adat Nusantara (AMAR) /Indigenous People Alliance of the Archipelago is an independent community organisation with a vision to create a just and prosperous life for all Indigenous Peoples in Indonesia.

[7] IFAD Country Technical Note on Indigenous Peoples? Issues in Indonesia, 2012; updated draft version 2022. It works locally, nationally and internationally to represent and advocate for indigenous peoples issues. AMAN represents 2,332 indigenous peoples? communities throughout Indonesia, amounting to about 17 million individual members.

[8] CoPLI Design Team, May 2022.

[9] Interview with the Dayak Iban Head in Putusibau on 18 March 2022.

[10] The majority of research agrees that the length of the fallow period is the main factor in the sustainability of slash-and-burn practice (Filho, Adams and Murrieta 2013; Kleinman et al. 1995; Myllyntaus, Hares and Kunnas 2002). The fallow period gives time for the forest to regrow and soil nutrients to be recovered. Furthermore, the secondary forest growth during the fallow period provides habitat for wildlife and sequesters carbon. The study by Ziegler et al. (2012) indicates that restoring long-fallow swidden cultivation causes less and slower carbon loss compared to transitioning into other land uses (except tree-based plantations and forests). In Rika Fajrini. Environmental Harm and Decriminalization of Traditional Slash- and-Burn Practices in Indonesia. Indonesian Center for Environmental Law, Indonesia. IJCJ&SD 11(1) 2021 ISSN 2202-8005

[11] United Nations Development Programme Indonesia. (2017) Change Makers: Programming for Gender Equality and Helping Men and Women in Indonesia Shape a Fairer World.

[12] http://www.fao.org/gender-landrights-database/en/

[13] http://www.cifor.org/publications/pdf_files/OccPapers/OP-124.pdf

[14] http://www.id.undp.org/content/indonesia/en/home/presscenter/articles/2015/09/17/the-rise-of-women-in-the- customary-adat-justice-system-in-aceh-banda-aceh-.html

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain) Yes

Civil society engagement

It is expected that civil society organisations will play an important role in the implementation of the project including involvement in advisory groups or possibly steering committees at national or local levels**.** In the two targeted landscapes it is expected that Wetlands International (DSPL) and YIARI, ASRI and other CBOs (GPSPPL) will be engaged as partners and co-funders for the implementation. Civil society organisations will be encouraged to participate in project monitoring and facilitating target groups towards meaningful consultations.

Eligibility Criteria for target village selection. A total of 16 villages are proposed for support under CoPLI in both landscapes. A short list of 22 villages which have been selected from a total of 78 villages in the landscape through application of the criteria (see Table 5). This selection will be fine-tuned/finalised at the start of the project implementation, based on any new emerging issues or information as well as consultation with key local stakeholders.

Table 5. Criteria for CoPLI Village Selection and provisionally selected villages

Agreed Criteria as in IFAD-GEF7 CoPLI Mission Aide Memoire
i. located within the project PHUs;
ii. dependency to peat swamp forest ? the community have been depending on the peat swamp forest or peatlands for traditional livelihoods such as planting on shallow peat, collecting wild honey and other non-timber forest products;
iii. priority status at district and provincial levels as important peatland ecosystems for biodiversity conservation ? the villages have been protecting the peat swamp forest from conversion and fire;
iv. potential for co-management and developing mechanisms for long term sustainability and effective engagement to integrate conservation and sustainable development;
v. degree of threat ? such as drainage, logging, fires, unstable community livelihood etc.;
vi. expressed interest of the community to participate in project; and
vii. poverty and/or nutritional issues level
Indicative target villages selected in two landscapes based on above criteria (to be finalised at project inception)
Danau Sentarum Peatland landscape: 1. Lanjak Deras 2. Sungai Ajung 3. Sepandan 4. Melemba 5. Tempurau 6. Semalah 7. Jongkong Kiri Hilir 8. Vega 9. Nanga Leboyan 10. Sekulat
Gunung Palung ? Sungai Puteri Peatland Landscape 1. Penjalaan 2. Rantau Panjang 3. Sejahtera 4. Simpang Tiga 5. Kuala Satong 6. Kuala Tolak 7. Laman Satong 8. Tanjung Baik Budi 9. Tanjung Pasar 10. Mayak 11. Tanjung Pura/Mayak 12. Ulak Medang

Project Target Group Engagement and Feedback

Table 6 provides the avenues by which the Project shall engage with the target groups and how feedback from these groups will be fostered (aside from the Grievance redress mechanism).

Table 6. Stakeholder Engagement

Project Activities	Nature of Interaction	Purpose
Project Awareness	Community consultations and awareness raising Community consultation to ensure that all voices, including those of vulnerable groups, are heard.	To inform community members of the project's objectives and requirements, including their entitlements
Community/ Ground Validation	Community consultation, ground validation of actual beneficiaries	To identify actual beneficiaries
Socio Economic Baseline Survey	House to house visit by survey enumerators during the conduct of baseline study. Community dialogue is held to validate the findings and obtain conformity from the community's perspective. In IP communities, consultations with IP leader on protocols shall be observed	To undertake a socioeconomic profile of the actual beneficiaries
Undertake Multi-stakeholder consultations	Stakeholder consultation meeting Series and similar consultation shall occur based on topics	To raise awareness stakeholder regarding project issue preparation To strengthen collaboration with related stakeholder To ensure milestones achieving
Implementation of the project	Periodic update and consultations	To fulfill the consultation requirements of the project, to update on the progress of the implementation stage, and to resolve issues and concerns
Preparation of agreed engagement protocols with IPs in areas with IPs	Through FPIC protocols, conduct a series of consultations with IPs to ascertain their position and stand on the project Periodic update and consultations with IPs	To establish protocols of engagement with IPs To fulfill the consultation requirements of SECAP FPIC Implementation Plan (see SECAP Annex 4, Attachment 4) and the Stakeholder Engagement Plan (see Annex 5) in the IFAD Project Design Report as regards meaningful consultations with IPs, update them on the project progress, resolve issues and concerns
Village land Use plans (VLUP) and Community Work Plans (CWP)	Community consultation in the preparation stage	To identify land use mapping and plans in the village level To develop community work plan and budget and work plans and budget for CWPs as agreed by community and integrate with local development planning through Musrenbangdes (village planning)

Grievance Redress

A grievance redress mechanism (GRM) is an IFAD requirement and consists of a systematic process to receive, evaluate, and address the project- related grievances of affected persons (AP) and/or groups. The GRM for this project recognizes Indonesia?s laws and IFAD-SECAP requirements.

All complaints received in writing (or prepared in written form, when received verbally) from the target groups shall be properly documented and acted upon immediately and addressed through negotiation processes to arrive at a consensus, pursuant to the procedures detailed hereunder.

Level I - Village Level. The existing Village mechanism that addresses grievances shall be maintained for the Project. A decision should be made within 30 calendar days after receipt of the complaint. The stakeholder will be informed in writing of the decision within 14 working days.

Level II ? Sub-/District Level. If not satisfied by the Village level decision, an appeal may be made before the Sub-District/District (Province) unit who in turn is given 14 calendar days within which to resolve the complaint. The resolution will be officially communicated in writing to the complainant within 14 working days from the date of the issuance of the decision.

Level III - Project Level. If the decision by the Sub-District/District/Province unit is not satisfactory to the complainant, then the complainant may appeal to the project level, represented through the CoPLI focal person who in turn will present the complaint to the PMU. The complaint shall be resolved by the PMU within 14 calendar days and the decision shall be communicated in writing to the complainant within 14 working days.

Level IV ? MoEF. If the Project Level decision is unsatisfactory, then the matter will be taken to the appropriate Directorate of MOEF for final decision. The complaint shall be resolved by MOEF within 14 calendar days and the decision shall be communicated in writing to the complainant within 14 working days.

Grievances emanating from indigenous peoples as stakeholders ? in this case, the Dayak, shall initially be through their customary laws and traditions before it is elevated to the formal CoPLI grievance structure.

IFAD has an established complaints procedure for its supported projects to receive and facilitate resolution of concerns and grievances as regards alleged non-compliance of its environmental and social policies and the mandatory aspects of SECAP. If despite an official project GRM, stakeholders still need their concerns to be resolved in a fair and timely manner through an independent process, IFAD may be contacted by e-mail at SECAPcomplaints@ifad.org.

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

In West Kalimantan, the Gender Development Index (GDI), gender equality was found to be lower than the average for Indonesia for 2018-2020[1]. In certain locations, gender equality problems are still found, mainly related to the customary patterns of the community which were formed over a long period of time and are influenced by local culture and the colonial intervention. Restricted access of women to decision-making has resulted in unfair division of labor that contributes to poverty amongst

women of some ethnic communities. Traditional custom practices weakened women's political position, perpetuating the patriarchal structure within the community.

The Dayak practice *pangari**[2],*** a system of mutual collaboration in agricultural activities where groups are activated for laborious farming activities, such as *menugal* (seed planting with the dibble stick). Work is done in rotation from one member of the community to the other and the whole village will engage in the *pangari* activity. Women now establish their own voluntary *pangari* group, extended to other activities.[3]

For the Dayak Iban[4], there is a 14-hecatre land within the DSNP that is for rice cultivation and is traditionally maintained. Most people own rice fields, gardens, and rubber plantations. The Iban does not practice moving agriculture but on farm rotation, returning to a farmland every after 15 years. The village chief and customary leader during a village meeting will determine and assign lands to farm. Women and men farm equal land sizes. In the month of May, a ritual is performed in the beginning of farming and harvest called *niki bji* (time to plant). *Memuja manu*, on the other hand is a ritual to forbid everyone from fishing and foraging for edible foliage.

The shifting of land tenure from the community to the state via the plantation company and the practice of the ?household head? system of smallholder plot registration has narrowed women?s tenure access and contributes to the increased vulnerability of women as plantation workers and women disempowerment. With the presence of companies, cafes were established. Cafes refer to a food and snack stall where the staff also engage in commercial sex with customers. It has become a source of sexually transmitted diseases.[5]

The loss of local biodiversity by expanding monoculture oil palm has not only caused the disappearance of the people?s source of various locally grown foods, but also the raw materials which local women use to produce local handicrafts for sale. Women are skilled in rattan handicrafts, producing *Jarai* (local basket/carrier) for sale. The destruction of surrounding forests like those in Anbera has made it difficult for women to obtain the raw material. *Jarai* makers now have to walk a distance in order to obtain rattan.

Gender roles in agricultural activities within peatland-based communities are significantly dominated by men. The role of men is dominant in the economic aspects of production and ownership of household assets, whereas women have a more significant role in domestic matters. The decrease in available agricultural land and the depletion of local food products as the result of forest destruction have shifted the pattern of food acquisition and consumption. Most foods and other household products are now purchased from local and mobile sellers, including children?s snacks, with cash or credit. The increasing dependence on cash economy for fulfilling daily needs is one factor that influence the women to seek for alternative/additional household income to whatever the family obtains from their smallholder plots or their husbands? income, by working as plantation laborers or *berondol* seekers, even as migrant workers. Further indirect impacts of the plantation industry for the women including increasing social problems, for instance, prostitution and STD.

In DSPL, people usually catch/cultivate fish to eat for themselves and sell it in the form of salted and smoked fish), so the fish sold is not fresh but processed first. Women mostly process fish for sale. The one who catches fish are mainly the men, but sometimes men and women also catch fish together on occasion. Fish caught from the lake are brought to the sub-district, later there will be collectors who

come to the villages and bring it to the nearby town of Sintang (already in processed form).[6] The Iban women are empowered by their ability to weave baskets and participate in farming and labor activities. However, their roles in the customary council is said to be limited[7].

In GPSPPL, women?s groups are similarly present such as the Pembinaan Kesejahteraan Keluarga-PKK/ Guidance for Family Welfare) of Sedahan Jaya Village, a women?s organization promoting the Panca Dharma Wanita (Five Duties of Women[8])[9]. The various activities done in PKK are beauty contests, flower arranging, and other practical skills like sewing, cooking, and selling. On the other hand, Flora and Fauna International (FFI), an NGO, collaborates with the Palung Foundation in Rantau Panjang Village and Penjalaan Village for legalizing Village Forest (Hutan Desa), but it is still ongoing. In the Community Development program which focuses on small groups, especially mothers, 30% of village forest development targets come from women, resulting in gender equality. This community makes eco-polybags, wickerwork, and vegetable nurseries. While the men focus on the world of animal husbandry such as catfish culture.[10]

The Badan Restorasi Gambut dan Mangrove (Peatland and Mangrove Restoration Agency or BRGM) is collaborating with Lembaga Gemawan (Gemawan Institute), an NGO fighting for political sovereignty, people?s economic independence, character of local culture, ecological justice, and gender equality[11]. The partnership aims to create activities to empower women through topics on gender equality and social inclusion (GESI) and to improve the economy and strengthen institutions of local communities[12]. These initiatives may be replicated and scaled up in West Kalimantan under CoPLI. YASRI (a local NGO) organized an eco-polybag program to support a women?s forest protection team in one village next to GPNP and other community development programs[13]. CoPLI will support the further enhancement of women?s engagement in these and other initiatives. See Annex 3 (Gender Assessment and Action Plan) in IFAD?s Project Design Report (also uploaded to GEF system)for more detail.

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[1] GDI in West Kalimantan in 2018, 2019 and 2020 are 86.74, 86.81 and 86.87, respectively. Whilst GDI for the whole Indonesia in the same years are 90.00, 91.07 and 91.06, respectively. (Source: National Statistic Agency/BPS, 2021)

[2] The Dayak Iban uses the term *Beduruk*.

[3] Julia and Ben White. (2011) The gendered politics of dispossession: oil palm expansion in a Dayak Hibun community in West Kalimantan, Indonesia. Paper presented at the International Conference on Global Land Grabbing 6-8 April 2011.

[4] Interview with the Dayak Iban Head in Putusibau on 18 March 2022

[5] *Ibid*.

[6] Interview with AMAN-Putusibau. 17 March 2022.

[7] Village meeting in Batu Lumpar District on 21 March 2022.

[8] (i) Be loyal partners to husbands, (ii) procreate for the nation, (iii) educate and guide children, (iv) regulate the households, and (v) be useful members of society.

[9] Wieringa, S. E. (1993). Two Indonesian women's organizations: Gerwani and the PKK. Bulletin of Concerned Asian Scholars, 25(2), p.26.

[10] Interview with FFI on March 23 2022.

[11] www.gemawan.org

[12] Interview with NGOs on 30 March 2022 in Pontianak.

[13] Interview with YASRI (NGO) on 30 March 2022 in Pontianak.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

The private sector, in particular the oil palm and industrial tree plantation companies will be actively engaged in the implementation of the project especially in the targeted landscapes as well as the national stakeholder engagement and outreach. Partnership and co-finance is expected from private sector and local government, which are involved in the forest harvesting, plantation and land management sectors in peatland landscapes nationwide through the implementation of the RPPEG at national, provincial and district levels.. The private sector will also provide support in both manpower and finance in implementing project activities collaboratively within the targeted landscapes. The earlier GEF-4-APFP and GEF5-SMPEI projects demonstrated that the active involvement of private sector was critical, respectively for advancing sustainable management of peat, and ensuring their compliance with peatland water management regulations, thereby reducing the extent of peatland fires. CoPLI will expand on this to engage the private sector in the conservation and rehabilitation of remaining areas of peatlands and forests in and adjacent to their concession in the targeted landscapes.

In the targeted districts of Kayong Utara and Ketapang in West Kalimantan, there has been a good history of private sector engagement as many of the plantation companies are members of RSPO and they have been open to and engaged with initiatives for landscape assessment and management (see

Table 7 below). Portions of the GPSPPL has been developed by the private sector, mainly for oil palm, and there is significant potential to work with the neighboring oil palm companies and also local communities to ensure connectivity of forested areas and high conservation value areas through conservation corridors, for biodiversity conservation and protection. During the design mission, extensive consultation and site visits were made with private sector oil palm plantations from the Bumitama Gunajaya Agro (BGA) Group and the Austindo Nusantara Jaya (ANJ) Group which are both active members of RSPO as well as the forest management company PT. Mohairson Pawan Katulistiwa. All three groups expressed strong interest to participate in the CoPLI project as they felt it would complement their own initiatives and also enable better integrated landscape approach and partnership with the national and local governments.

In the GPSPPL, the oil palm private sector will be a strategic partner to implement the following interventions: (i) strengthening the protection, restoration and management of forest and peatland areas within the oil palm concession areas of BGA and ANJ using company resources; (ii) providing funds and manpower to support action by communities, NGOs and local government to better protect and manage areas of natural habitats outside the concessions that may help link the conservation areas in the concessions to be broader landscape; (iii) support using company resources for implementation of community-based sustainable diversified livelihood models in targeted villages to support community livelihood (eg agroforestry) combined with forest rehabilitation, fire prevention and ecotourism development etc; (iv) support the establishment and operation of community forest conservation areas; The project will also work closely with forest management company, PT. Mohairson Pawan Katulistiwa (MPK), which is managing (in partnership with the NGO YIARI), a forest management concession in key peat swamp forest habitats of global significance for Orang Utan conservation in part of the landscape. It will assist MPK in establishing an ecosystem restoration concession and harmonizing management in adjacent forests currently zoned for production or agricultural conversion.

In the DSPL ? there is only one private sector plantation company PT. Khatulistiwa Agro Abadi (KAA) which has recently taken over an abandoned plantation and is working to rehabilitate and expand it. It is a relatively newly established company and not an RSPO member. The project will work to assess the extent of peatland and areas of biodiversity significance in the proposed expansion area as well as assess and monitor any potential negative impacts of the proposed expansion and promote good management practices. Other small-scale private sector operators are the providers of boats for visitors to the DSNP and the traders supplying goods to the villages and buying the fish and other NTFPs from the landscape. These entities will be engaged through outreach programmes by the project as well as activities to enhance the marketing of sustainable products.

At the national level the project will encourage the private sector to participate in (i) the multi-stakeholder partnerships and investment framework to mobilize finance for forest and peatland biodiversity conservation; and (ii) the cross learning on biodiversity conservation initiatives.

Linkages will also be sought with the ongoing work of the GEF-7 Good Growth Partnership, and the new GEF-7 Food, Land Use and Restoration (FOLUR) impact program (see Table 8 below). Knowledge exchange will be ensured with the IFAD grant *Sustainable Farming in Tropical Asian Landscapes* (SFITAL)15, co-financed by Mars Incorporated, which recently started, looking at improved instruments to engage with private sector in oil palm supply chains in Indonesia (target areas:

Aceh Tamiang and Labuhan Batu) to achieve a sustainability transformation through community-centered, sustainable, climate-focused economic development initiatives, as well as compliance with environmental and social standards through the establishment of transparency and traceability systems throughout the value chain.

Table 7. Private Sector Entities Adjacent to the Locations of GEF7 Project (likely CoPLI partners in bold)

No.	Conservation Area	Concession Area/Company Name	Type of Business
1	Gunung Palung ? Sg Putri Peatland Landscape	PT. Ladang Sawit Mas	Palm Oil Plantation*
		PT. Damai Agro Sejahtera	Palm Oil Plantation*
		PT. Gemilang Makmur Subur	Palm Oil Plantation*
		PT. Sejahtera Sawit Lestari	Palm Oil Plantation*
		PT. Kayung Agro Lestari	Palm Oil Plantation**
		PT. Mohairson Pawan Katulistiwa	Forestry Concession (Restoration)
		PT. Laman Mining	Mining Industry (bauxite)***
2	Danau Sentarum Peatland Landscape	**PT. Khatulistiwa Agro Abadi**	Palm Oil Plantation (non-RSPO member)

* Bumitama Gunajaya Agro Group & RSPO member
**Austindo Nusantara Jaya Group & RSPO member
*** Mining permit has been recently terminated

15 https://www.ifad.org/en/web/latest/news-detail/asset/42003420

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

5a. Environment and Social Risk Category

The Project is classified as Category B (moderate risk) consistent with IFAD?s Social, Environmental and Climate Assessment Procedures (SECAP). Indonesia is replete with enabling mechanisms that approximate equivalence to SECAP. The Project will cover two National parks and ecologically sensitive areas like wetlands/peatlands outside of the national park boundaries, but it will not undertake any development which will create irreversible and adverse impact on the environment. CoPLI activities will focus on

protecting and rehabilitating wetlands with project interventions that will support conservation of forest and peatland ecosystems as important habitats. There will be no new development or land clearing activities under the project since the purpose is to support biodiversity conservation in these areas and promote diversified alternative livelihoods to reduce pressure and impacts from local communities on the ecosystems. Key activities will include fire prevention, rewetting of drained peatlands, rehabilitation of degraded forests etc.

Diversified livelihood activities may include: (i) fisheries on peatland areas, but it will be small-scale done by the local communities avoiding risks of overfishing or habitat damage; and (ii) agriculture/agroforestry limited within existing agriculture areas and at a small-scale. The Project will be working with smallholders and existing concessions in peatlands to address deforestation, fragmentation and promote conservation and sustainable use of peatland and forest ecosystems. Project activities will not lead to adverse impacts on physical cultural resources and will not result in the physical resettlement of more than 20 people or impacting on more than 10 per cent of any individual household?s assets. While there is presence of indigenous peoples (Dayak and Malay), adverse impacts on them are not foreseen as the Project will engage meaningfully with them and undertake FPIC.

An environmental and social analysis to develop an Environmental and Social Management Plan (ESMP) is required per SECAP. For purposes of this SECAP Review Note, an environmental and social analysis has been conducted and an Environmental, Social, and Climate Management Plan (ESCMP) prepared for validation and disclosure prior to implementation (see Table 8 in Annex 4 in IFAD?s Project Design Report). The ESCMP includes measures to integrate traditional knowledge owned by the local and customary communities in the targeted project landscapes and guidelines to processing FPIC has been developed. Results of environmental and social risks screening can be found in the Attachment 3a of the aforementioned document).

Each subproject will be subject to ESCMP and should other risks be later identified, will require updating of the ESCMP. Component 2 activities/subprojects will be screened accordingly using the latest instruments prepared by government in 2021. Environmental permits or licenses for projects/businesses that impact the environment are required and Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 4 Year 2021 provides the limits of activities. There are three levels in environmental permitting, the end product of which is akin to the preparation of an ESCMP. These are:

(i) Environmental Impact Analysis (AMDAL). AMDAL is necessary for project/business activities that: (i) exploit renewable and non-renewable natural resources, (ii) change the environment/landscape, (iii) pollute the environment and damage/degrade the natural resources, (iv) impact the sustainability of natural resources and cultural heritage, (v) utilize and produce from raw materials, (vi) introduce microorganisms and new species of animals and plants and (vii) implement new technology that impacts the environment;

(ii) Environmental Management Efforts (UKL-UPL). Sectors or project/business activities that are not required to acquire AMDAL but still impact the environment must obtain UKL-UPL. The document includes the action plan, the environmental impact of the activity, and the environmental management and monitoring program; and

(iii) Statement of Ability to Manage and Monitor the Environment (SPPL). Certain sectors or project/business activities do not even require an AMDAL or a UKL-UPL. A SPPL document is submitted.

5b. Climate Risk classification

The Project is classified moderate for climate risk classification. The project areas indeed are subject to extreme climatic events: (i) Danau Sentarum Peatland Landscape is at times impacted by extreme rainfall

and flooding as well as droughts that lead to drying out of the lake system, and (ii) Gunung Palung-Sg Putri Peatland landscape is affected by periodic droughts which contributes to increasing peatland degradation and fire risks. However, it is not expected that these will have a major impact on project activities or impact as the project is focused on reducing risks of flood and fire. It is envisaged that these risks should be reduced over the course of the project.

Project target groups are dependent on natural resources within peatland areas and have been through time, affected by climatic events such as soil dryness, wildfires, and flooding resulting to harvest or post-harvest losses. Efforts will be made to enhance resilience to such losses especially integration of climate change adaptation and resilience aspects in the development of the Provincial and District Plans for Protection and Management of Peatland Ecosystem/RPPEG that will be supported by the project.

Climate change adaptation and resilience will be mainstreamed in the diversified livelihood activities under Component 2 of the Project. The Project will include capacity building activities for government institutions, private sector as well as local communities and explore the possibility to include small-scale renewable energy technology, for example solar-powered food processing system (e.g., solar dryer) in diversified livelihood activities. The Project will also look at better and more diversified options of peatland management to enhance resilience to climate change with special mention to documentation and mainstreaming of indigenous knowledge systems and practices.

Capacity building activities for local communities and other stakeholders may likewise include opportunities for climate resilience as activities that are generally focused on reducing vulnerability and enhancing resilience in reference to the HEVA (2022). IPCC and WB have indicated that risk is the result of the interaction of hazard, exposure and vulnerability. West Kalimantan was assessed of rank 14 out of 34 provinces/cities of Indonesia in terms of overall risk. The province does not contain hazard and exposure hotspots but ranks 3 nationwide for overall vulnerability due to parameters such as: (i) human and social (covers health and well-being, education and skills, inequality, assistance) and (ii) physical (inadequate housing, poor transportation access) parameters. It also ranks within the top 6-10 for vulnerability parameters: (i) economic (vulnerable livelihoods and employment, lack of financial buffer capacity) and (ii) institutional (absence of evacuation plan, weak building materials).

5c. Other Risks

Other risks including Political, macro-economic, financial and mangement risks are included in Table 8 below together with mitigation measures.

Potential project risks and proposed mitigation measures are further detailed in Table 8, below.

Table 8. Project Risks and Proposed Mitigation Measures

Risk Categories and Subcategories	Inherent*	Residual**
Country Context		
Political Commitment		
Risk (1) Change in President and Government Ministers. The Presidential elections are scheduled in 2024 at time of project start up and will lead to change of president and ministers which may impact national policies and the commitment from the political system .	M	L

Risk Categories and Subcategories	Inherent*	Residual**
Mitigation: The project is closely alighted with implementing national regulations and programmes which provide a long-term framework for the project implementation. The project is working at national provincial and district levels which may reduce the risk of changes in political support at one level. A sound publicity campaign conducted with the focus of provincial and national political systems describing the long-term benefits of the project will have some mitigation of this risk.		
Macroeconomic		
Risk(s): Inflation is one of the main issues that may affect negatively in managing the project budget. Bank of Indonesia is targeting inflation to be within a range of 2% to 4% for 2021 and 2022. The December 2021 core inflation rate, excluding government-controlled and volatile prices, rose to 1.56%, from 1.44% in November same year. Indonesia implements a free-floating exchange rate regime. The exchange rate stability is necessary to achieve and maintain price and financial system stability. As such with 4% inflation the exchange rate fluctuations can be expected. Although the increasing exchange rate is an advantage, the currency stability is important for the project to progress.	M	L
Mitigation: Sound AWPB planning and timely and good AWPB disbursement should minimize the risk. Maintaining unspent resources in a US$ account would reduce risk from currency fluctuations		
Environment and Climate Context		
Project vulnerability to climate change impacts		
Risk: Climate change risk including intensification of the periodic El Nino drought/La Nina Floods that are anticipated to occur at some time during implementation of the project and could affect some aspects of project achievement	H	M
Mitigation Fire prevention by sustainable management and community stewardship, combined with better drought prediction and fire prevention measures; For Danau Sentarum, locate new infrastructure and facilities away from areas that may be impacted by rise of the level of the lake linked to extreme rainfall Protect peatlands and forests in the catchment of the project sites to reduce chance of flooding and maintain dry season water flows. Promote the use of flood tolerant and/or drought tolerant varieties for diversified livelihood activities, in order to mitigate potential harvest loss due to climatic events. Working closely with the Agency for Meteorology, Climatology and Geophysics (BMKG), to detect any early warning signs of El Nino/La Nina and use the information to adjust the planning of activities especially in the fire prone regions to minimize disruption; and Incorporate climate change adaptation practices in the workshops and awareness raising activities organized by the Project for local communities		
Procurement		
Legal and regulatory framework		
Risk(s): Laws and regulations for public procurement are in place and adequate for routine procurement of project requisites, however some GoI procurement methods such as E-Catalogue, Bela Pengdaan , *Swakelola*/Force Account type I-IV are not available in IFAD Procurement handbook and Guidelines.	M	L

Risk Categories and Subcategories	Inherent*	Residual**
Mitigation: Start-up Procurement training and workshop are needed for project recipient to introduce/ socialization/ harmonized IFAD and GoI?s Procurement Guidelines and manual and stated in the project LTR (Letter to Recipient) as well as consideration of approval for use of GOI procedures not currently incorporated in IFAD procurement procedures.		
Accountability and transparency		
Risk(s): Small number of local suppliers of some items restricts the scope of competition especially in remote districts); Family/personal relationships between public authorities (in Remote District) and suppliers can compromise procurement processes.	M	L
Mitigation: Requirement for prior review agreement of procurement/tendering arrangements and no objections for contract awards to be specified in the Letter of Recipient (LTR); Procurement methods appropriate for local circumstances to be specified.		
Capability in public procurement		
Risk(s): Technical capacity in tender preparation and evaluation is lacking for more complex procurement involving equipment (e.g. for water supply) and civil works (buildings, roads etc).	M	L
Mitigation:Standardise technical specifications for common procurement items/packages across countries.		
Public procurement processes		
Risk(s): The Government of Indonesia often receive grants and loan from international organizations and Multilateral development organizations including IFAD, the public procurement processes has been mitigated from the earlier stage of the project and improved base on the lesson learned, however the Sub national/ the local government especially in the remote area for this project is lack of knowledge and experience with International Procurement guideline and regulation including IFAD	M	L
Mitigations: Prior review and no-objection requests by IFAD to minimize risks is still needed to mitigate the risk for some complex procurement, Support and coordinating by NPMU Consultant and IFAD to conduct the procurement start up training and workshop regularly.		
Financial Management		
Organization and staffing		
Risk(s): The government officer handling FM aspect is not dedicated to the project and have significant workload in day-to-day basis; Limited experience in implementing projects financed by foreign loan/grant therefore little exposure to IFAD?s FM requirement including disbursement arrangement; and Several implementing agencies at central level managing the project. In addition, there are two landscape units in two different districts, with capacities of FM personnel may varied between central and district level, have no or little knowledge of lending projects. The weak coordination may become risk with many implementing agencies under one project.	S	M

Risk Categories and Subcategories	Inherent*	Residual**
Mitigations: Appoint FM officer from government personnel in PMO and other implementation units at central and district level, that is responsible for FM aspect; Hire an experienced FM consultant at PMU level to support the project on overall FM arrangement. The consultant needs to have prior exposure to IFAD projects thus familiar with FM and reporting requirements; Clear organizational arrangement and responsibilities of FM at PMO and each implementing unit, this should be included in PIM or other project documents; and FM training on IFAD on disbursement policies and other FM arrangements including disbursement, financial reporting, eligibility of expenditure, etc.		
Budgeting		
Risk(s): Delay in DIPA (budget) availability due to tight time of revision and only small portions allocated for the first months of the year	M	L
Mitigations: Timely submission of AWPB incorporating total needs for one full year. Submit an AWPB as a basis for allocating initial DIPA in each IA; and Prepare a DIPA revision starting in January/February at the latest.		
Funds flow/disbursement arrangements		
Risk(s): The fund flow arrangement adopted by SMPEI; previous GEF project (off treasury; not using the local treasury/cash office) does not allow a fund transfer to local government thus fund is being channeled through cheque (PMO staff delivered cheque directly to province/district) to province and district units; High level use of cash once the cheque is disbursed. Although expenditures covered by cheque is small, ranging from meals, per diem, etc, but since the cheque usually cover three months period, the amount is relatively risky if the implementation level is high; Increased number of implementing units at central and district level may increase the risk of fund channeling from PMO to other agencies.	S	M
Mitigations: Explore another option of funds channeling from central to local government available within the government system that can suit the nature of project, learn from example of another IFAD projects or other loan/grant from different donors; . Reiterate to counterpart on restrictions of use of cash; and Provide regular refresher/coaching/training to FM officer at central and district level managing the funds.		
Internal controls		
Risk(s): The capacity of FM team (number of personnel, knowledge/experience), specifically verification team in reviewing payments from consultants, contractors, or community may varied across project locations; and Unfamiliarity of type expenditures that are eligible to be financed under the project and other special arrangement such as tax.	S	M

Risk Categories and Subcategories	Inherent*	Residual**
Mitigations: Develop a project?s financial management manual that include information of financial reporting requirements, eligible expenditures financed under the project and supporting documents required for each expenditures, and other FM relevant information; and Provide training or socialization of this manual to all implementing units up to district level		
Accounting and financial reporting		
Risk(s): Incomplete, inaccurate, and late submission of financial progress reports; and report is not being properly reconciled due to DA is in local currency. This has been the case of previous GEF grant project under the same directorate of MOEF	S	M
Mitigations: Recruit a financial management specialist to help NPMU consolidate reports from all PIUs; Develop accounting and financial management manuals; to empower accounting system; strengthening the internal audit function; and Training with EA and IA staff on the preparation of financial progress reports focusing on completeness, timeliness, and quality.		
External audit		
Risk(s): submission of audit report and audited project financial statements are incomplete. In addition, the external audit might be delayed due to unclear timelines.	M	L
Mitigations: Ensure ToR for audit is explained to MOEF and BPK before the audit of the project commences. Have clear timelines on the submission of project financial statements and the financial audit to avoid delays		
Environment, Social and Climate Impact		
Biodiversity conservation		
Risk (1): Weak enforcement of policies and regulations related to forest and peatland management	M	L
Mitigations: Awareness-raising on the economic, social and environmental impacts of forest loss and peatland degradation and relevance of the new peatland regulations; Enhancement of monitoring and enforcement measures through capacity building of responsible government units and clarifying the roles and responsibilities in the governance structure of multi-stakeholders; Recent development and implementation of MOEF?s procedures and technical guidelines for implementation of regulations on sustainable peatland management and restoration involving participation of police, army, MOEF, local government, village leadership and CSOs/NGOs; MOEF?s development of a nationwide monitoring system for peatland fires and soil moisture serving as an early warning system for fire prevention and control; and GOI?s permanent moratorium on the conversion for agriculture and plantations of designated primary forests and peatlands.		
Risk (2): Lack of political will, poor governance or corruption	M	L

Risk Categories and Subcategories	Inherent*	Residual**
Mitigations: The current president (second term until October 2024) has emphasized strong action to enhance sustainable peatland management as well as empowerment of communities to manage forests and natural resources. The Minister of MOEF has been supportive and taken steps to promote peatland protection, GHG emission reduction and biodiversity conservation through the development, adoption and implementation of pertinent regulations; Although the President and Ministers will change in 2024, the project is aligned with long term Plans (eg EPPEG (2029-2049) and government regulations. Promote and enforce existing conservation-related regulations, build the capacity of relevant staff and institutions involved in peatland conservation, and support the drafting and finalization of the sub-regulations specifically related to conservation and procedures to implement the Government Regulations on Protection and Management of Peatland Ecosystems (PP71/PP57), as well as mainstreaming biodiversity in the relevant regulations; Linking project activities closely with national policies and regulations (e.g., PP71/PP57 on peat, No. 5/1990 and No. 41/1999 on forest, target to reduce GHG emission, APSMPE) and addressing issues prioritized by the national and provincial governments; and IFAD to apply zero-tolerance policy on corruption that will be supported by the development of a programme framework for transparency and disclosure to be included in the Project Implementation Manual (PIM) and include obligatory measures to guide procurement and awarding of contracts, participation of representatives of end-users in bid assessments; and prompt communication to bidders of bid evaluation outcomes.		
Risk (3): Potentially slow implementation of multi-stakeholder integrated management strategies mitigation measures	M	L
Mitigation: Establishment of a multi-stakeholder platform at provincial level for sustainable village development strategies integrating sustainable peatland and forest management options; and Medium and/or short-term plans in support of the RPPEG to be developed by provincial/local governments		
Risk (4): Lack of willingness from local stakeholders (including women and youth) to participate in the biodiversity conservation efforts, capacity building, and knowledge up-taking and exchange activities	M	L
Mitigation: Active consultation of the vulnerable sector that include indigenous peoples and local communities in the design and implementation of the project in all the targeted landscapes; Development of an indigenous people?s plan (IPP) to guide proactive engagement of IP in project activities and ensure that the Project obtain Free Prior Informed Consent (FPIC); Women and youth will be involved throughout the training and community livelihoods; and Targeted interactive knowledge products will be developed to raise awareness on the benefits of alternative livelihood options, which also protect peatlands and forest ecosystems.		

Risk Categories and Subcategories	Inherent*	Residual**
Risk (5): The UUCK (Act Number 11 of 2020 on Job Creation) leads to weakened environmental protections for the areas outside of the protected areas in the targeted landscapes and may contribute to expansion of oil palm plantations	M	L
Mitigation: The majority of forested portions of the targeted landscapes outside of the National Parks are in forest management units and in protected forests and therefore unlikely to be converted for oil palm The international pressure through the No Deforestation, No peat and No exploitation (NDPE) policies of the majority of oil palm refiners and supply chain companies significantly limit the risk that companies will develop new plantations in intact peat swamp forests. The peatland areas are designated within peatland hydrological units with the majority designated for conservation ? precluding oil palm development.		
Risk (6): COVID-19 risks and impacts on human resources and delays in the implementation of travel, workshops and capacity building activities. (Medium in short term dropping to low with increased vaccinations and transit to endemic phase)	M	L
Mitigations: Conducting COVID19-related risk (e.g., challenges for stakeholder engagement and mobility) and opportunity (e.g., reductions in habitat fragmentation) analyses to inform project design and implementation to the potential effects of COVID-19; Adopt COVID-19 mitigation measures (e.g., for managing travel, workshops etc.) in line with GOI policies and procedures; and Provision of support for increasing food diversification under Component 2.		
Indigenous Peoples		
Risk(s): The project activities under Component 2 may potentially affect IPs, their customary lands or access to natural and cultural resources	M	L
Mitigation: The project has been developed to actively engage indigenous peoples in the project design and implementation and to empower them to better manage the natural resource in their village areas. A SEP has been prepared;		
Vulnerability of target populations and ecosystems to climate variability and hazards		
Risk(s): Project is considered high risk given its geographical location which is a low-lying area prone to floods, saltwater intrusion from seal level rise and typhoons.	H	M
Mitigation: Per IFAD policies a SECAP and ESCMP were prepared as part of project preparation; Capacity building for staff and communities on climate change and environmental degradation; Preparation of Disaster Management and Risk Reduction approaches into the Village Land use Plans		
Stakeholders		
Stakeholder engagement/coordination	M	L
Risk(s): Given the number and diversity of potential project stakeholders, particularly under Component 2 there may a risk of not achieving full inclusion of interested stakeholders in the project	M	L

Risk Categories and Subcategories	Inherent*	Residual**
Mitigation: A SEP has been prepared; Consultations will be documented and monitored semi-annually along with disclosure of relevant SECAP documents; Project orientation will be conducted in the different project level offices to update the stakeholders on the approved processes and requirements for project implementation; Meetings with stakeholders shall be documented, highlighting agreements and ways forward which will be monitored semi-annually throughout project implementation; and A large number of communication activities and KE products will be supported under the Output 3.2 that will facilitate achieving greater stakeholder engagement.		
Stakeholder grievances		
Risk(s): The project activities under Component 2 may potentially adversely affect some stakeholders in particular at the village level including access to natural and cultural resources	M	L
Mitigation: Per IFAD policy a grievance mechanism will be set up to attend and respond in an adequate and timely manner to the grievances, claims or queries submitted; Consultations and grievances will be documented and monitored semi-annually along with disclosure of relevant SECAP documents; Project orientation will be conducted in the different project level offices to update the stakeholders on the approved processes and requirements for project implementation; and Meetings with stakeholders shall be documented, highlighting agreements and ways forward which will be monitored semi-annually throughout project implementation. A SEP has been prepared.		

***Inherent risk** is the risk present in any scenario where no attempts at mitigation have been made and no controls or other measures have been applied to reduce the risk from initial levels to levels more acceptable to the organization; determined at baseline.

****Residual risk** is the risk "left over" after security controls and process improvements have been applied; the risk remaining *after* efforts have been made to reduce the inherent risk; taking into account the expected effects of risk-management actions (from SECAP 2017).

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Project Management and Coordination. CoPLI will be implemented over a period of five years (2023 ? 2028) under arrangements to be specified in the Grant Agreement between IFAD and the Government of Indonesia. The Ministry of Environment and Forestry (MoEF) will be the designated recipient of the GEF grant (representing the Republic of Indonesia), and the Directorate of Peatland Degradation Control (DPDC) will be the Lead Project Agency. DPDC, with support as needed form other units in the Ministry, will facilitate the engagement of other related agencies and units in the ministry and also engagement with other relevant national agencies. The project management will be organized as follows (see Figure 5 below):

Project Steering Committee (PSC) The PSC will provide overall strategic guidance and oversight to project implementation, and will be responsible for reviewing and approving the CoPLI AWPB and progress reports for submission to IFAD and GEF. It will meet bi-annually, will be chaired by the Directorate General of Pollution Control and Environmental Degradation (DG PCED) of MoEF, and will

include representatives from other relevant MoEF Directorate Generals (e.g., DG of Conservation on Natural Resources and Ecosystems), the Peat-Mangrove Restoration Agency (BRGM) and from the governments of the Kalimantan Province, and the Kapuas Hulu (DSPL) and Kayong and Utara Regencies (GPSPPL). Other national ministries may be invited to join the PSC in particular with respect to the facilitating the implementation of the RPPEG.

Project Management Office (PMO). The day-to-day project implementation will be delegated to a Project Management Office (PMO) within the Directorate of Peatland Degradation Control. The PMO will be accountable for the project performance and use of funds under the supervision of the Director of Peatland Degradation Control and the Director General of Environmental Pollution and Degradation Control of MoEF. The PMO will consist of a Project Manager, 3 senior technical experts (peatland management, forestry and biodiversity and community development), a finance officer, an administration officer, a procurement officer, and a knowledge exchange and monitoring and evaluation; all these eight professionals will work full time during the implementation of the Project. The forestry and biodiversity and community development experts will be outposted and work in the project?s three landscape implementation units located in their respective district offices, but will provide cross-support to the implementation of activities in both landscapes. Fulltime professionals will also be contracted to support the project?s KMC and M&E sub-components, respectively as well as a social safeguard?s expert.

The PMO will be responsible for: (i) the project management, coordination and technical lead; (ii) project financial management and reporting, including the preparation of withdrawal applications, financial statements and financial reports; (iii) project procurement; (iv) ensuring that the annual audit reports are prepared and timely delivered by the correspondent authority; (v) establishing and managing the project?s M&E system; (vi) preparing, jointly with the Landscape Implementation Units, the AWPBs, procurement plans, and semester and annual progress reports, (vii) supporting IFAD in the preparation and implementation of supervision and implementation support missions; and (viii) preparation and dissemination of project knowledge and promotional material.

Provincial Coordination. The Project will be coordinated at the provincial level by the provincial Forest and Environment Agency (DLHK) which is the main counterpart of MOEF in the Province. DLHK also oversees the management of forests in the province including management of the zonal forest management units with which the Project plans to work in the target landscapes. PDLHK is also the chair of the Provincial Peatland Restoration Team (Tim Restorasi Gambut) established to facilitate peatland restoration measures in the province. DLHK is also the designated agency to lead the development and implementation of the provincial Peatland Ecosystem Protection and Management Plan (RPPEG) which is a core framework for the implementation of the project. Although it is not proposed that there be any full-time project personnel based at the province level, there are significant resources under Outputs 1.3 and 3.3 for activities at the province level to develop the RPPEG and RPPEG for target districts as well as set up a provincial level Information System for Peatland Ecosystem Protection and Management (SIPPEG). Within these outputs there are resources for local consultants to support the coordination process. If appropriate, a committee or a working group could be established to support the project and RPPEG implementation.

Landscape Implementation Units. At the level of the districts, three landscape implementation units (LIU) will be established and located in the District Environmental Agency offices; one in the Danau Sentarum Peatland Landscape (DSPL) and two in Gunung Palung-Sg Putri Peatland Landscape (GPSPPL)

landscapes.. The administrative jurisdiction of the GPSPP Landscape is divided between Kayong Utara Ketapang Regencies. To ensure the required collaboration and support needed to achieve project outcomes a second LIU will be established in the GPSPP.

Each LIU will consist of a Unit coordinator and an administrative assistant supported by an outposted PMO technical expert providing cross-support to the implementation of project-supported activities in the two landscapes and village community facilitators. The Unit coordinators will be responsible for the overall project management at the district level, including: (i) refining the selection of the target communities based on the agreed criteria; (ii) managing all project activities implemented at the village level; (iii) receiving village plans and activity proposals from community facilitators working in target villages and consolidating them as the district work plans and budgets for submission to PMO for review and approval; (iv) operating the M&E systems, and preparation of semi-annual and annual progress reports for submission to the PMO; (v) ensuring that technical guidance and implementation support are provided to all target villages; (vi) coordination of all the activities of the service providers; (vii) organization of the training of and evaluation of community facilitators; (viii) assisting in organizing meetings of the PMO and keeping accurate records of the minutes of meetings; and (ix) ensuring the consultation process with the beneficiaries through village facilitators on IFAD?s grievance redress mechanism.

The LIUs will work in close collaboration with the BAPPEDA, and the relevant local agencies for Agriculture, Livestock, Plantation and Fisheries. The BPBD (*Badan Penanggulangan Bencana Daerah* / Local Agency for Disaster Management) and BPMPD (*Badan Pemberdayaan Masyarakat dan Pemerintahan Desa* / Village Government and Community Empowerment Agency).

Implementing Partners. There will likely be one or more implementing partners still to be identified particularly at the landscape level that will be contracted for specific duties in support of component objectives (e.g., site-specific field studies, logistical support to meetings/meetings of for a and/or ad hoc project monitoring-related studies).

At village level, the Project will work with the Village Council/inclusive village assemblies and village facilitators to plan the implementation of the peatland biodiversity activities, re-wetting, fire management and development programmes, and to support the PMO in the development and implementation of the Grievance Redress Mechanism in those villages where any households are impacted by project supported activities. Community Service Organizations (CSOs) will play an important role in facilitating village peatland management processes (e.g., the presence of Masyarakat Peduli Api and other similar groups such as Desa Peduli Gambut have shown to be essential in promoting the adoption of good practices of effective fire prevention and suppression in peatland areas in local communities).

Coordination with other projects Specific mechanisms will be established at project start up for the coordination with other related projects (as mentioned in Table 1) including IFAD Financed IMPLI, MAHFSA and TEKAD projects; IKI financed SAGU Project; USAID-financed SEGAR project as well as various GEF financed projects (see Table 9). This will depend on the exact start date of the CoPLI project and the state of implementation of the other projects. Areas for collaboration have been identified in Table 1 and 9, but this will be fine-tuned at the CoPLI project start. The coordination with other projects will be undertaken through DPDC or a coordination mechanism established with the support of IFAD at project start. In particular Output 2.3 involves collaboration between CoPLI, TEKAD and SAGU Projects to support community-based management of peatland landscapes in West Kalimantan, East Kalimantan and West Papua. The SAGU Project is under design and expected to be implemented starting in 2023, while

the TEKAD project is under implementation but does not yet incorporate peatland management approaches. The preparation for coordination for Component 3 will be discussed in further detail by the related agencies by early 2023, prior to the COPLI start-up.

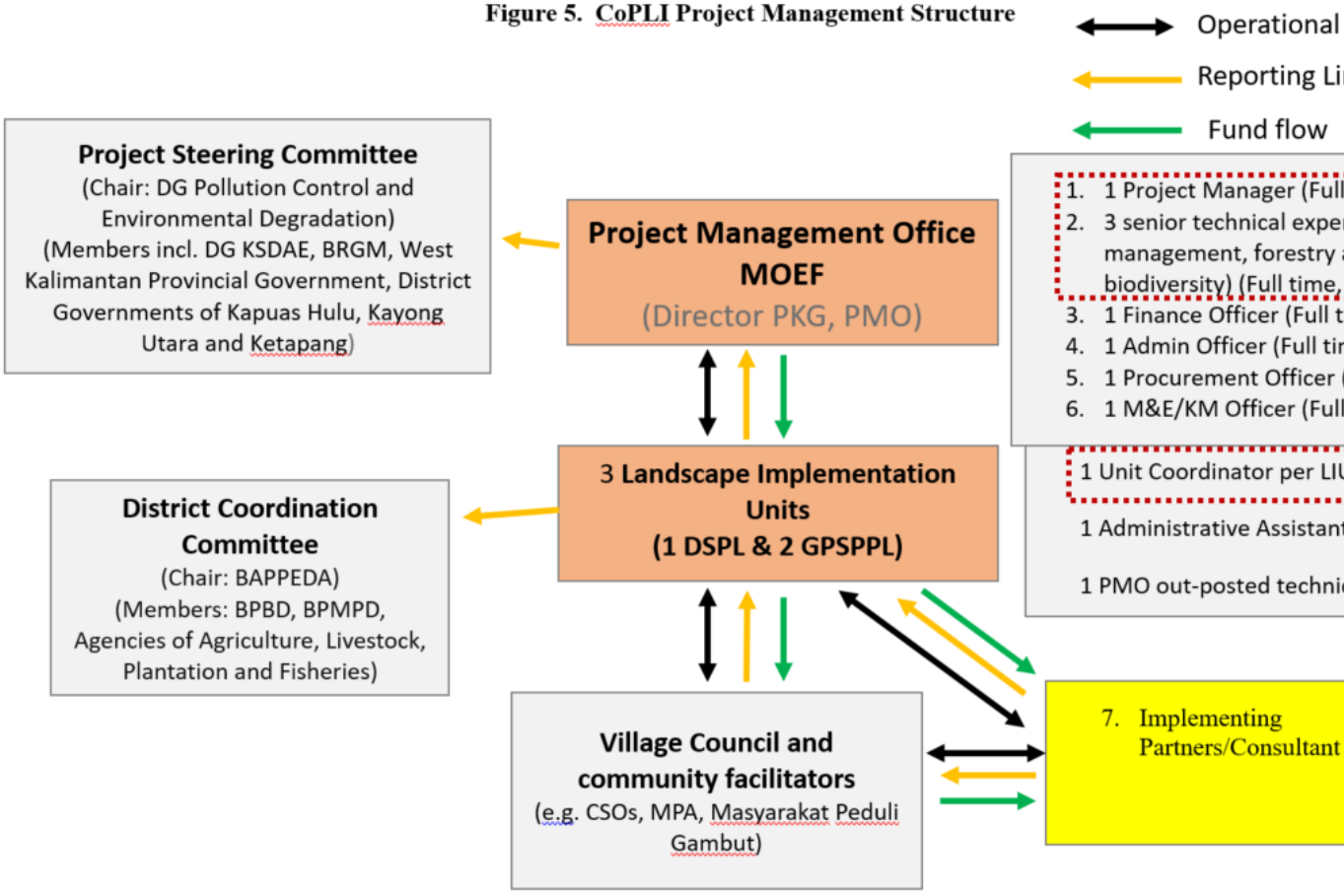
Implementation arrangements for outputs.

Implementation arrangements for each of the outputs are described in the project description section above.

Based on the above, the Project Implementation Manual (PIM) to be prepared at project start-up will provide further details on the organizational framework, the units and actors involved in project implementation, and their responsibilities.

For the overall project management structure, see Figure 5 below.

Figure 5. CoPLI Project Management Structure



A list of other relevant GEF-supported projects and means to promote coordination with CoPLI is provided in Table 9 below.

Table 9. GEF-supported Projects in the Project Area

Project Title	Description	Lead Agency	GEF Focal Areas	GEF Funding (US$)	Relevant CoPLI Components	Coordination Approach
GEF-supported Projects (global/regional)						
Strengthening sustainability in commodity and food-crop value chains, land restoration and land use governance through integrated landscape management for multiple benefits in Indonesia.	GEF7-UNDP/FAO national project as part of FOLUR-IP in 9 provinces including WK. Using a landscape approach objective is to promote transformation to sustainable production of Indonesia?s contribution to global food systems (e.g., palm oil, cocoa, rice). Main GEBs are forest land restored, landscapes under improved management to benefit biodiversity and HCVF loss avoided. Project approved in September 2021 Coordinating Ministry of Economic Affairs (CMEA) the lead GoI agency. PRODOC specifies SMPEI and IMPLI as part of baseline and need for coordination.	UNDP/ FAO	BD/LD/CC	16,213,762	Component 2	- knowledge exchange mechanism; - dissemination of project-supported products; - joint cooperation in support of selected events; - project website; - project communication activities (outreach and awareness-raising materials and events); and - participation in project-supported forum
GEF-supported Projects (Indonesia)						
Integrated Management of Peatland Landscape in Indonesia (IMPLI)	GEF6-IFAD project which focuses on scaling up implementation of PP71/2014 - PP57/2016 at national level including zoning of peatland hydrological units according to utilization and conservation zones and supporting biodiversity conservation and fire prevention and control in Northern Riau Province.	IFAD	BD/SLM/LD /	4,895,872	Components 1, 2 & 3	- knowledge exchange mechanism; - dissemination of project-supported products; - project website; and - project communication activities (outreach and awareness-raising materials and events)

Strengthening of Social Forestry in Indonesia	GEF 6-WB project which promotes inter-ministerial approach (MoEF, MOHA,MoV, MoA) focused on 5 forestry sector schemes with support for: social forestry considerations incorporated in provincial development planning; mechanisms for the management and restoration of social forestry within the production landscape established; and community land use plans prepared under consultative process. GEBs include: increased production landscapes that integrate conservation and sustainable use of biodiversity into management, accelerated reduction of GHG emissions and increased carbon sequestration and increased investment in SFM and restoration. Approved Feb 2020. MoEF lead agency. No project site in WK.	WB	SFM/LD/BD	14,317,909	Component 2	- knowledge exchange mechanism; - dissemination of project-supported products; - project website; and - project communication activities (outreach and awareness-raising materials and events)

Strengthening Forest Area Planning and Management in Kalimantan	GEF-6-UNDP project focused on maintaining forest areas including the biodiversity and ecosystem functions of Kalimantan?s lowland and montane areas from the development of estate crops with emphasis on improved policy framework and capacity of MoEF, supporting priority areas and connectivity between major forest blocks, increased awareness, improved biodiversity management in forest planning and strategic plantations/commodities estates in the target landscapes and strengthened capacity of local government.	UNDP	BD/LD/SLM	9,000,000	Component 2	- knowledge exchange mechanism; - dissemination of project-supported products; - joint cooperation in support of selected events; - project website; - project communication activities (outreach and awareness-raising materials and events); and - participation in project-supported forum

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

SDGs. Of the United Nation?s 17 Sustainable Development Goals (SDGs), CoPLI is most relevant to supporting the achievement of Goal 15 (see Table 10). It will also contribute to SDG: Goal 1: No Poverty, Goal 5: Gender Equality, Goal 6: Clean Water and Sanitation, Goal 11: Sustainable Cities and Communities, Goal 12: Responsible Consumption and Production, Goal 13: Climate Action and Goal 17: Partnerships to achieve the Goals (see Table 10 below).

Table 10. UNSDGs and Targets to Which the Project Contributes

SDG Goal	Targets	Project-supported Contributions

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	15.1. by 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Promote: (i) landscape approaches leading to the protection and management of biodiversity in targeted peatland landscapes; (ii) upscaling landscape approaches to other peatland landscapes in Indonesia; (iii) creation of a multi-stakeholder forum for peatland protection; and (iv) creation of KMC strategy to disseminate relevant information and lessons-learned.
	15.5. Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species	- see 15.1 above.
	15.9: By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts	Contribute to this target through supporting: (i) increased capacity and the development and implementation of peatland and biodiversity management plans at the national and provincial levels; and (ii) mobilizing resources for plan implementation.

CBD GFB. The project is fully in line with the Kunming-Montreal Global Biodiversity Framework adopted on 19 December 2022.[1] The Project will most directly contribute to the achievement of the four goals and nine of the associated action-oriented targets for 2030 (Table 11).

Table 11. CBD GBF Goals, Milestones and Targets (2030) to which the Project Directly Contributes.

GBF Goal (2030)	Targets	Project-supported Contributions

Goal A. The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; Human induced extinction of known threatened species is halted, and, by 2050, extinction rate and risk of all species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; The genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential. Goal B. Biodiversity is sustainably used and managed and nature?s contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050. Goal C. The monetary and non-monetary benefits from the utilization of genetic resources, and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with indigenous peoples and local communities, and substantially increased by	Target 1:Ensure that all areas are under participatory integrated biodiversity inclusive spatial planning and/or effective management processes addressing land and sea use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities,	- increase technical capacity to promote the adoption of biodiversity criteria in PHU management plans; - facilitate linkages between the RPPEG and related economic and spatial plans at national and provincial levels
	Target 2: Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity	- rehabilitation of peatlands in project-supported peatland landscapes
	Target 3: Ensure and enable that by 2030 at least 30 per cent of terrestrial, inland water, and of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem functions and services, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories, where applicable, and integrated into wider landscapes, seascapes and the ocean, while ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes, recognizing and respecting the rights of indigenous peoples and local communities, including over their traditional territories.	- Support the enhancement of the protection and management of the two existing national parks and assist with the establishment of other effective area-based conservation measures in the targeted landscapes. - supporting a model landscape management strategy to showcase how peatland landscapes can be managed with multiple stakeholders as well as through different management frameworks;

2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments. Goal D. Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the Kunming-Montreal global biodiversity framework are secured and equitably accessible to all Parties, especially developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of 700 billion dollars per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for Biodiversity.	Target 8: Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solutions and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity	- incorporate climate adaptation strategies in the management plans for the targeted landscapes - support fire risk management / mitigation measures in peatland landscapes; - promote existing water management strategies in peatlands to reduce vulnerabilities to fire hazard; and - incorporate CC-related information into national park interpretation and visitor activities
	Target 9. Ensure that the management and use of wild species are sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity, including through sustainable biodiversity-based activities, products and services that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities.	Support indigenous peoples and local to protect and sustainably use the natural ecosystems in the targeted landscapes
	Target 10. Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity-friendly practices, such as sustainable intensification, agroecological and other innovative approaches contributing to the resilience and long-term efficiency and productivity of these production systems and to food security, conserving and restoring biodiversity and maintaining nature?s contributions to people, including ecosystem functions and services	- support the integration of biodiversity conservation and sustainable use approaches into the management practices in the production landscapes in the targeted areas.

	Target 11. Restore, maintain and enhance nature?s contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and/or ecosystem-based approaches for the benefit of all people and nature.	- empower selected communities to protect and manage their peatland resources through development of Village Land Use Plans (VLUP) and peatland protection and management action plans/village regulations and enhance community-based peatland management and livelihoods; - deliver training packages on sustainable diversified models in peatlands and facilitate the development of VLUPs and Community Work Plans (CWP).
	Target 14. Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework.	-better integrate biodiversity considerations into the RPPEG at national province and district levels. Strengthen the engagement of diverse ministries and agencies in the implementation of the RPPEG
	Target 19. Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, by 2030 mobilizing at least 200 billion United States dollars per year,	- develop a resource mobilization strategy for the RPPEG

IBSAP. The country?s most recent national biodiversity strategy, Indonesia Biodiversity Strategy and Action Plan (IBSAP) 2015-2020, represents an update to the earlier IBSAP (2003-2020).[2] The main policies supported by CoPLI are: (i) to conduct research on biodiversity, data management and

documentation of biodiversity as well as management of its ownership (patent/intellectual property rights) in support of Indonesia?s needs; (ii) management of biodiversity to secure its existence for Indonesia and support the development of optimal benefit for the country; and (iii) develop the sustainable utilization of biodiversity.

The main strategies to implement these policies supported by CoPLI are: (i) biodiversity data management, (ii) promoting knowledge about biodiversity needs to be realized by maintaining biodiversity in daily activities, (iii) mainstreaming biodiversity management through national and local development plan documents as well as a strategic plan among ministries/institutions with direct responsibility for its implementation and (iv) promote the development of cooperation with non-governmental and community organizations in biodiversity management.

UNFCCC. The agriculture, forestry and other land use (AFOLU) sector is the main contributor of greenhouse gas (GHG) emissions in Indonesia. The principal sources of AFOLU emissions are from deforestation and forest degradation, peat decomposition including land and forest fires. The main challenge to accurately measure the achievement of the implementation mitigation actions in this sector is the reliability of monitoring system to detect the change of land covers and to measure emission from peat. [3]

The AFOLU sector?s technology needs that CoPLI will support include: (i) technology for integrated forest-peat carbon measurement and monitoring, (ii) technology for peatland re-mapping, (iii) technology for peat water table management, (iv) methodology to determine the peat area affected by fires including to estimate the depth of peat burn (the burnt area and peat depth with an accuracy of 5 cm).

The sector?s capacity building needs that CoPLI will support include: (i) capacity development for party and non-party actors to increase their knowledge and understanding on mitigation actions and capacity for translating NDC target into mitigation actions and access to climate finance; (ii) capacity of local governments and private (non-Party actors) in integrating climate change actions into their long-term plan and programmes; and (iii) awareness and knowledge of agent of changes (religious leaders or ulama, young generation, extension services, journalist etc.).

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[1] See CBD, 2022,Kunming-Montreal Global Biodiversity Framework CBD/COP/15/L.25 18 December, 2022

[2] The IBSAP 2015-2020 comprises the principal guidelines to be taken into account by policy-makers in the biodiversity sector, and is also intended to serve as a key reference document for implementing programmes and activities in other development sectors, be they government, private, or civil-society sectors, at either national or sub-national level.

[3] MoEF, 2021. Indonesia: Third Biennial Update Report. Directorate General of Climate Change, Ministry of Environment and Forestry, Jakarta.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Under the project?s knowledge exchange and communication (KEC) Output 3.2, CoPLI has the following three objectives: (i) influence national policies to increase financing to scale up forest and peatland conservation and related management activities; (ii) strengthen project implementation through building the capacity of relevant staff and institutions involved in peatland conservation as well as harmonize activities of implementation partners including co-financiers sharing project practices; and (iii) enhance knowledge of local communities particularly on conservation and related sustainable management of forest and peatlands.

The project?s main KEC approaches and tools will be to: (i) develop and implement a KEC plan; (ii) facilitate linkages with other relevant on-going initiatives (e.g., ASEAN Programme on Sustainable Management of Peatland Ecosystems (APSMPE), the International Tropical Peatland Center (ITPC) and the Global Peatland Initiative (GPI); (iii) monitor and continuously upgrade the KEC plan; and (iv) raise awareness of local communities and the public on key peatland biodiversity aspects, as well as conservation practices and alternative sustainable livelihood practices. CoPLI?s KEC plan will be closely linked with the project?s Management Information (MIS) and Monitoring and Evaluation (M&E) systems.

The Project will also support a number of technical workshops and consultations at the national level to review and assess activities and outputs of the Project and discuss how they can be better translated into long-term outcomes. A project website will be developed where documents will be stored and shared with project partners, regional initiatives and general public. The experiences of the Project would be further disseminated by posting regular reports on a project website and relevant portals.

Anticipated KEC products include: policy briefs, project briefs, and technical guidelines including infographics on forest and peatlands issues and articles, and via user-friendly and accessible electronic media using mobile technology and websites. Further products will be identified as part of the project activity of developing KE and communication plan.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The CoPLI M&E system is designed to provide reliable information to facilitate results-based management of the Project. The main objectives of the project?s M&E system are to: (i) guide project implementation, (ii) document convincing community and landscape restoration/conservation models and (iii) inform policy making.

The M&E system will support monitoring at the objective, outcome and outputs levels. Apart from the aforementioned three levels of monitoring, the Project will also monitor processes leading to outputs and outcomes. The GAP, SECAP and SEP (includes grievances) will form part of the overall M&E system. Where relevant, system will be data disaggregated by poverty and gender.

Noting that recent academic syntheses of peatland restoration and conservation (e.g. Harrison et al 2019, Hergoualc?h et al 2017) have noted the lack of agreed standards for measuring the impact of interventions; the difficulty of identifying suitable targets due to the multiple possible outcomes (e.g. wetting, fire prevention, sustainable livelihoods); and the complexity of on the ground work with communities due to multiple stakeholders and competing interests ? significant effort will be taken at the project inception and following the baseline report preparation, in developing clear targets and indicators at the site level and clear responsibilities for monitoring and reporting and attributing the result to specific interventions.

The M&E data would be collected through the following mechanisms: (i) baseline assessment at the beginning of the project period; (ii) technical monitoring and progress reporting by Project team and partners (iii) tracking of RPPEG preparation and implementation by respective implementing units at national , provincial and district levels (iv) landscape and site level monitoring and reporting (ii) village-level reporting on implementation in relation to Village land use plans and Community Action Plans, (iii) impact surveys and (iv) ad hoc data collection studies.

The project?s Management Information System (MIS) will be established in the first year of project implementation. The system would provide information on physical and financial progress, procurement plans and progress on baseline conditions, outputs and outcomes and other pertinent information. These would be automated to generate regular periodic reports and annual progress reports. Project reporting will include: (i) project inception report, (ii) progress reports, (iii) annual work plan and budget (AWP/B), (iv) project implementation report (PIR) and (v) Co-financing Reports. The PMO will be responsible for collecting the required information and reporting on co-financing as indicated in the CEO Endorsement Request. The PMO will compile the information received from the implementing partners and transmit it in a timely manner to IFAD. The report, which covers the period 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The format and tables to report on co-financing can be found in GEF?s PIR template. SECAP and GAP monitoring will be subsumed under the overall project monitoring framework.

CoPLI?s M&E Framework is presented in Table 12 below. More detailed information is provided in CoPLI?s M&E Plan in Annex 7 in IFAD?s Project Design Report.

Table 12. Monitoring and Evaluation Framework.

Type of M&E Activity	Responsible Parties	Time-frame	Budget (USD)
Inception Workshop (govt)	PMO	Within two months of initiation of project implementation	50,000
Project Inception Report (govt)	PMO (M&E Officer)	Within two weeks of inception workshop	11,000
Baseline survey (GEF/govt)	MoEF/consultants/firm	Within six months of project implementation	59,000
GHG emission reduction and biodiversity monitoring (GEF/govt)	MoEF/consultants/firm	Semi-annually	69,000
Project Progress Reports (PPR)	M&E Officer with inputs from project implementing stakeholders	Quarterly, Sem-annually and Annually	NA*
Annual Work Plan and Budget (AWP/B)	Finance Officer	Annually	NA**
Project Implementation Review (PIR)	M&E Officer with inputs from all project implementing stakeholders	Annually (July)	NA*
Co-financing Reports	M&E Officer with inputs from all project implementing partners	Annually	NA*

GEF Tracking Tools	M&E Officer with inputs from project-supported national parks	At mid-point and terminal evaluation	NA*
Mid-term Review (GEF)	Consultant	At the mid-point	20,000
Terminal Evaluation (GEF)	Consultant	At least three months before operational closure	51,000
Ad hoc data collection studies (govt)	Consultant/institutions	Assumes 1 per year (4)	14,000
Subtotal			275,000
FT M&E officer (GEF)	Consultant	Full-time	66,000
FT Social Safeguards Specialist (govt)	Consultant	Full-time	166,000
Total			507,000

* Included in salary and TORs of FT PMO M&E professional.

** Included in salary and TORs of FT PMO Finance professional

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The Project is expected to generate significant long-term socio-economic benefits and reduce substantial negative socio-economic impacts from current peatland management practices. The most important ecosystem services delivered on peatlands are livelihood provisions, biodiversity conservation and hydrological services. For livelihood provisions, the project will focus on enhanced sustainable production of agriculture, non-timber forest products include fish and honey, peatland ecotourism and associated activities of handicrafts.

For biodiversity conservation, the Project will enable plantations and agroforestry in sites to adopt best management practices, as well as through co-management with the local community groups on the Community Conservation Areas, in particular the HCV/HCB areas in village land. By better protection and rehabilitation of peatlands, surface and subsurface water supply for agriculture and domestic will be maintained. In targeted landscapes, the Project is also expected to reduce negative socio-economic impacts. Foremost of which is security in utilizing the lands they work on, inasmuch as the plans will recognize and harmonise areas that adhere to traditional and customary natural resource management and agricultural practices. The livelihood support that promotes local sustainable practices such as fishing, bee-keeping, and NTFP extraction will be enhanced towards increased household incomes that empowers the women. Labor absorbed by oil palm companies applying RSPO principles that lead to good practice (ie, fair wages and benefits, as well as occupational health and safety measures). Improved peatland and protected management will also lessen incidence of forest fires and result to improved health conditions. Disaster risk management will enhance climate change adaptation capacities of local communities thereby reducing damage (from fire and flooding) to properties and lives. It is envisaged that enhanced ecosystems services and biodiversity within the landscapes, will lead to reduced fragmentation and increased resilience.

There are approximately 10,000 and 165,000 people living in the DSPL and GPSPPL respectively, of which approximately 33,400 people are living in the 16 pre-selected villages for project intervention. This

population will benefit largely from reduced risk of peatland fires and associated smoke haze (and associated health impacts). It is anticipated that the engaged households will directly benefit from project activities through enhanced livelihoods related to sustainable agriculture, plantations, forestry, and ecotourism.

The direct positive social impacts from CoPLI will include benefits derived primarily from activities supported at the landscape level under Component 2. These include: (i) improved livelihoods associated with support for new technologies and achievement of increased efficiencies targeting participating communities traditional livelihoods (e.g., planting on shallow peat, collecting wild honey and other non-timber forest products); (ii) development of new sustainable livelihoods compatible with project objectives (e.g., ecotourism); (iii) new employment opportunities associated with co-management and conservation of activities in the national parks and local community efforts directed at fire conservation and control; and (iv) greater access to social forestry schemes.

Indirect social benefits will include promotion of: (i) enhancing understanding on government land use classification and approval systems that could reduce conflicts and lead to more productive use of the land by small farmers; (ii) improved life quality of selected communities achieved through VLUPs supporting improved welfare conditions (e.g., facilities for clean water supply); (iii) reduced risk to fire associated with the adoption of improved fire prevention measures; (iv) reforestation of non-productive lands in areas impacted by forest and land fires; and (v) reduced risk to climate-related floods achieved through the incorporation of flood risk adaptation measures into the VLUPs.

It is anticipated that communities living in the targeted peatland landscapes will have a better understanding of the goods and services provided by the peatlands ecosystem and the need to maintain the peatlands to ensure the sustainability of the adjacent production landscapes (especially through water supply). This will support measures to protect the remaining critical ecosystems and associated biodiversity as well as to reduce peatland fires and drainage and associated GHG emissions. Hence socio-economic benefits will support the safeguarding of global environmental benefits.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

The Project is classified as Category B (moderate risk) consistent with IFAD?s Social, Environmental and Climate Assessment Procedures (SECAP). The Project will cover two national parks and ecologically sensitive areas like wetlands/peatlands outside of the national park boundaries, but it will not undertake any development which will create irreversible and adverse impact on the environment. CoPLI activities will focus on protecting and rehabilitating wetlands with project interventions that will support conservation of forest and peatland ecosystems as important habitats. There will be no new development or land clearing activities under the project since the purpose is to support biodiversity conservation in these areas and promote diversified alternative livelihoods to reduce pressure and impacts from local communities on the ecosystems. Key activities will include fire prevention, rewetting of drained peatlands, rehabilitation of degraded forests etc.

The Project is classified moderate for climate risk classification. The project areas indeed are subject to extreme climatic events: (i) Danau Sentarum Peatland Landscape is at times impacted by extreme rainfall and flooding as well as droughts that lead to drying out of the lake system, and (ii) Gunung Palung-Sg Putri Peatland landscape is affected by periodic droughts which contributes to increasing peatland degradation and fire risks. However, it is not expected that these will have a major impact on project activities or impact as the project is focused on reducing risks of flood and fire. It is envisaged that these risks should be reduced over the course of the project.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Annex 4-PDR-SECAP review note	**CEO Endorsement ESS**	
PIF-10731-Indonesia-Annex 9-ESS	**Project PIF ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective: To conserve biodiversity and enhance livelihoods through a strengthened institutional framework and community-based conservation of peatland ecosystems in Indonesia. .							
GEF 7 Core Indicators	GEF indicator 1: Terrestrial protected areas created or under improved management for conservation and sustainable use (hectares)	0	80,000 Ha	235,437 Ha	- METT[1]	- METTS application consistent with baseline methodology and NP staff respondents	DGCNRE (MoEF); PMO technical adviser and M&E officer
	GEF indicator 4: Area of landscapes under improved practices (excluding protected areas) (hectares)	0	50,000 Ha	125,550 Ha	Project landscape reports		DGPDG (MoEF) M&E officer PMO and participating stakeholders
	GEF indicator 6: Greenhouse Gas Emissions Mitigate (Mt of CO2e)	0	0.5	1.5	Monitoring of parameters in relation to the Peat-GHG Tool and the NDC Expert Tool (NEXT)	- methodology accurately measures GHG-related peatland benefits derived from project	MOEF GHG unit

	GEF Core 11: Number of direct beneficiaries disaggregated by gender, age and IP as co-benefit of GEF investment (number)	0	1,000 (at least 40% women)	3,200 (at least 49% women and 40% IP)	; review of implementing partners reports	- willingness of local stakeholders (women and youth) to participate in project-supported activities	implementing partners CoPLI (PMO) M&E officer
Component 1: Institutional framework for peatland and biodiversity conservation at national and provincial levels.							
Outcome 1. Strengthened capacity and plans formulated and adopted, supported by additional resources for peatland protection and improved management at national level and targeted provinces.	Level of new financial resources generated in support of peatland protection and management by different agencies	none	At least US$5 million in new resources in 3 agencies	At least $20 million new resource in 5 agencies	Report on implementation of strategy, Reports from different ministries, National budget documents	Continuing political will to protect and management peatland ecosystems	Director DPDC; PMO M&E officer PMO technical adviser
	Number of agencies from different ministry actively engaging in RPPEG implementation	2 agencies from one ministry actively involved in RPPEG implementation	6 agencies from two ministries actively involved in RPPEG implementation	10 agencies from four ministries actively involved in RPPEG implementation	Project progress reports Annual RPPEG implementation reports	Different agencies and ministries will share information on their actions in a timely manner	Director DPDC PMO technical adviser and M&E officer

Output 1.1. Increased capacity to implement RPPEG at national and sub-national level.	- RPPEG implementation plan (2025 ? 2029) adopted and annual reports on implementation prepared	No implementation Plan	1 implementation plan adopted	3 annual reports on implementation of plan	- Implementation plan Annual progress reports	- timely inputs into RPPEG formulation process - reports prepared and submitted on a timely basis	Director DPDC PMO technical adviser and M&E officer
Output 1.2. Increased engagement of different sectors and agencies at national level for peatland protection and management.	No of individuals and agencies provided training related to peatland protection and management (gender disaggregated)	None	100 individuals from 5 national level agencies with at least 30% women	800 individuals from 10 national level agencies, with at least 30% women	Report on training Participant lists		M&E officer
Output 1.3 Strategy for mobilizing resources for protection and management of peatland ecosystems and RPPEG implementation, developed and implemented.	Stage of development and implementation of resource mobilization strategy	No strategy	Strategy adopted	Strategy developed and actively implemented and reported	Report on implementation of strategy Reports from different ministries National budget documents	- broad and diverse multi-stakeholder participation in plan preparation - political will and budget to implement RPPEG	Director DPDC PMO M&E officer PMO technical adviser

Output 1.4. Enhanced technical capacity and support for peatland assessment and RPPEG development and implementation in West Kalimantan	Number of districts in West Kalimantan with RPPEG prepared	None	3	5	Project progress reports Report on RPPEG implementation	Districts have enough resources to prepare RPPEGs	PMO M&E officer PMO technical adviser
Component 2: Community-based management and conservation of peatland systems in targeted landscapes							
Outcome 2. Improved Protection and management of biodiversity in targeted peatland landscapes in partnership with local government, community and private sector.	Level of increase in score in Protected Area Monitoring and evaluation tracking tool (METT) for DSNP and GPNP	To be updated at start of project implementation	5 % increase from 2023 baseline	10% increase from 2023 baseline	- Monitoring and evaluation tracking tool (METT)s	- METTS application consistent with baseline methodology and NP staff respondents	DGCNRE and PMO technical adviser and M&E officer
	Area of landscape outside national parks under improved sustainable management in DSPL and GP-SPPL (refer details in Annex F)	none	50,000 ha	282,000	Project landscape report		PMO technical adviser and M&E officer
Output 2.1. Peatland and biodiversity protection and management in Danau Sentarum Peatland	No of villages with improved co-management of natural resources in DSNP	NA	2 villages	4 villages	- assessment reports and legal declarations of new PHUs-	willingness of local community to co-manage resources	DSNP DGPDG and PMO technical adviser and M&E officer

Landscape enhanced through government and community action.	Area of DSPL outside of national park better managed th rough cooperation between DSNP, communities and Forest management Units[2]	None	15,000ha	138,000ha	Project landscape monitoring reports	- willingness of local stakeholders to participate in the project-	DGPDG and PMO technical adviser and M&E officer
Output 2.2. Improved multi-stakeholder institutional arrangements and coordination in support of peatland and biodiversity protection and management in Gunung Palung-Sg Putri Peatland Landscape.	No of villages with enhanced working with GPNP for park protection and fire prevention	none	2 villages	4 villages	Project reports Reports from GPNP	- willingness of local community to help protect the park	PMO technical adviser and M&E
	Area of GP-SPPL outside national park better managed th rough cooperation between GPNP, communities and private sector and NGOs1	None	40,000ha	146,000ha	Project landscape monitoring reports	willingness of local stakeholders to participate in the project	PMO technical adviser and M&E officer

Output 2.3. Community-based conservation of peatlands promoted and scaled-up to other provinces and landscapes.	Number landscapes and , provinces with peatland protection and management activities scaled-up through project	none	2 landscapes in one province	4 landscapes in 2 provinces	- Periodic Reports on scaling up co-financing reports	- willingness of additional stakeholders to participate in scaling up activities Level of co-financing for scaling up	M&E officers PMO technical adviser
Component 3: Knowledge exchange, communication and monitoring to support peatland protection and management							
Outcome 3. Enhanced knowledge exchange, communication and monitoring of peatland biodiversity	Number of new approaches[3] to peatland protection and management being newly applied by different stakeholders	None	5 new approaches to peatland protection and management being applied by stakeholders from 3 stakeholder types	8 new approaches to peatland protection and management being applied by stakeholders from 4 stakeholder types	- results of surveys from members of multi-stakeholder stakeholder forum	Sufficient responses from target groups	KEC and M&E officers M&E officer
Output 3.1. Multi-stakeholder forum to support peatland protection and management.	Number of stakeholders from different stakeholder types[4] actively involved in forum and supporting peatland protection and management	No stakeholder forum established	10 stakeholders from 2 stakeholder types	25 stakeholders from 5 stakeholder types	Record of membership, meetings and actions of multi-stakeholder forum Record of actions by member stakeholders	- sufficient interest in creation and space for a peatlands forum -	PMO KEC officer M&E officer

Output 3.2. Active knowledge exchange and communication (KEC) programme at local, national and international levels on community-based peatland ecosystem protection and management.	Number of KEC materials developed and disseminated through different channels to stakeholders	No new KEC materials	5 KEC materials disseminated through 2 channels to 500 users	20 KEC materials disseminated through 5 channels to 3000 users	List of KEC products and records of dissemination channels and users	-	PMO KEC officer M&E officer
Output 3.3. Enhanced information system for monitoring of biodiversity in peatland ecosystems and RPPEG implementation.	Enhanced SIPPEG System with number of users from different sectors	No enhanced system	SIPPEG enhanced to incorporate biodiversity and 50 users from 1 sector	SIPPEG System enhanced to incorporate biodiversity and RPPEG implementation with 500 users from 8 sectors	Reports on SIPPEG System development and functioning. User registrations and logs	SIPPEG System is made available to users from multiple sectors	M&E officer DGPDG KEC officer
Output 3.4: Monitoring and Evaluation effectively implemented	M&E plan and project reports in line with IFAD and GEF requirement (number)	None	8	17	Inception report, M&E plan, PIRs, PPRs, Terminal Report	Project stakeholders share reports and progress information in a timely manner	M&E officer
Project Safeguards							

Gender is mainstreamed in the project activities and management	GAP is implemented and implementation monitored	NA	GAP is implemented and implementation monitored 1	GAP is implemented and implementation monitored 2	Review of knowledge products	Executing partners are receptive to the need to encompass gender equality and promote women?s participation in peatlands conservation and management	PMO/M&E officer
SECAP Recommendations	Level of implementation of SECAP recommendations	NA	60%	90%	Annual report on SECAP implementation	Adequate expertise in Ministry and local partners to implement	PMO Project Manager PMO/M&E officer

[1] The METT data from both National Parks (Danau Sentarum and Gunung Palung) were formally taken from Ministry of Environment & Forestry (MoEF) internal information. The detailed data are:

- Danau Senatrum latest data taken in 2019 with the total number is 82
- Gunung Palung latest data taken in 2021 with total number is 77

The target of the CoPLI is at least to stabilize or even better to increase the number with quality results (not only just number) and if needed to develop corrective-actions for the documents for better management of the national park with the support from the community who stay inside (Indigenous people) and buffer zone area. Priority will be placed on enhancing the management of the peatland ecosystem within the national park as this is not currently emphasised ion the management systems and practices.

The METT should be conducted regularly by National Park minimum once per two years. The MoEF has allocated a regular budget to do this. However, CoPLI project can support to enhance the capacity of facilitator or assistant of facilitator in each NPs.

[2] Details of criteria for determining improvement in land management will be defined at project start and included in M&E manual. Breakdown of target areas are in Annex F section 4.

[3] New approaches being applied by stakeholders are new approaches to peatland management and protection (e.g., paludiculture crops, new peatland product processing or marketing options, community engagement approaches, peatland rewetting, peatland rehabilitation etc.), being used by the different stakeholders in the multi-stakeholder forum being based on information learned from other Forum members or promoted through the forum. Data will be generated through surveys or self-declaration by forum members. Guidance on monitoring this will be included in the M&E manual to be developed at the start of the project period.

[4] Stakeholder Types: Government agencies, private sector peatland managers; private sector finance and investors; research and academia; civil society; international organizations. Definitions will be included in the M&E manual develop at the start of the project period.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments from the Scientific and Technical Advisory Panel (STAP) Scientific and Technical Screening of the Project Identification Form

Date of screening: 18 May, 2021

Member screener: John Donaldson

Secretariat Panel screen: Alessandro Moscuzza

Part I: Project Information: STAP Overall Assessment Rating: ?other aspects of the proposal were found to be lacking in clarity, sufficient detail and in some cases even coherence. Among these should be highlighted the components, outcomes and outputs structure, which was found to be in need of substantial revisions, as well as the theory of change, which was found to be lacking in a number of areas. In addition, recent academic syntheses of peatland restoration and conservation (e.g. Harrison et al 2019, Hergoualc?h et al 2017) have noted the lack of agreed standards for measuring the impact of interventions; the difficulty of identifying suitable targets due to the multiple possible outcomes (e.g. wetting, fire prevention, sustainable livelihoods); and the complexity of on the ground work with communities due to multiple stakeholders and competing interests. The PPG should spell out how these challenges will be addressed.?

The project team has addressed the specific comment here in the M&E section in the CER (Part II sub section 9) As well as the total reworking of the TOC and clarification and elaboration of targets. In addition, the other elements behind the overall assessment have been addressed in comments below.

Part I: B. Indicative Project Description Summary: Project Components: ?Component 1 included three fundamental elements of the project (i.e. institutional framework, development of multi-stakeholder partnerships and sustainable financing), but in our view, these were not assembled in a coherent logical fashion that would support a strong theory of change or causal pathway to impact. The institutional framework element should have probably been kept in a separate component from the rest and the link between creating a partnership framework and sustainable financing should have been better explained. STAP advises the implementing agency to review this section of the PIF.?

The project team thanks the reviewers for their comments and addressed them in the project document through a total reworking of of component 1 and elaboration of the different outputs and the relations between them. The partnership framework has been moved to Component 3 as a separate output while the sustainable financing is more closely tied with the financing needed for implementation of the National Plan for Protection and management of peatland ecosystems (RPPEG).

Part I: B. Indicative Project Description Summary: Outcomes (a): ?Outcome 1 was constructed from two completely disjointed elements (i.e. an improved policy and regulatory framework, which was inappropriately combined with a ?financial framework?, and an increase in financing for conservation and community development generated through new financial instruments). Even though these elements are obviously related (and somewhat dependent) to one another, they are not one and the same, and should not be merged into one outcome without a specific explanation of how this would be done and why. STAP strongly advises the implementing agency to review this section of the PIF ?

The project team thanks the reviewers for their comments and addressed them in the project document through a total reworking of of component 1 and elaboration of the different outputs and the relations between them. The partnership framework has been moved to Component 3 as a separate output while the sustainable financing is more closely tied with the financing needed for implementation of the National Plan for Protection and management of peatland ecosystems (RPPEG). The outputs in Component 1 are now sequenced in a more logical order with Outputs 1.1supporting the improved medium-term planning and reporting on the RPPEG); Output 1.2 strengthening the engagement and capacity of the key national level stakeholders (ministries, directorate generals and agencies) specified as partners in the implementation of the RPPEG; and output 1.3 developing a resource mobilization plan to support the implementation of the RPPEG. Output 1.4 is now the support for decentralization of the RPPEG implementation to Province and district level in West Kalimantan

Part I: B. Indicative Project Description Summary: Outcomes (b): ?If the activities described in part II of the PIF are implemented as indicated, then the GEBs listed in the project proposal are likely to be achieved. However, this is not evident from reading part I of the PIF, which we suggest should be revised as indicated above. In addition, the project should specify how the GEBs are going to be measured. The outputs refer to ha?s of rehabilitated land or land under improved management and these could refer to a variety of possible states depending on what factors are emphasized.?

The project team thanks the STAP reviewers for their comments and have incorporated the suggested changes in the project document. With respect to GEB measurements, project core indicators and their measurements are determined by GEF. In the case of terrestrial protected areas these are either newly created areas or areas brought under improved management measured in number of hectares. The CoPLI project is focussing on the enhancement of existing Protected areas in the two targeted landscapes (namely Danau Sentarum and Gunung Palung National Parks which will receive support directed at improving management effectiveness as measured with the GEF Monitoring and Evaluation Tracking Tool METT). The project will also explore the option of areas designated as conservation areas under the National Regulation of Protection and Management of Peatland Ecosystems to be classified as

Peatland Protection Zones (PPZ) be classified as being an ?Other Effective Area-Based Conservation Measure (OECM)? in line with guidance from CBD Decision 14/8. However, this may depend on adjustments to Indonesia?s national Biodiversity Strategy and Action Plan following CBD COP 16 in December 2022. For further information See Annex 6 in IFAD?s Project Design Report.

Part I: B. Indicative Project Description Summary: Outputs: ??output 1 & 2 present a number of incongruencies and are also disjointed in places, furthermore some outputs should be upgraded as outcomes and vice versa. For example: output 1.1. should be an outcome not an output; output 1.2. while adequate by itself, is disjointed from the relevant project outcome and component; output 1.3 would fit well as an output under output 1.1, if this was ?upgraded? to be an outcome, but at present is disjointed from the logical flow of outcome and component 1 in is current state.?

The project team thanks the reviewers for their comments and addressed them in the project document through a better definition of the outputs, a revised TOC and minor changes to the Outcome definition.

Part II: Project Justification: 1. Project Description: (barriers and threats): ?references? should be added to ?substantiate the data and facts? [provided in the PIF]

The project team agrees with the comment from the STAP reviewer and have added a number of supporting references in the footnotes.

Part II: Project Justification: 1. Project Description: (theory of change): ?The core proposition of the Theory of Change for this Project holds that by putting in place systems for integrating biodiversity in peatland and forest policy, regulatory and financial frameworks, conservation of globally significant threatened species and enhancement of rural community livelihoods will be achieved. Currently, agricultural-driven forest and peatland ecosystems degradation and habitat fragmentation, resulting in significant biodiversity loss in forest and peatland landscapes, are the consequences of a set of barriers that result in management deficiencies?

The project team has addressed this comment through incorporating changes to the TOC narrative (see paras 42 - 47) and Figure 1 in IFAD?s Project Design Report.

Part II: Project Justification: 1. Project Description: (mechanisms of change plausible): ?highlighted also a number of weaknesses: (i) the causal pathway to impact (which should normally connect proposed project activities to outputs, outcomes and ultimately the project objective) presented a number of gaps and inconsistencies. For example, we struggled to see the connection between Output 1.1. (Strengthened peatland conservation institutional capacity, processes and mainstreamed biodiversity conservation) and what was apparently listed as a sub-output (At least 5 new/updated guidelines or sub-regulations developed and applied to integrate biodiversity outcomes in specific peatland regulatory frameworks). ; (ii) We found the same for output 1.2 (Assessment and monitoring of peatland landscapes in targeted provinces and identification of priority landscapes for conservation) and its sub-output (162,000 hectares of peatland rehabilitated following mapping, planning and implementation of natural revegetation and use of native species and 200,000 hectares of new peatland areas to be conserved identified), Output 2.2 and to a lesser extent output 2.1.; (iii There were no assumptions or potential risks built anywhere in the ToC flow; (iv) We could not find a ToC diagram or any other form of illustration, which would have helped greatly in visualizing the intended impact pathway(s). This raises the question about whether all the outputs are plausible within the project timeframe. The project should specify whether these constraints apply to Outcome 2 and how they will be addressed in order to meet the proposed targets.

The project team thanks and agrees with the STAP reviewer?s comments and observations. As noted above there has been better definition of the outputs, a revised TOC and minor changes to the Outcome definition.

Part II: Project Justification: 1. Project Description: (incremental costs): ?if no adverse factor should have seen stated in the assumptions.?

The project team has addressed this comment through incorporating changes to the TOC narrative (see paras 42 - 47) and Figure 1 in IFAD?s Project Design Report.

Part II: Project Justification: 1. Project Description: (indicators for measuring GEBs): ?proposal includes a table that compares three sets of indicators that the project will contribute to but did not appear to include a M&E plan or methodology explaining how the GEBs or adaptation benefits will be measured. This is an important issue given the apparent lack of standards for measuring impacts in peatlands and for possible conflicting targets. STAP advises that the project implementing agency should aim to develop a more detailed M&E plan including a suit of specific indicators, which should be informed by the TOC.?

The project team thanks the STAP reviewers for their comment. A more detailed M&E plan has been prepared following the in-country preparation in March 2022 (see Annex 7 in IFAD?s Project Design Report). Indicators and targets for the projects are described in detail in the results framework in Annex A of the GEF CER.

Part II: Project Justification: 1. Project Description: 2. Stakeholders: ?This is definitely one of strongest aspects of this project proposal as a whole.?

The project team thanks the STAP reviewers for their comment.

Part II: 2. Project Description Summary: 5. Risks: ?the PIF for this project included a risk section, which identified and scored a number or risk categories, as well as proposing mitigation action for each category. Our review concluded that the risk categories identified were adequate for a project of this kind and comprised a reasonably wide range of topics, however we suggest that the COVID 19 risk category should be upgraded to ?medium? at least in the short term?

The project team thanks the STAP reviewers for their comment. The COVID 19 (and other risks and their respective rankings) have been updated in the project document. Specifically, with respect to the COVID 19 risk the project team has addressed this is Table 9 of section 5 IFAD?s Project Design Report. It should be noted that the comment by STAP was made at the start of the COVID-19 pandemic, but the Project will likely be implemented in late 2023 when the pandemic possibly will be moderated. Other emerging issues are being considered such as the impact of the Ukraine crisis driving up the prices and demand for oil palm which may increased the pressure on the landscape for development of oil palm. This is included has been referenced in the TOC section under the subsection on drivers of change. However, it appears to be transitory with the price of palm oil dropping by early July 2022 to 50% of its peak immediately after the start of the Ukraine conflict.

Response to Comments from GEF Council Review of the Project Identification Form

United States:

We note the project offers a commendably comprehensive list of organizations/institutions to be part of the Free, Prior, and Informed Consent (FPIC) process. This notwithstanding, the omission of AMAN (the Indigenous People's Alliance / Aliansi Masyarakat Adat Nusantara) is notable, given their commitment to working with indigenous communities. We recommend the project implementors engage with AMAN, and meaningfully engage these communities in a participatory process

The project team thanks the United States for its comments. The omission of AMAN in the PIF has been fully addressed during the subsequent project preparation process. AMAN has been active consulted and engaged in the project design process to advise on FPIC and indigenous peoples? engagement AMAN representatives have been consulted in Jakarta, Pontianak and Putisibau.

Norway/Denmark

The project seems well argued for and responds to some of the key challenges in peatland management in Borneo. The West Kalimantan Province has widespread poverty and the IFAD approach to combine livelihood enhancement with biodiversity conservation is probably the only realistic approach.

The project team thanks Norway and Denmark for their support.

The ToC is plausible, and the components included in the project are relevant and necessary. However, contextual information about general policy, as well as peatland management and governance need updating.

The project team fully agrees with this observation and refers to paragraphs beginning with para. 8 thru 21 in IFAD?s Project Design Report. where information on policy, peatland management and governance has been updated

The proposal focuses more on (community-based) biodiversity conservation rather than conservation of peatland. The geographical focus of the proposal is not clearly specified but states West Kalimantan, particularly in 2 national parks (Gunung Palung and Danau Sentarum), which both are peatlands. The potential geographical areas for scaling up are not that specific. The capacity building part is in itself a no-regret intervention but the idea of ?extending? the conservation area into privately owned-managed land is interesting (from ecological and economical perspectives), and could provide some good lessons learned for similar cases.

The project team thanks Norway and Denmark for their comment. The absence of the detail was due to the constraints associated with the pandemic and inability to travel to the field. Fortunately, the situation has improved and a detailed preparation mission went to the field in March 2022. More detailed information has been provided in the project documents on the geographic areas for scaling up (see paras 40 ? 41 and Annex 12 in IFAD?s Project Design Report). In addition, more detail can be found on agreed on partnerships with the private sector and NGOs with national park management (see paras. 25 -26 and section 4 in IFAD?s Project Design Report).

The section on financial sustainability shows that this project is but a tiny contribution to the big investment needed to attain the national goals on peatland conservation. Nevertheless, this project may contribute models that can be upscaled, and methods for obtaining co-financing to future projects for peatland conservation and restoration.

The project team thanks Norway and Denmark for their comment. It is hoped that partnering with the Ministry of Villages, Disadvantaged Regions and Transmigration (MoVDRT) through the IFAD-funded TEKAD project would result in significant upscaling of the project?s experiences and lessons learned derived from West Kalimantan to the TEKAD provinces in Eastern Indonesia comprising peatlands.

On the monitoring of peat management, the project aims to support MOEF (Ministry of Environment and Forestry) to actively monitor impacts of peatland management inside the companies? concessions ? but the proposal does not specify any existing peatland/water table monitoring tools, such as Simatag 0.4, PRIMS, Sipalaga, among others.

The project team thanks Norway and Denmark for their comment. Peatland/water table monitoring tools is addressed under Output 3.3 of the IFAD CER.

Similarly on the village and livelihood development program, the proposal focuses on IFAD?s own project. There are a number peat-village-community-development programs that the project could reflect on (MPA of MOEF, Desa Peduli Gambut of BRG(M)) that could strengthen the project.

Peat-village community development programmes are referenced and incorporated (see section 2 in IFAD?s Project Design Report, Table 3 in The GEF CER and the List of implementation Partners in the GEF CER It has also been included as an additional activity under Outputs 2.1 and 2.2).

Studies and past interventions that have been done and trialed, have found that Land tenure is a key issue in Indonesia ? for which GOI introduced Agrarian Reform and Social Forestry Program. Noting the focus of the intervention, it?s understandable that this is not shown or highlighted ? yet we recommend IFAD inquires more about this, particularly in regard to significance of land tenure for the sustainability of the intervention .

In the landscapes in Component, 2 linkages to and support for social forestry actions as well, as land tenure issues is included as specific actions in Outputs 2.1 and 2.2.The project will support social forestry activities in the two target landscapes outside of the designated national parks. In DSNP, the project will support implementation of co-management activities in areas where there is an mutual understanding between the national park and community on access and rights. In both landscapes the project will work with Indigenous peoples who have recognized resource use or land rights in the landscapes.

Some actual deliveries (outputs) are too broad, too optimistic and need to be made clearer. RPPEG has been made obligatory for Provinces and Districts since 2016 ? but many of them have yet completed these, let alone integration with spatial plan. We are not particularly sure, but spatial planning circle of the province ended in 2019 ? and the next opening would be in 2024 (this coincides with the end project period, thus could work well should everything tick).

The project team thanks Norway and Denmark for their comment The outputs have been focused and better defined. Linkages between the RPPEG and the spatial planning has been highlighted and will be a specific part of the project under Component 1 and 2. It is hoped that once the RPPEGs are developed they can contribute to the next round of spatial planning in 2024.

It?s positive that IFAD has a specific carbon sequestered target. We are uncertain about how the target is estimated particularly because of the peat and its link with the NDC and FOLU Net Sink-2030.

Details on carbon calculations are in Annex 8 in IFAD?s Project Design Report.

Furthermore, while the province is not specified as a target of food estate program, the Omnibus Law of Cipta Kerja has provisions to prioritize economy/ investment/ employment above all else. This project could be a good litmus test, as we assume the National-park part would likely to remain untouched ? but the areas outside the National Park can be influenced by the Omnibus Law. We observe that the proposal does not include any spatial nor specific information or legal socio economic information about specific target location to provide an overview of issues about community-National Parks-private sector and rationale for the proposed interactions/solution.

The project team thanks Norway and Denmark for their comment. Similar to the observation and response above, much of the needed detail was absent from the PIF due to inability to travel to the field during the pandemic. Landscape maps and descriptions have been included in section 1b of the CER. Rationale and targeting has been included in sections 1b and 2 of the IFAD CER. The design report provides a better overview on how a multiple partners will work together through a landscape approach to sustainable peatlands management in the project sites in West Kalimantan.

The proposal does not list UUCK as a risk, neither deforestation potential - particularly in light of the Oil palm moratorium which will end in 3 months time (18 September 2021).

The project team thanks Norway and Denmark for their comment. UUCK (Act Number 11 of 2020 on Job Creation) has been referenced in the risk table as Risk 5 under environmental issues (Table 7 in GEF CER and Table 9 in IFAD?s Project Design Report

Adding RPPEG coordination layer at sub-national level could complicate bureaucracy and complexity. Would merging it with regional Peat/mangrove Restoration (TRGDM) be an option?

The project team thanks Norway and Denmark for their comment. The option to integrate RPPEG coordination at Province level with TRGDM has been referenced in the description of activities under Output 1.3.

On Knowledge Management and Monitoring, the project should make use of already available peat/water table/forest fire monitoring systems, and knowledge-based channels.

The project team thanks Norway and Denmark for their comment. The project will utilize and build upon existing systems and KM channels such as SiPPEG

Germany.

Germany approves the following PIF in the work program but asks that the following comments are taken into account:

The project team thanks Germany for its support.

Germany welcomes the proposal, which aims to support conservation of peatland and forest landscapes as well as improving income and food security for communities in West Kalimantan, Indonesia, through addressing the causes of habitat degradation and biodiversity loss.

Suggestions for improvements to be made during the drafting of the final project proposal:

One relevant issue on peatland restoration in Indonesia is the absence of guideline/ policy/ institutional arrangements of peatland management and restoration in protected areas. Germany would recommend to better address this challenge in component 1 of the project approach and build on examples ready for scaling up (e.g. projects by Indonesia?s peatland restoration agency BRGM).

A guideline and enhanced institutional arrangement for peatland management and restoration in protected areas is one of the anticipated results from Output 1.2 drawing on activities in the protected areas under output 2.1 and 2.2.

In component 1, the project seeks to mainstream biodiversity through the Provincial Plan for Protection and Management of Peatland Ecosystems (RPPEG). Germany recognizes the need to enhance the plan, however, suggests that improving the plan should not be done in partisan issues (now biodiversity, next climate, etc.) but in a more holistic approach.

Support will be provided through Output 1.3 for strengthening the RPPEG development and implementation in West Kalimantan. This will be done in a holistic manner. However, given that the project has a focus on biodiversity ? specific experiences and lessons learned related to Biodiversity are likely to be obtained through component 2 that can further enrich the implementation of the RPPEG at province and district levels

Germany welcomes the community-based approach, whose platform is available through Social Forestry. However, neither social forestry is sufficiently addressed in the proposal, nor are the Forest Management Units (FMUs) which are responsible for social forestry activities and for managing any types of forests. To allow sustainability and institutionalization of the project result at local level, Germany suggests to better reflect the role of the FMUs within the project approach. Furthermore, to

promote their strengthening, and to point out the potential of social forestry implementation. These measures could be included under component 2.

Specific reference to FMUs and Social forestry activities in the two targeted landscapes Have been included under component 2. In addition work will be undertaken under Output 1.2 to strengthen the national institutions for forest management and social forestry in relation to peatland as part of the work to implement the national RPPEG.

The Indonesian government is promoting Desa Mandiri Peduli Gambut (DMPG), a concept of integrative development for villages with peatland. Germany suggests that the project also supports the further development of the foundations of DMPG to promote integrative development in villages with peatland, under component 2.

The project will promote the concept of Desa Mandiri Peduli Gambut (DMPG) under component 2 (specific activities under description of Output 2.1 and 2.2) and included as a specific activity in Component 3 (under output 3.2).

Germany would like to encourage IFAD to explore collaboration opportunities during the design phase with the GCF Project ?Land-based mitigation and adaptation through a Jurisdictional Approach in West Kalimantan?, currently under development by GIZ (Accredited Entity) together with local and national institutions.

The project team fully agrees with and appreciates the recommendation and initial consultations with GIZ have been undertaken during the design mission and further feedback has been requested from GIZ on linkage and co-finance options. The potential linkages will be further sought during]late design and start-up.]

Canada Comments.

The principle of this project makes sense from a biodiversity perspective with its focus on peatlands which are important for both biodiversity and climate change mitigation. That being said, the project references ?mainstreaming biodiversity considerations into planning? and ?improving the effectiveness of Protected Areas?, but the project description seems to be vague as to what this means. First, there is no mention of new PAs / OECMs in the project which is surprising given that Indonesia still has only 12% of its terrestrial area conserved and Aichi Target 11 is 17% (with higher targets coming for the post-2020 framework). Some of the richest and most important biodiversity in the world is in Indonesia so this seems a lost opportunity in focusing solely on improving existing areas. Also, it?s not clear how the core indicators will be assessed for ?mainstreaming biodiversity? and ?PA effectiveness (e.g. indicator 1 is ?terrestrial PAs created or under improved management for conservation and sustainable use?, but the only measurement of this seems to be hectares. What baseline / benchmark will be used to evaluate success?). Perhaps this information exists but it is not clear.

The project team agrees with the need to create additional protected areas in the country to meet CBD/Aichi targets. The project will support the development and recognition of the Peatland Protection Zones (PPZ) designated under the national Regulations for Protection and Management of Peatland Ecosystems development as being an ?Other Effective Area-Based Conservation Measure (OECM)? in line with guidance from CBD Decision 14/8. PPZ cover approximately 12 million ha in Indonesia and so could potentially contribute to meeting the Aichi Target as well as targets under the Global Biodiversity Framework. However, the requirements and constraints for effective management of these areas will need to be studied as part of the project implementation This will be incorporated In component 1 and tested in component 2. In addition, CoPLI is addressing the problem of habitat fragmentation through supporting a landscape approach to biodiversity conservation (e.g., through promoting a more integrated approach among partners from the private sector, NGO and national park

management in GPNP/DSNP; (see Outputs 2.1 and 2.2). Mainstreaming biodiversity and PA effectiveness. Project Core Indicators and their measurements are determined by GEF. In the case of terrestrial protected areas these are either newly created areas or areas brought under improved management measured in number of hectares. In the case of existing areas will receive support directed at improving management effectiveness as measured with the GEF Monitoring & Evaluation Tracking Tool METT). See Annex 6 in IFAD?s Project Design Report.

The conversion of peatland through burning is a serious issue, including from a health perspective. Recent efforts to increase sustainable management and restoration have made some headway, but conservation efforts should also be improved. Working to build both government and local capacity in peatland conservation and sustainable use makes sense. Engaging private industry is also imperative. The project seeks to do that. The project is using a landscape approach which considers different land uses as well as economic and biodiversity considerations alongside gender, which Canada supports.

The project team thanks Canada for its support.

The GEF7 Project will link to other initiatives, including the Integrated Village Economic Transformation Project (Transformasi Ekonomi Kampung Terpadu/TEKAD) to be enhanced by an IFAD loan and grant (US$113 Million), with other contributions that amount to a total of US$ 700 million over a six-year implementation period (2021-2027) ? thereby expanding the project impact.

The project team thanks Canada for its support (see Output 2.3 and Annex 13 in IFAD?s Project Design Report for more detail on collaborating with TEKAD to achieve scaling up of experiences and lessons learned from West Kalimantan to Eastern Indonesia).

Canada believes that a close eye should be kept on the risks associated with the project. In particular, weak enforcement and political will which are currently categorized as ?medium? level risks. Based on previous projects in natural resource management in Indonesia, these risks may be higher.

IFAD and the project team appreciate the comment and share the concern. Nevertheless one of the many benefits accruing with the same in institutional partner (MoEF) and the same sector (sustainable peatlands management) has been to build a relationship of trust and transparency that supports efficient project implementation and reduces the risk of weak enforcement and lack of political will. The risk framework has been adjusted accordingly and mitigation measures specified. The IFAD project team believe that this risk is manageable (see risk analysis table 9 in Section 5 in the CER and IFAD?s Project Design Report).

There are also multiple projects ongoing or planned in proximity or overlapping with the project area. Careful consideration must be given to ensuring complementarity and not duplication of effort*).*

The project team agrees with the observation that there exist a number of existing and proposed new activities in the project areas relevant to CoPLI?s stated objective. To that end, during project design considerable effort has been made to identify these activities and to the extent possible reach out to in many cases potential new partners needed to support a credible landscape approach. The results of this effort can be found in Table 3 (Other On-Going and proposed Activities in the Project Area) and in IFAD?s Project Design Report. The project design team has carefully considered the related projects in the targeted areas and made adjustments to avoid overlap or duplication as well as synergy. Some of the planned projects have been agreed as co-financing for CoPLI. In some cases, the needed institutional arrangements have already been agreed to while in other cases they may come early in project implementation.

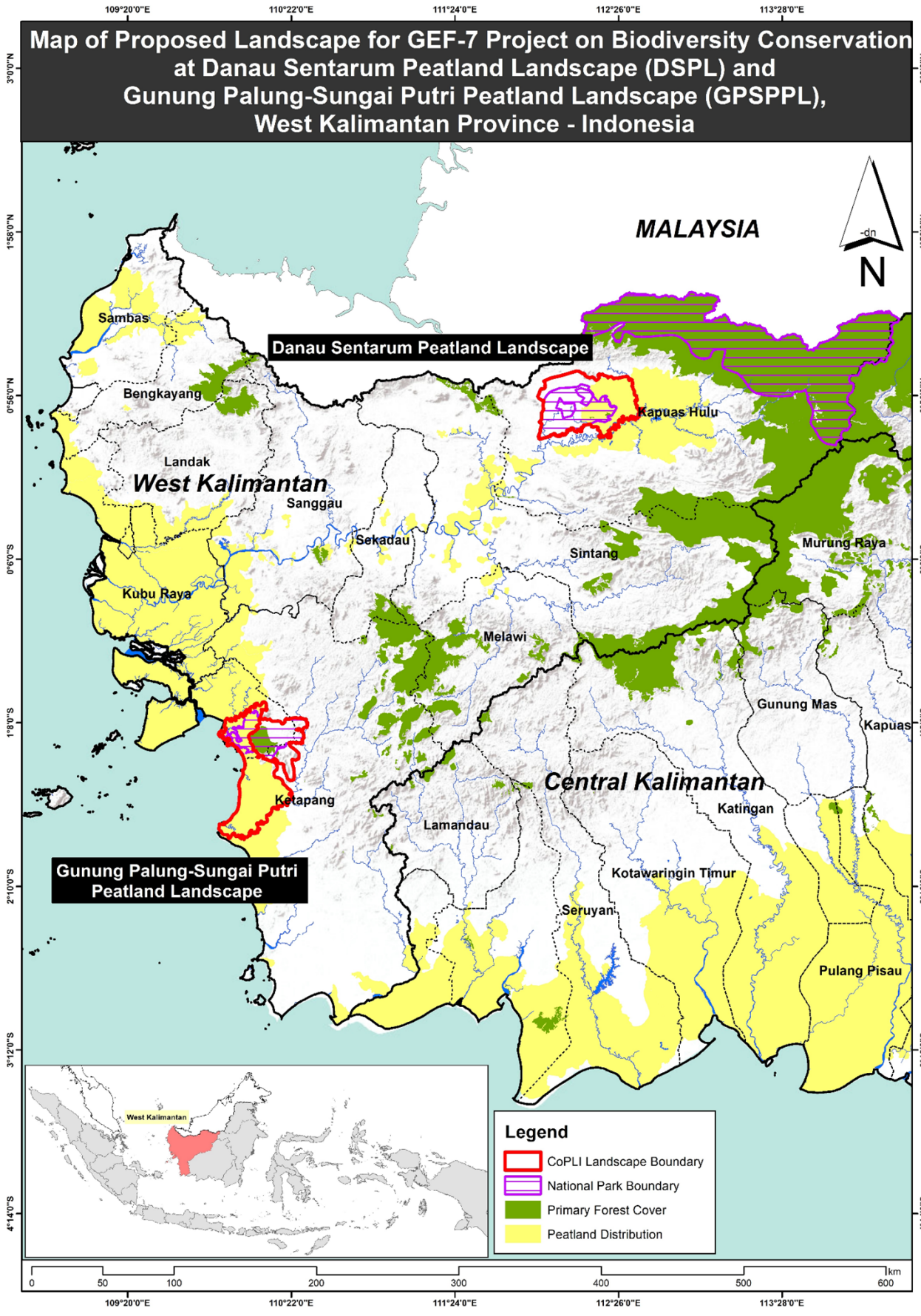
ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: US$ 150,000			
Project Preparation Activities Implemented	***GETF Amount ($)***		
	Budgeted Amount	***Amount Spent Todate***	***Amount Committed***
PPG Budget	150,000		
1. Consultancy Contract		143,551	
2. Travel & field workshop		6,449	
Total	150,000	150,000	0

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

The Project will work at the national and sub-national levels in Indonesia. In the latter, the potential identified project areas will encompass peatland biodiversity ?hotspots? inside two peatland landscapes in West Kalimantan Province, as well as potential scaling up to other districts in Indonesia via the complementary TEKAD project and other relevant projects. Specifically, site level actions are expected to take place mainly in: (i) the Gunung Palung Sungai Putri Peatland Landscape (GPSPPL) in the North Kayong and Ketapang Districts located coordinate in 109? 50? - 110? 23? East and 1? 02? - 1? 30? South, and (ii) Danau Sentarum Peatland Landscape (DSPL) in Kapuas Hulu District is located between 111? 54? - 112? 35? East and 0? 40? - 1? 40? South. The respective geolocation ID numbers are (i) Gunung Palung NP is 20378 and the landscape is located 01? 03?- 01 ?22? South & 109? 54? ? 110? 28? East, (ii) Danau Sentarum NP is 317259 and the landscape is located 0? 39' 20? - 1? 5' 20? North & 111 ? 55' 10? - 112 ? 36' 20? East 1633024, S 1?13?00? E 110?08?00?, and (ii) 11184796, N 0?51' 45"E 112?11'13" (source: www.protectedplanet.net). See Figures 1 ? 3, below.


Map of Proposed Landscape for GEF-7 Project on Biodiversity Conservation
at Danau Sentarum Peatland Landscape (DSPL) and
Gunung Palung-Sungai Putri Peatland Landscape (GPSPPL),
West Kalimantan Province - Indonesia
MALAYSIA
N
Danau Sentarum Peatland Landscape
Gunung Palung-Sungai Putri
Peatland Landscape
West Kalimantan
Central Kalimantan
Sambas
Bengkayang
Landak
Sanggau
Sekadau
Kubu Raya
Ketapang
Kapuas Hulu
Sintang
Melawi
Murung Raya
Gunung Mas
Kapuas
Katingan
Lamandau
Kotawaringin Timur
Seruyan
Pulang Pisau
109°20'0"E
110°22'0"E
111°24'0"E
112°26'0"E
113°28'0"E
3°0'0"N
1°58'0"N
0°56'0"N
0°6'0"S
1°8'0"S
2°10'0"S
3°12'0"S
4°14'0"S
West Kalimantan
Legend
CoPLI Landscape Boundary
National Park Boundary
Primary Forest Cover
Peatland Distribution
0
50
100
200
300
400
500
600
km

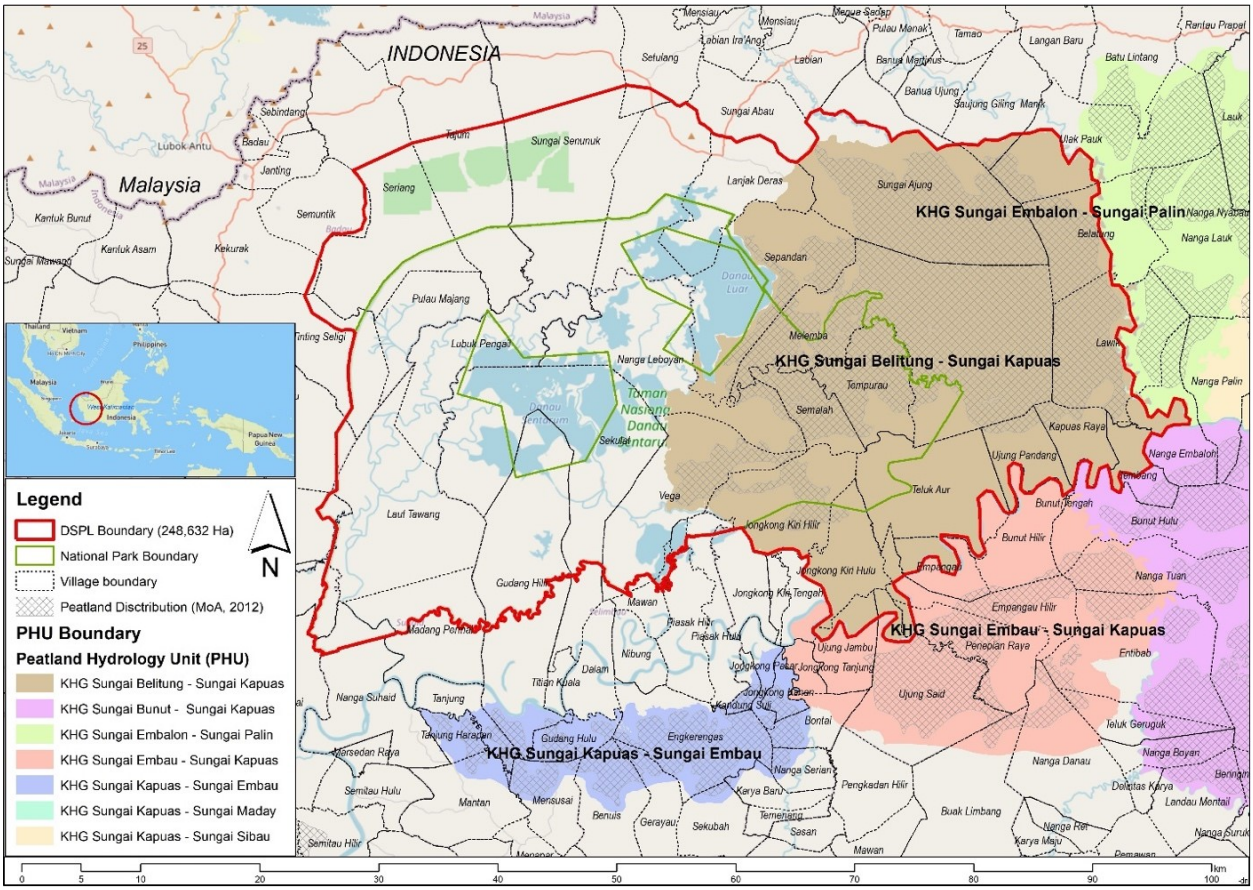


Figure 2: Map of Danau Sentarum Peatlands Landscape (DSPL). Source: Directorate General for Pollution and Environment Degradation Control-MOEF, 2022.

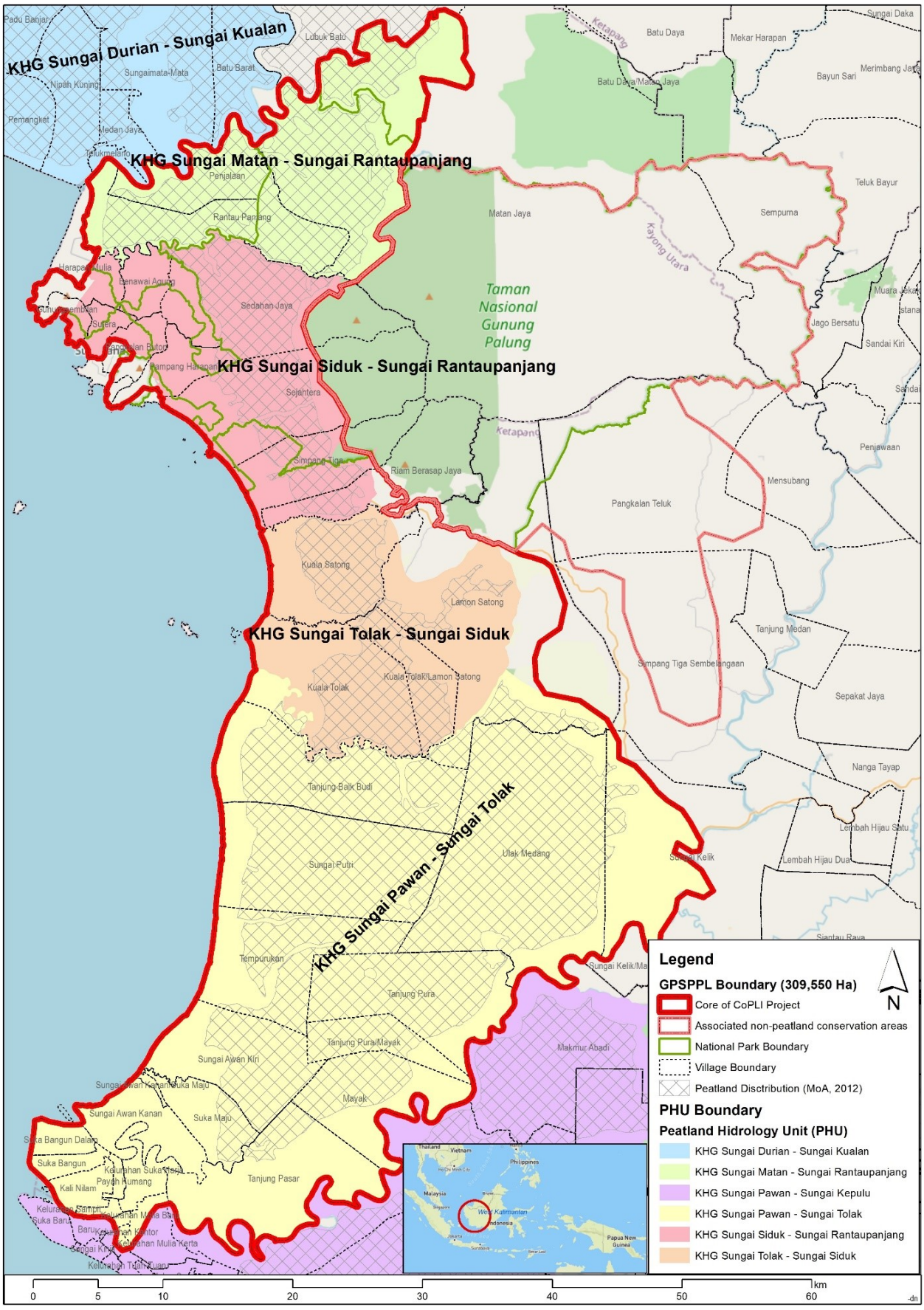

KHG Sungai Durian - Sungai Kualan
KHG Sungai Matan - Sungai Rantaupanjang
KHG Sungai Siduk - Sungai Rantaupanjang
KHG Sungai Tolak - Sungai Siduk
KHG Sungai Pawan - Sungai Tolak
Taman Nasional Gunung Palung
Padu Banjar
Lubuk Batu
Sungaimata-Mata
Batu Barat
Nipah Kuning
Pemangkat
Medan Jaya
Telukmelano
Penjalaan
Rantau Panjang
Harapan Mulia
Tanawai Agung
Sedahan Jaya
Suera
Pampang Harapan
Sejahtera
Simpang Tiga
Riam Berasap Jaya
Kuala Satong
Lamon Satong
Kuala Tolak
Kuala Tolak/Lamon Satong
Tanjung Baik Budi
Sungai Putri
Tempurukan
Tanjung Pura
Tanjung Pura/Mayak
Sungai Awan Kiri
Sungai Awan Kanan/Suka Maju
Mayak
Sungai Awan Kanan
Suka Maju
Suka Bangun Dalam
Suka Bangun
Kelurahan Suka Maju
Payah Rumang
Kali Nilam
Tanjung Pasar
Kelurahan Sampit
Suka Baru
Kelurahan Mulia Baru
Kelurahan Kantor
Kelurahan Mulia Kerta
Sungai Kinyi
Kelurahan Tanah Kuan
Batu Daya
Mekar Harapan
Batu Daya/Matan Jaya
Bayun Sari
Merimbang Jaya
Teluk Bayur
Matan Jaya
Sempurna
Kayong Utara
Muara Kekat
Istana
Jago Bersatu
Sandai Kiri
Penjawaan
Mensubang
Pangkalan Teluk
Tanjung Medan
Simpang Tiga Sembelangaan
Sepakat Jaya
Nanga Tayap
Lembah Hijau Satu
Lembah Hijau Dua
Ulak Medang
Sungai Kelik
Makmur Abadi
Legend
GPSPPL Boundary (309,550 Ha)
Core of CoPLI Project
Associated non-peatland conservation areas
National Park Boundary
Village Boundary
Peatland Disctribution (MoA, 2012)
PHU Boundary
Peatland Hidrology Unit (PHU)
KHG Sungai Durian - Sungai Kualan
KHG Sungai Matan - Sungai Rantaupanjang
KHG Sungai Pawan - Sungai Kepulu
KHG Sungai Pawan - Sungai Tolak
KHG Sungai Siduk - Sungai Rantaupanjang
KHG Sungai Tolak - Sungai Siduk
N
0
5
10
20
30
40
50
60
km

Figure 3: Map of Gunung Palung- Sungai Putri Peatlands Landscape (GPSPPL). Source: Directorate General for Pollution and Environment Degradation Control-MOEF, 2022.

ANNEX E: Project Budget Table

Please attach a project budget table.

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).