Part I: Project Information

GEF ID
10913

Project Type
FSP

Type of Trust Fund
GET

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

Project Title
Protection of biodiversity and sustainable land-use in conservation landscapes in South Sulawesi, Gorontalo and East Nusa Tenggara

Countries
Indonesia

Agency(ies)
UNEP-

Other Executing Partner(s)
Directorate General of Nature Resources and Ecosystem Conservation (KSDAE) of the Ministry of Environment and Forestry (KLHK), Government of Indonesia; Environmental Bamboo Foundation (Co-EA)

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Sector

Taxonomy

Land Degradation, Sustainable Land Management, Focal Areas, Community-Based Natural Resource Management, Ecosystem Approach, Sustainable Forest, Restoration and Rehabilitation of Degraded Lands, Land Degradation Neutrality, Land Cover and Land cover change, Forest, Forest and Landscape Restoration, Mainstreaming, Biodiversity, Agriculture and agrobiodiversity, Forestry - Including HCVF and REDD+, Protected Areas and Landscapes, Community Based Natural Resource Mngt, Biomes, Tropical Dry Forests, Tropical Rain Forests, Species, Threatened Species, Plant Genetic Resources, Stakeholders, Private Sector, Financial intermediaries and market facilitators, Capital providers, SMEs, Individuals/Entrepreneurs, Type of Engagement, Participation, Partnership, Local Communities, Gender Equality, Access and control over natural resources, Gender results areas, Participation and leadership, Awareness Raising, Capacity Development, Access to benefits and services, Knowledge Generation and Exchange, Gender Mainstreaming, Beneficiaries, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

No Contribution 0

Biodiversity

Significant Objective 1

Land Degradation

Significant Objective 1

Submission Date

8/18/2023

Expected Implementation Start

1/1/2024

Expected Completion Date

1/1/2030

Duration

72In Months

Agency Fee($)

709,767.00

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	5,684,749.00	57,137,276.85
LD-1-3	(Forest Landscape Restoration - FLR) Maintain or improve flows of ecosystem services, including sustaining livelihoods of forest-dependent people through Forest Landscape Restoration (FLR)	GET	786,484.00	7,904,931.96
LD-1-4	LD-1-4 (Integrated Landscapes and Resilience ? INRM) Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape	GET	1,000,000.00	10,050,976.19
		Total Project Cost($)	**7,471,233.00**	**75,093,185.00**

B. Project description summary

Project Objective

To protect biodiversity and reduce land degradation in Wallacea hotspot through landscape-based conservation action, sustainable land management, and livelihood benefits linked to conservation outcomes.

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: Planning and governance for integrated landscape conservation and reduced land degradation	Technical Assistance	**Outcome 1.1** Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon. **Indicators:** *(1) Ecological habitat requirements and conservation action for (keystone) species identified* **Target:** Species conservation assessment reports for two (2) Threatened species or one (1) fauna/flora group per landscape, focused on	Output 1.1.1 Analysis of impact drivers to ecosystems, and identification of opportunities for landscape and species protection in Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), which guide ecological and spatial context of restoration and habitat protection, measures to address drivers, as well as optimized investments for resilient landscapes and communities Output 1.1.2: Five (5) spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating LDN and key habitat conservation targets, linked to government Medium-term Development Plans for	GET	1,831,501.00	18,408,372.94

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		KBA/IBA sites *(2) Conservation plans for globally threatened or endemic species guide improved area-based conservation action* **Target***: at least one (1) multi-species conservation plan in (5) landscapes, including recommended action related to FMU, SLM and social forestry*	alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3) Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit (FMU) plans and boundary decisions, and management capacity established with partners under People, Public, Private, Partnerships (PPPP) agreements (see 1.1.2)			
		Outcome 1.2 Improved landscape management with conservation	Output 1.2.1: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		outcomes through secure local governance and land tenure as a basis for enhanced agroforestry value-chains in social forestry concessions.	welfare and more sustainable and productive agroforestry value-chains (kenari, coffee, bamboo, cacao, cashew, etc.)			
		(3) Total # of social forestry concessions granted including for commodity production and access for women, integrating BD objectives. *>30% of concessions led by women* **Target:** 15 new tenures; > 100,000 ha				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 2: Implementation of the ICLP in alignment with local governance, impact financing and community-development	Technical Assistance	**Outcome 2.1**: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans **Indicators:** *(4) Area-based protection of key species habitat* **Target:** Habitat needs (e.g. feeding, resting, breeding or viable populations) for: Sulawesi Babyrusa *Babyrousa celebensis* (VU), Mountain Anoa *Bubalus*	Output 2.1.1: Other Effective Conservation Measures (OECM) and community-based Monitoring, Control and Surveillance implemented (e.g. integrated fire management, protection of wildlife habitat for breeding, feeding, resting; encroachment) Output 2.1.2: KBA/HCVF forests protected and restored (assisted natural regeneration and enrichment planting) and sustainable forest/savannah management on degraded lands for increased soil and woody vegetation health Output 2.1.3 Biodiversity is mainstreamed into 277,130 ha FMU implementation including their	GET	3,016,878.00	30,322,568.95

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		quarlesi (EN), Knobbed Hornbill *Rhyticeros cassidix* (VU), and Maleo *Macrocephalon maleo* (CR), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Flores scops-owl *Otus alfredi* (EN) and Flores Hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Oru, *Chloothamnus reholttumianus* (VU), Sumba Cockatoo *Cacatua citrinocristata* (CR), *Santalum Album* (VU), *Eucalyptus*	busines2 plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities - - - - - -			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		urophylla (EN) (5f) # of ha landscape under improved practices (CI 4) for: (i) Biodiversity - breeding, feeding or resting requirements (4.1); (ii) enabling BD through productive agroforests (4.3) and HCVF protection (4.4) **Target**: Total of at least 510,130 ha, consisting of 208,543 ha (KBA), 120,394 Production forest in or near KBA, plus 181,193 Areas for Other Land Use (APL) included in five ICLP *(6) Degraded*	- - - - - - - - - - - - <u>Output 2.2.1</u> Community-based (PPPP) Bamboo agroforestry (and other NTFP commodities) operational, conditional community-BD conservation agreements (ICLP) and investment-ready through feasible value-chains (linked to financing Comp 3)			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		high-BD forest within and adjacent to KBAs restored **Target**: 8,003 ha				
		(7) Reduction in drivers of BD loss as stated in ICLP/Species Conservation Plans **Target:** 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines				
		(8) FMU/KPH operations improved with biodiversity and SLM outcomes				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		Target: 13 KPHs totaling 277,130 ha - **<u>Outcome 2.2</u>**: Enhanced biodiverse agroforestry production on Social Forestry Concessions leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs)				
		(9) # agroforestry on social forestry concessions on APL and Production Forest: **Target:** >100,000 ha				
		(10) % of population in project				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <100,000 ha agroforests **Target:** 10% of population, and over 40% is women: Direct beneficiaries co-benefit from GEF investment: Total of 55,900, of which 22,350 are female and 33,550 are male				
			(11) Agroforest BD, SLM and GHG indexes improving at midterm and end of project **Target**: BD and SLM TBD; GHG:			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		8,733,744 MtCo2e AFOLU emissions reduced by 2043				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 3: Sustainable sources of financing for the implementation of integrated landscape conservation and management	Investment	Outcome 3.1 Technical assistance so public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD *(12) % of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration*	Output 3.1.1 Blended/impact investments mobilized through agreement with private sector, financers/banks and local producers (particularly women) to realise livelihood targets and enable biodiversity-friendly business ventures Output 3.1.2: Mainstream biodiversity and LDN lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions Output 3.1.3: Implementation of ICLP through facilitating government fiscal mechanism including ecology-based transfers in Provincial (TAPE), District (TAKE) and	GET	1,877,354.00	18,869,240.36

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		Target: 45% of investment	National (TANE) budgets			
		(13) Number of new business ventures led by women **Target**: >30%				
		(14) Activating innovative national-level fiscal incentives; based on BD conservation performance at provincial and village levels and leading to increased government budget and lending for regions based on biodiversity conservation and land restoration performance. **Target**: 2 instruments				

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
		*(15)***Target**: 50 % of funds required for restoring 8,003ha and establishing 100,000 ha agroforests coming from new public and private investments				
Component 4. Monitoring and Evaluation	Technical Assistance	Outcome 4.1: Integrated and effective monitoring and evaluation system in place	Output 4.1.1: Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1) 4.1.2 Project progress timely reported 4.1.3. Mid-term review conducted 4.1.4. Terminal Evaluation conducted	GET	373,000.00	3,749,014.12

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
				Sub Total ($)	**7,098,733.00**	**71,349,196.37**
Project Management Cost (PMC)						
				GET	372,500.00	3,743,988.63
				Sub Total($)	**372,500.00**	**3,743,988.63**
				Total Project Cost($)	**7,471,233.00**	**75,093,185.00**

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($)
Recipient Country Government	National Ministry of Environment and Forestry, Directorate General, Nature Resources and Ecosystem Conservation	In-kind	Recurrent expenditures	34,737,000.00
Recipient Country Government	Ministry of Environment and Forestry ? Directorate General of Watershed Control and Forest Rehabilitation (Ditjen PDASRH)	In-kind	Recurrent expenditures	5,801,185.00
Private Sector	Talasi	In-kind	Investment mobilized	30,000,000.00
Private Sector	Javara/Seniman Pangan	In-kind	Recurrent expenditures	150,000.00
Private Sector	Kreologi	In-kind	Investment mobilized	125,000.00
Civil Society Organization	Yayasan Bambu Linkungan Lestari (aka EBF)	Grant	Investment mobilized	2,500,000.00
Private Sector	Javara/Seniman Pangan	Other	Investment mobilized	450,000.00
Civil Society Organization	Yayasan Bambu Linkungan Lestari (aka EBF)	In-kind	Investment mobilized	1,330,000.00
			Total Co-Financing($)	**75,093,185.00**

Describe how any "Investment Mobilized" was identified

Government: The Ministry of Environment and Forestry, Nature Resources and Ecosystem Conservation (KSDAE) commits US$34,737,000 to the project through in-kind, recurrent expenditures over the seven years. Within this commitment are the following sub-commitments: The North Sulawesi Natural Resource Conservation Agency commits $4,322,100; the South Sulawesi Natural Resource Conservation Agency commits $10,866,000; the East Nusa Tenggara Resource Conservation Agency commits $10,078,000; the Directorate of Conservation Area Management commits $8,053,000, and the Directorate of Ecosystem

Management and Restoration commits $1,397,700. The Directorate General of Watershed Control and Forest Rehabilitation (Ditjen PDASRH) commits $5, 201,499, in nursery materials, extension services, forest and land restoration materials, expertise and related investments over seven years. The Ministry of Cooperatives and Small-Medium Sized Enterprises (LPDB) anticipates investment in processing facilities supporting the biodiversity-friendly business models, based on their existing grant support of US$ 696,692 for the development of a shared production facility in Labuanbajo, Flores Island, East Nusa Tenggara. The Ministry was not able to provide a co-finance letter, but discussions are on-going. Private sector and banks: The planned impact investment has been identified based on expected feasibility and partnership with business partners in the landscapes that have been identified in the PPG phase. The PPG identified an anchor private sector partner in the NTT sites?Talasi, started by the founder of Haldin ?which anticipates a $30 million co-finance investment in aligned activities that will help enable and achieve programme outcomes over the 6 years of the project in the biodiversity friendly business models. Specifically, Talasi has just invested in a $1.5 million upgrade to their cashew and nut drying facility in West Sumba that would handle the increase in nuts coming from the GEF project area in East Sumba. Thus, markets already exist for the nut projects, some product lines are already developed, and some farmer groups have been formed. Thus, the additional investment enables the GEF project to develop value chains under the umbrella of the ICLP agreements, expand the number of farmer groups, and build the capacity and access to markets as soon as the groups are formed and commitments are made to the ICLP outcomes. The investment also enables development of product tracing technologies (important to demonstrate deforestation-free and compliance with land management objectives), organic and other product certification. Talasi is also planning to establish a nut processing facility in Alor that would process vanilla, kenari and kemiri, all of which are priorities for the agroforestry systems the project will implement, and the wild tree harvesting. Talasi?s $30 million commitment represents $2 million in in-kind support, $8 million in cash investment in processing facilities, product manufacturing and other investments, plus a crucial $20 million in off-take commitment. This off-take commitment is crucial to demonstrate there is already a buyer for key products (especially the cashew and kenari products), which is a key indicator of viability of the business models, if producers can organize and meet the demand. Other agroforestry-based food and textile products will be developed by Javara/Seniman Pangan, DuAnyam/Kreologi, and other partners who will help develop the community-based processing facilities and full value-chain development and market access. Their recurrent expenditure comes in the form of in-kind technical assistance, brokering, product and market development. New investment mobilized will support product processing, packaging, storing, and market access. Their contributions to the project are as follows: a) $450,000 investment mobilized and $150,000 in-kind by Javara and; b) $125,000 in-kind by Kreologi). DuAnyam/Kreologi will also contribute to development of eco-tourism offerings. Javara/ Seniman Pangan are already participants in the shared facility in Labuanbajo, Flores, NTT, which will provide a place for bamboo and other agroforest product processing, training, packaging and readying for transport to markets. The shared facility has also already created a multi-party community-based cooperative, which has been legally established and is ready to receive funds. A commercial funding approach complements government and private sector funding strategies. The co-finance commitment from Talasi (which crucially includes an off-take agreement to purchase products from the farmers) provides incentive and confidence for Bank NTT to provide loans to farmers, and this is predicted to be in the order of $1,000,000.

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($)
UNEP	GET	Indonesia	Biodiversity	BD STAR Allocation	5,684,749	540,051	6,224,800.00
UNEP	GET	Indonesia	Land Degradation	LD STAR Allocation	1,786,484	169,716	1,956,200.00
			Total Grant Resources($)		**7,471,233.00**	**709,767.00**	**8,181,000.00**

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 ($)

200,000

PPG Agency Fee ($)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNEP	GET	Indonesia	Biodiversity	BD STAR Allocation	160,000	15,200	**175,200.00**
UNEP	GET	Indonesia	Land Degradation	LD STAR Allocation	40,000	3,800	**43,800.00**
				Total Project Costs($)	**200,000.00**	**19,000.00**	**219,000.00**

Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8661.00	8003.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural lands under restoration

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

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8,661.00	8,003.00		

Indicator 3.3 Area of natural grass and woodland under restoration

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

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

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

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)
514848.00	510130.00	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)
414,848.00	208,543.00		

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

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)
100,000.00	301,587.00		

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

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)	9931819	8733744	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)	9,931,819	8,733,744		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting	2023	2023		
Duration of accounting	20	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	20,349	22,350		
Male	30,331	33,550		
Total	50680	55900	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

CI 3 Forest restoration The project aims to restore a total of 8,003 hectares of fallow land in the High-Biodiversity (High-BD) habitats within the East Nusa Tenggara Province Tropical Dry Forest. As part of this strategy, fire management will be implemented across the landscape on Sumba Island. CI 4 Improved landscape management: ? The total area of the 5 targeted landscapes, spanning across 3 provinces (NTT, South Sulawesi, and Gorontalo), is 510,130 hectares. These consist of 208,543 ha (KBA), 120,394 Production Forest in or near KBA, plus 181,193 ha under Areas for Other Land Use (APL) ? The project's interventions are focused on the following areas: (a) Reducing the 20-year historic deforestation rates across the entire landscape area. (b) Improving the management of the landscapes, including enhancing production, landscape connectivity, and the protection of 100,000 hectares of bamboo agroforestry systems in High-Biodiversity (High-BD) habitats CI 6 Carbon benefits from avoided deforestation & carbon sequestration ? Avoided deforestation benefits: As reference on historic deforestation, we have used WRI Global Forest data with an average rate of 10% of Primary Forest loss for the period 2002 to 2021. Our project would result in reduction of 20% in the alternative scenario, reducing the average deforestation rate to 8% over the next 20 years (6 project years plus 14 years post-project). ? Based on this, it is assumed that (a) the project would avoid deforestation of 2,347 ha Tropical Rainforest, plus 7,982 ha Tropical Dry Forests in the observed 20-year deforestation rate.. ? Rainforests: About 50% of the above avoided deforestation is due to conversion of Tropical Rain Forest to Agroforestry systems (multi-strata) and the remainder 50% is due to conversion to Annual Cropping. ? Dry Forests: About 50% of the above avoided deforestation is due to conversion of Dry Forests to Agroforestry systems with the remainder 50% due to conversion of dry forests to Annual Cropping. In both forests, fire for land clearing plays a role. ? Carbon sequestration through improved landscape management: GHG calculations have been made using the FAO EX-ACT Tool. It is assumed (a) that the project would improve protection, landscape connectivity, and agroforestry production improvements/habitat quality over 100,000 ha (30% in Rainforest habitat and 70% in Dry Forest habitat); as well as (b) have carbon sequestration benefits on 1/5 of the targeted landscape area (469,541 ha in alternative scenario with reduced deforestation - consisting improvements in 16,629 ha Rainforest and 57,279 ha Dry Forests habitats, respectively. The project would enable natural forest restoration with a 20% increase in biomass from 40% to 60%over 20 years; whilst incorporating reduction in fire intensity and area of fire impact. ? Carbon sequestration is also generated through reforestation of former Dry Forest on fallow land on a total of 8,001 ha. ? Please see details of GHG calculations in the appended EX-ACT Excel sheets. CI 11 number of beneficiaries: There are a total of 55,900 beneficiaries, comprising 22,350 females and 33,550 males, all hailing from impoverished rural areas. ? Based on our evaluations of the revenue potential for farmers in the project areas, as well as an analysis of the annual income required to lift

all impoverished individuals in the target area above the poverty line (assuming a perfect distribution of new income), we have conservatively estimated the ability to surpass 10% of the population, of which 40% are women.

Part II. Project Justification

1a. Project Description

Whilst there have been no significant changes since the PIF stage to the global environmental and/or adaptation problems, root causes (drivers) and barriers (Section 1.1 in PIF), an in-depth analysis was undertaken during the PPG phase. This analysis confirmed that the root causes (drivers) and barriers outlined within the PIF remain the most relevant to achieve the project outcomes. This is elaborated in the paragraphs below.

? The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Background, global significance and context

This project focusses on 5 key high-biodiversity landscapes lacking adequate protection in the Indonesian range of the Wallacea hotspot, west of the Weber Line, which is the meeting point between the Asian and Australian fauna, and is one of the world's largest centers of endemism.[1]1 This area includes Sulawesi and related islands and the Lower Sunda islands from Lombok to Timor. The Wallace Line marks the western limits of the distribution of marsupial mammals, cockatoos, and several other bird families. The islands support highly diverse biological communities with many unique fauna and flora species - with more than half of the mammals, 40% of the birds and 65% of the amphibians found in Wallacea not occurring outside the hotspot. Many of these species are endemic not only to the hotspot but also to single islands or mountains within it. Such species are highly vulnerable to habitat loss, hunting, collection, and other pressures. As a result, Wallacea has 308 terrestrial and freshwater species classified by the International Union for Conservation of Nature as globally threatened, and many more species for which data is inadequate to allow full assessment of their status.[2]2.

Globally threatened species in the project area are outlined in the table below. Sixty-four species of the terrestrial mammals in this region are globally threatened. There are 40 threatened mammals in Sulawesi, and 15 in the Lesser Sundas.***[3]3*** Forty percent of Wallacea?s birds are endemic which confirms Indonesia being the worlds fourth in bird endemicity level[4]4. Sixty-one (61) birds of this hotspot are globally threatened, including 49 endemics. The critically endangered yellow- crested cockatoo (*Cacatua sulphurea*) is present in 4 of the 5 sites. Flores Island is well-known for Komodo Dragon (*Varanus komodoensis*), occurring on the Lesser Sundas islands of Komodo, Rinca and Flores. However, this project excludes all areas of Komodo, as they are the focus of an already approved UNDP/GEF project which focuses exclusively on habitat protection for Komodo Dragon.[5]5 The

proposed project sites contain 4 of the 25 nationally recognized critical endangered animal species in Indonesia.[6]6

Table 3: Global significance of each project site

The project sites contain 4 of the 25 nationally recognized critically endangered animal species in Indonesia: 1) Maleo *Macrocephalon maleo* (Popayato-Paguat, Gorontalo, Sulawesi), 2) Babirusas *Babyrousa babirussa Linnaeus* (Popayato-Paguat, Gorontalo), 3) Anoa dwarf buffalo *Bubalus quarlesi (*Popayato-Paguat, Gorontalo and Lompobattang, South Sulawesi), 4) Sumba hornbill *Rhyticeros everetti* (Sumba, East Nusa Tenggara)		
Site/Province	**Critically, endangered and vulnerable species**	**Other species of concern**

Popayato-Paguat, Gorontalo	**<u>Endangered fauna</u>**: Maleo *Macrocephalon maleo* (Critically Endangered CR), Yellow-crested Cockatoo *Cacatua sulphurea (CR),* Mountain Anoa *Bubalus quarlesi* (Endangered-EN), Anoa *Bubalus depressicornis* (EN), Sulawesi Babirusa *Babyrousa celebensis* (VU), Heck's Macaque *Macaca heckii* (VU), Rusa deer *Rusa timorensis* (VU), Sulawesi Small Cuscus *Strigocuscus celebensis* (VU), Bear Cuscus *Ailurops ursinus* (VU), Sulawesi Civet *Macrogalidia musschenbroekii* (VU), *Cacatua alba (*EN*),* Rhyticerox *cassidix (*Vulnerable - VU*),* Southeast Asian Box Turtle *Cuora amboinensis* (EN), Northeastern Peninsula Bunomys *Bunomys fratrorum* (VU), Blue-faced Rail *Gymnocrex rosenbergii* (VU) and Snoring rail *Aramidopsis plateni* (VU) *Tarsius supriatnai* (VU), Sulawesi Hornbill *Rhabdotorrhinus exarhatus (*VU*)* Knobbed Hornbill *Rhyticeros cassidix* (VU), Chinese Egret *Egretta eulophotes* (VU), Pale-bellied Myna *Acridotheres cinereus* (VU), Heinrich's Wart Frog *Limnonectes heinrichi*(VU), Loka Flying Frog *Rhacophorus monticola* (VU), King Cobra *Ophiophagus Hannah* (VU), Southeast Asian Box Turtle *Cuora amboinensis* (VU); **<u>Endangered flora</u>**: *Petrocarpus indicus* (EN), *Aquilaria filaria* (VU), *Agathis dammara* (VU), *Diospyros minahassae* (VU), *Syzygium s*p (VU), *Goniothalamus majestatis* (VU);	**<u>Other fauna of note</u>**: Yellowish-breasted Racquet-tail *Prioniturus flavicans (NT),* Jatna?s tarsier *Tarsius supriatnai*, Tarsius *spectrum*, Sulawesi Cuscus *Strigocuscus celebensis*, Rusa *Cervus timorensis*, Squirrel *Prociurillus murinus*, Musang *Viverra tangalunga* Lumbricus rubellus, and at least 49 bird species; A series of two major studies in the project area identified a total number of 349 species plant species from 76 families; the most common species observed were Euphorbiaceae (37 species), Meliaceae (17 species), Rubiaceae (16 species), Lauraceae (15 species), Moraceae (15 species), Annonacaee (12 species) and Myristicaceae (12 species). **<u>Other flora of note</u>**: *Gonystylus macrophyllus, Pigafetta vilaris*, Giant Tree Rao *Dracontomelum Dao*, Nyatoh (Palaquium spp), Rainbow gum *Eucalyptus deglupta*, Kapuraca *Callophyllum sp*, Kayu Aras *Duabanga sp* , Moluccan ironwood *Instia bijuga*, Kalau black ebony *Planchonia valida*, fukugi tree *Garcinia sp*, Namu Palaquium sp, Queen Sago *Cycas rumphii* (NT), Fishtail Palm *Mythic Caryota*, *Livistonia rotundifolia,*endemics *Elmerillia ovalis* and *Diospyros hebecarpa*, *Terminalia celebica,* Cyrtandra species such as *Cyrtandra boliohutensis* proposed for IUCN red list, *Palaquium obovatum, Grammatophyllum speciosum,* Weeping fig *Ficus benjamina,* Champak *Magnolia champaca,* White Gutta *Palaquium obovatum,* Horsetail tree *Casuarina equisetifoli),* Bayur *Pterospermum javanicum,* New Guinea teak *Vitex cofassus,* Saurauia *Membrek saurauia,* Ghaf *Prosopis cineraria,* Diospyros *confertiflora,* Cedar *Cedrus libani,* Nibung Palm*. Oncosperma tigillarium,* Calophyllum *inophyllum,* Fairy washboard *Ficus variegata,* Golden shower tree *Cassia fistula, Arenga pinnata, Pterospermum celebicum, Duabanga moluccana.* **<u>Endemic bamboo</u>**: *Dinochloa truncate*, *Dinochloa wartabonei*; *Schizostachyum brachycladum*, *Dendrocalamus asper*

Lompobattang, South Sulawesi	**<u>Endangered fauna</u>**: Just verified through camera trips is Mountain Anoa *Bubalus quarlesi* (EN)***[7]7****,* also Lampobatang Bunomys *Bunomys coelestis* (CR), Makassar Tarsier *Tarsius fuscus* (VU), Moor Macaque *Macaca maura* (EN), *Tarsius tarsier* (VU), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Southern Hylocitrea *Hylocitrea bonthaina* (EN), Sulawesi Hornbill *Rhabdotorrhinus exarhatus* (VU), Knobbed Hornbill *Rhyticerios cassidix* (VU)*;* Sulawesi Wart Frog *Limnonectes microtympanum* (EN), Bonthain Tiger *Parantica sulewattan* (EN), *Procordulia lompobatang* (EN), Zimmer's Cross Frog *Oreophryne zimmeri* (EN), Sulawesi Civet *Macrogalidia musschenbroekii* (VU). **<u>Endangered flora</u>**: Edelweiss *Anaphalis javanica*, *Etlingera chlorodonta* (CR), *Etlingera doliiformis* (CR), East Himalayan Yew (*Taxus wallichiana*) (EN), *Etlingera cylindrica* (EN), *Etlingera eburnean* (EN), *Etlingera mucronate* (EN), *Etlingera orophila* (EN), *Etlingera spinulosa* (EN);	**<u>Other fauna of note</u>**: Djikoro Wart Frog *Limnonectes arathooni* (VU), Katak-mini *Oreophryne variabilis* (VU), *Macromia irina* (VU), Katak-parasut gunung *Rhacophorus monticola* (VU), Makassar tarsier *Tarsius fuscus* (VU), Lompobattang Fruit-dove *Ramphiculus meridionalis* (VU), Burmese Python *Python bivittatus* (VU), King Cobra *Ophiophagus Hannah* (VU), Bear Cuscus *Ailurops ursinus* (VU); **<u>Other flora of note</u>**: *Pinus merkusii*, *Eucalyptus urophylla* (EN), and *Acacia mearnsii*, *Diplycosia celebensis, Diplycosia crassiramea, Diplycosia gracilipes, Gaultheria celebica, Gaultheria viridiflora, Rhododendron psilanthum, Rhododendron scarlatinum, Rhododendron nanophyton*; *Weinmannia spiraeoides* **<u>Endemic bamboo</u>**: *Gigantochloa atter*, *Bambusa vulgaris.*

Todo-Repok/ Ruteng, NTT	**<u>Endangered fauna</u>***: birds:* Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Flores Hawk-Eagle *Nisaetus floris* (CR)(Todo-Repok contains two of their eight habitat sites), Flores Celepuk *Otus alfredi* (EN), Flores Lory / Serendit *Loriculus flosculus* (EN), Flores Crow *Corvus florensis* (EN), Flores Scops-owl *Otus alfredi* (EN), Tenggara Hill-Myna *Gracula venerata* (EN), Flores Green-pigeon *Treron floris* (VU), Flores Lorikeet *Trichoglossus weberii*, Opior Flores *Lophozosterops superciliaris*, Thick-billed Opior *Heleia crassirostris* and Dwarf Sepah *Pericrocotus lansbergei*; *Mammals:* Flores Shrew *Suncus mertensi* (EN), Paula?s Long-nosed rat *Paulamys naso* (EN), Hainald?s Flores Island Rat *Rattus hainaldi* (EN), long-tailed monkeys *Macaca fascicularis* (EN), Flores Giant Rat *Papagomys armandvillei* (NT) **<u>Endangered flora</u>**: *Clethra javanica* (VU), *Guioa asquamosa* (VU), *Mangifera sumbawaensis* (VU).	Flores bats *Cynopterus nusatenggara*, porcupines *Hystrix brachyura,* wild boar *Sus sucrofa vitatus* and weasels *Paradoxurus hermaphroditus.* ***<u>Endemic bamboo</u>****: Chloothamnus reholtummianus (VU), Dinochloa nigroviolacea, Nastus reholttumianus, Dinochloa kostermansiana.*

Alor, NTT	**Endangered fauna**: birds - Yellow-crested Cockatoo *Cacatua Sulphurea* (CR), Flores hawk-eagle *Nisaetus floris* (CR), Tenggara Hill-Myna *Gracula venerata* (EN), Green-pigeon *Treron floris* (VU), Flores Wooly Bat *Kerivoula flora* (VU), Komodomys rintjanus (VU); mammals - *Rusa timorensis* (VU), Sunda Flying Fox *Acerodon mackloti* (VU), Long-Tailed Macaque *Macaca fascicularis* (VU). **Endangered flora**: Ampupu, *Eucalyptus urophylla* (EN).	**Other fauna of note**: birds - Chestnut-backed Thrush *Geokichla dohertyi,* Yellow-spectacled White-eye *Heleia wallacei*, Olive-headed Lorikeet *Trichoglossus euteles* , Flame-breasted Sunbird *Cinnyris solaris*, Alor Boobook *Ninox plesseni*, Black-fronted Flowerpecker *Dicaeum igniferum,* Blue-banded kingfisher *Alcedo euryzona* , White-rumped kingfisher *Caridonax fulgidus* , Lesser coucal *Centropus bengalensisi* , Imperial pigeon *Ducula sp* , Spotted dove *Streptopelia chinensis* , Greater Wallacean drongo *Dicrurus densus*, Five-colored munia *Lonchura quinticolor* , Zebra finch *Taeniopygia guttatai* , black-naped blue flycatcher *Hypothymis azurea* , Tersiphone paradise *Tersiphone paradise*, Orange-footed scrubfowl *Megapodius reintwardtii* , Timor friarbird *Philemon inornatus* , Bare-throated Whistler *flores Pachycephala Nudigula*, Australian golden whistler *Pachycephala pectoralis*, Brown hawk-owl *Ninox scutulata* , Scops owl *Otus sp*, Nusa Tenggara Komodomys *rintjanus*, Alor myzomela *(Myzomela prawiradilagae),* Alor Cuckooshrike (*Coracina alfrediana*); mammals - Banded pig *Sus vitatus*, Asian palm civet *Paradoxurus hermaproditus*, Landak *Hystrik sp.,* Sunda Fruit Bat (*Acerodon mackloti)*; *repitles* - Timor monitor lizard *Varanus timorensis*, **Other flora of note**: Indian Almond *Terminalia catappa* , *Canarium commune*, Malay Lac Tree *Schleichera oleosa*, *Acacia sp*, *Mangifera timorensis* Aimita *Polyalthia oblonga*, Bale *Disoxylum microcarpus*, Balebura *Turpinia montana* , Blamita *Prunus grisea*, Bla?at *Meliosma sp.*, Blewut *Scindapsus sp.*, Een *Lepisanthes amoena*, Hen *Toona sureni*, Kurok *Disoxylum brevipaniculatum*, Lamita *Polyalthia pisocarpa*, Lali *Celtis phillippinensis*, Mara *Pometia pinnata*, Mara Bura *Pometia pinnata*, Sunga *Rauvolfia javanica,* Betel Plant *Piper sp*, Taur *Pisonia cauliflora*, Ta?u *Anodendron paniculatum*, Tolen *Disoxylum alliaceum*; **Endemic bamboo**: *Fimbribambusa rifaiana* (but rarely found).

East Sumba, NTT	**Endangered fauna**: *birds:* Citron-crested cockatoo *Cacatua citrinocristata* (CR), Sumba Hornbill *Rhyticeros everetti* (EN), Murphy?s Crow butterly *Euploea caespes* (EN), Red-naped Fruit-dove Ptilinopus *dohertyi* (VU), Sumba Green-pigeon *Treron teysmannii* (NT), Nusa Tenggara Paradise-flycatcher *Terpsiphone floris*, *Ideopsis oberthurii* (VU); **Endangered flora**: Sandalwood, *Santalum album* (VU), *Chloothamnus reholtummianus* bamboo (VU).	**Other fauna of note**: Sumba Brown Flycatcher *Muscicapa segregata* (NT), Sumba buttonquail *Turnix everetti*, Sumba Green-pigeon *Treron teysmannii*, Red-naped Fruit-dove *Ptilinopus dohertyi* , Apricot-breasted Sunbird *Nektarina buettikoferi*, Sumba Myzomela *Myzomela dammermani*, Sumba Flycatcher *Ficedula harterti*, Sumba boobook *Ninox Rudolffi*, Yellow-spectacled White-eye *Heleia wallacei*, Sumba Cicadabird *Edolisoma dohertyi*, **Other flora of note**: Hog plum *Spondias pinata Merr.*, *Alstonia scholaris*, *Canarium oleosum*, *Cinnamomum zeylanicum*, *Myristica littoralis*, *Toona sureni*, *Sterculia foetida*, *Schleichera oleosa*, and *Palaquium obovatum*, Malay Lac Tree *Schleihesa oleosa*, Ironwood *Eugenis sp*, manera *Aglaia eusideroxylon*, mayela *Artocarpus glaucus*, White Cheesewood *Alstonis scholaris*, Hard milkwood *Alstonis spectabilis*, Khirni *Manilkara kauki*, Kaduru Bara *Palaquium obtusifolium Burck.*, *Palaquium obovatum Myristica littoralis*, *Calophyllum soulattri*, *Tarenna incerta*, *Aglaia leucophylla*; **Endemic bamboo**: *Schizostachyum purpureum, Dinochloa kostermansiana, Chloothamnus reholtummianus* bamboo (VU).

The Wallacea region is a hotspot[8]8 of biodiversity and overall still has about 45% forest cover, however, the percentage drops to only 15%, or about 50,774 km2 when only intact forest in a pristine condition is considered.[9]9 Forest ecosystems that underpin the habitat requirements of these species include species of global significance, though published documentation on these forest types are not as prolific as for the dipterocarp species that occur to the west of Wallacea (e.g. on Borneo island). Sulawesi was identified as being one of the top ten places in the world most in need of floristic work,[10]10 and it remains one of the islands in the region with the lowest collecting densities.[11]11 Monsoon forest is formed in more seasonal climates than evergreen forest; it is the dominant forest type in the Lesser Sundas subregion, which is the driest and most seasonal subregion in Wallacea. Much of this forest type has been cleared for swidden agriculture and, in some cases, for mining and other development.[12]12 The very restricted areas of lowland evergreen forests remaining in the project areas, have a high level of tree diversity, yet the market interest in several rare tropical woods occurring here such as ebony (*Diospyros celebica Bakh.*), Agarwood *Aquilaria cumingiana* and *filaria* and *Gyrinops versteegii (Gilg) Domke, Pterocarpus indicus,* has led to the decline of species and their

listing as vulnerable under IUCN.[13]13 Tropical montane forest in Wallacean region is generally found above 900 meters. Tree species include conifers such as *Podocarpus*. Above about 2,400 meters, the forest is replaced by *Rhododendron* scrub and *Vaccinium* heath mixed with tree ferns and, in the highest areas, grasslands and herbs. Some 20 percent of Sulawesi is within the montane forest biome. In the drier Lesser Sundas, the *Podocarpus* montane forests give way to *Casuarina* above 2,700 meters, and in the driest regions, such as in Nusa Tenggara Timor, to black *Eucalyptus urophylla* (EN), which is cultivated widely as an industrial tree crop, but threatened in its endemic home range, such as on Flores Island and surrounding islands, wtih the species being critically endangered. The disappearance of important eucalypt populations is primarily the result of land conversion to agriculture and the establishment of more economical crops like macadamia nut trees, cacao, coffee.[14]14

There are a number of IUCN-listed trees occurring in the project area that are well-suited to integration into agroforestry systems to encourage their protection and increased abundance in their endemic ranges. *Diospyros celebica* (commonly known as black ebony or Makassar ebony) is a species of flowering tree in the family Ebenaceae that is endemic to the island of Sulawesi. The ebony tree grows in association with other forest species such as malam *D. macrophylla*, kenari *Canarium odoratum*, and others. The fleshy fruits of ebony are preferred by hornbills, monkeys, and weasels.[15]15 Agarwood *Aquilaria cumingiana* and *filaria* and *Gyrinops versteegii (Gilg) Domke,* listed in CITES Appendix II, also grow in the project area, and the former species highly prized for incense, perfume and medicinal use, notably after the heartwood is infected with a fungus, thus producing an aromatic resin. Due to the market values for agarwood (also called Eaglewood, and locally referred to as Gaharu), these trees suffer over exploitation. Indonesia is one of the largest producers globally, selling to the largest buyers Saudi Arabia, United Arab Emirates (UAE), and others. Sustainable harvesting and management of Agarwood is lacking in natural forest areas, and there is a lack of organized cultivation efforts, although *Aquilaria* and *Gyrinops* trees are grown in mixed community farms and gardens within its natural range in the project areas, though populations are decreasing and considered endangered.[16]16 CITES allows artificially propagated sources to be traded subject to permits being issued.[17]17. There is a need to safeguard natural populations of wild agarwood to protect its genetic diversity, and this is of national significance for Indonesia.[18]18 Recent rDNA sequencing of *Pterocarpus indicus* species in Indonesia indicates slightly higher genetic variation between certain populations of P. *indicus* on Flores and Timor islands, caused by different species growing on different islands.[19]19 Recent research also identifies high genetic variation of *Gyrinops versteegii* on Flores Island.[20]20

Bamboo species are an important part of the Wallacea forest ecosystem but their ecological value is underappreciated due to being considered a non-timber forest product and omitted from forest inventories. Bamboo is important to maintaining a healthy forest ecosystem, including the process of natural regeneration, as they fill in gaps in the forest canopy after e.g. wind damage or logging, yet also reduce land degradation such as gulley and soil erosion, and stabilize riverbanks and other dynamic

habitats often prone to changes in the forest systems, and as a result are key to sustainable land management, forest regeneration, maintaining biodiversity as well as ecosystem services such as water provisioning services. Planting bamboo has been shown to hold water down to 30 meters, helping the overall forest ecosystem to thrive. A review of bamboo in the Asia-Pacific region found that nearly 450 woody bamboo species may be of conservation concern, but data on these and related conservation strategies are notably lacking.[21]21 There are 105 endemic species of bamboo in Indonesia. Among 39 species of bamboo present on Sulawesi, 22 of those are endemic to Sulawesi has a bamboo endemism rate of 56.4%.[22]22 Sulawesi is the center of *Dinochloa* bamboo diversity in Indonesia, with more species present than in other areas of Indonesia. Gorontalo province in northern Sulawesi contains *D. truncate, D. pubiramea, D. barbata, D.* wartabonei, while South Sulawesi province contains *D. hirsuta*, *Fimbribambusa soejatmiae*, *Racemobambos celebica****[23]23***. On Sulawesi, bamboo grows in the primary or secondary forests, forest margins, and along the riverbanks. Bamboo provides forage to the endangered endemic Anoa (Dwarf Buffalo), including the Lowland Anoa (*Bubalus depressicornis*) and the Mountain Anoa (*Bubalus quarlesi*). Babirusa eat bamboo shoots in Sulawesi. *Macaca nigra* also rely on bamboo for food, though this is a much smaller part of their diet than fruits. The vulnerable Tarsius (Tarsius supriatnai) relies on bamboo as nest trees in agricultural areas and secondary forests, due to habitat encroachment in primary forest.[24]24 Sulawesi Woodcock *Scolopax celebensis* relies on the montane forests found between 1,700-2,300 m and the bamboo thickets down to 1,100 m.

The ecosystem profile for Wallacea was developed by the Critical Ecosystem Partnership Fund (CEPF) between June 2013 and February 2014,[25]25 The profile lists 560 species in Wallacea that are classified by IUCN as globally threatened, and for most, the key to conservation is protection of adequate areas of appropriate habitat.[26]26 Key Biodiversity Areas (KBAs) ? which is used a core criteria for conservation landscape selection in the proposed GEF project, are those that contribute significantly to the global persistence of biodiversity that may include many unique species or home to one species found either nowhere else or in only a few other places[27]27. The CEPF therefore identified important KBAs, where these threatened species are known to survive. There were 251 terrestrial and 74 marine KBAs identified using records of the presence of globally threatened species. The KBAs include Important Bird Areas (IBAs) and Endemic Bird Areas (EBAs). KBAs were summarized into KBA clusters. South Sulawesi was identified by CEPF as one of the top five KBA clusters in Wallacea with high biodiversity values, threats, need of funding and other criteria. Flores and Sumba also scored high across all criteria but were not scored high enough to make it into the top 5 (of 26 KBAs).

In some cases, the protection of discrete areas of habitat in a KBA may not ensure the survival of a species, especially where the species ranges widely over the landscape or occurs at a very low density. Terrestrial corridors were identified to link prioritized KBA clusters. These large areas play a vital role in ensuring connectivity between KBAs. In doing so, they also play an important role in ecosystem

functions important for human livelihoods, such as by protecting water supplies and preventing coastal erosion.[28]28

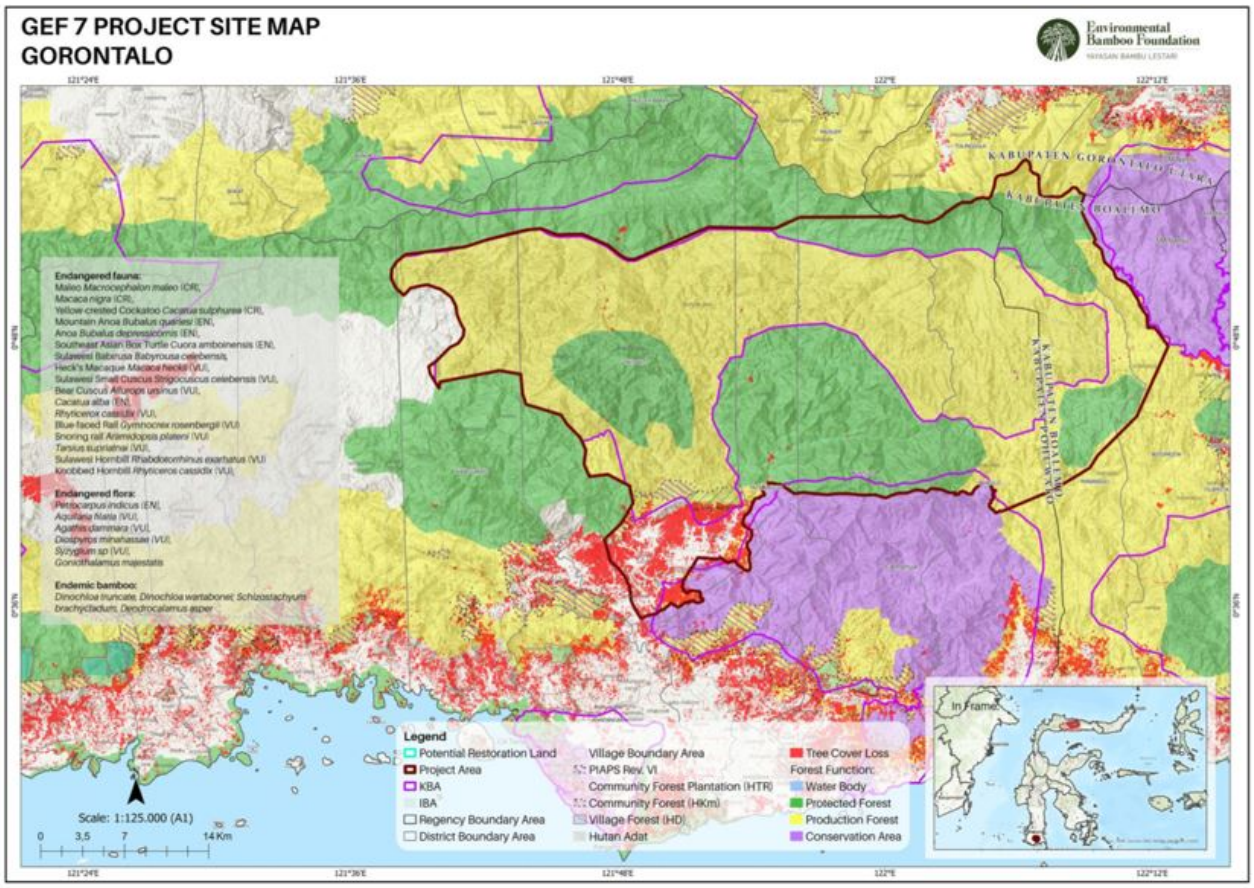
The 5 project sites in 3 Provinces in Indonesia?s Wallacea eco-region are depicted in the following map.

Figure 1: Project sites in Indonesia's Wallacea eco-region

Overview of each site:

1. **Popayato-Paguat KBA, Gorontalo, Sulawesi**: The total area of intervention covers the Popayato-Paguat Key Biodiversity Area (KBA) in Gorontalo, spanning across 179,747 hectares. This area comprises different land classifications, including 43,969 hectares of protection forest, 76,149 hectares of production forest, and 5,756 hectares of Areal Penggunaan Lain/Other Use Area (APL). Notably, there has been a reported forest loss of 4,326 hectares, which is likely underestimated, and data on forest degradation is currently unavailable. The Popayato-Paguat KBA, covering 73,982 hectares, has been identified by Burung Indonesia as one of the most intact biodiversity hotspots in Sulawesi, with valuable endemic fauna. It serves essential ecological functions, such as hosting several small and medium-sized watersheds that are crucial for downstream settlements. Additionally, the KBA supports globally rare endemic biodiversity and ensures connectivity between the Panua Nature Reserve and Nantu Wildlife Reserve in the south and northeast, as well as nine protected forests in the north, east, and south. The KBA is situated within a vast natural landscape, spanning 257,000 hectares, which includes 70% of all conservation and protected forests in Gorontalo Province. It plays a vital role in providing headwaters for the Randangan and Paguyaman watersheds, contributing to water provision for the southern part of the province. Based on a preliminary biodiversity survey conducted in 2009 by Burung Indonesia and the Indonesian Science Institute (LIPI), the Popayato-Paguat KBA is home to a diverse range of species, with at least 20 species of mammals, 87 species of birds, 16 species of reptiles, 9 species of amphibians, and 207 species of plants recorded in the area. Among these, 36 species of birds, 10 species of mammals, 2 species of reptiles, 2 species of amphibians, and 4 species of plants are endemic to Sulawesi. The forest types found in the area include Primary and secondary lowland tropical forest.

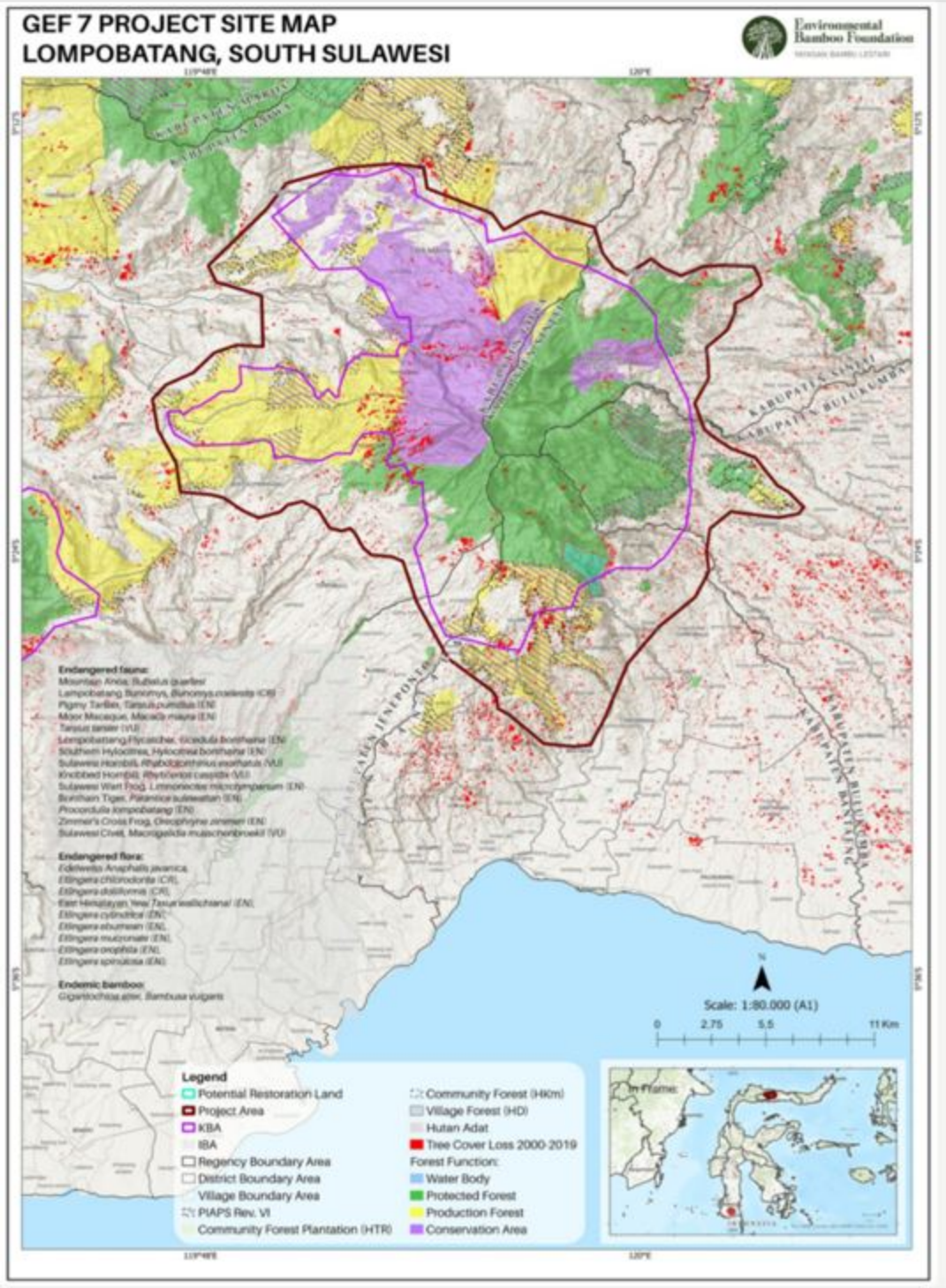
Figure 2: Gorontalo project site map



2. **Gunung Lompobattang, South Sulawesi**: The total area of intervention in Gunung Lompobattang covers 54,420 hectares, which consists of 12,522 hectares of protected forest, 11,558 hectares of production forest, and 22,298 hectares of Areal Penggunaan Lain/Other Use Area (APL). Over the course of 20 years, there has been a total forest loss of 1,471 hectares, but degradation is considered a more significant factor in this area. The Karaeng Lompobattang Key Biodiversity Area (KBA) spans approximately 32,814 hectares and primarily consists of protection forest (Hutan Lindung). It also includes two protected areas: TWA Malino in Gowa district and Taman Hutan Raya Abdul Latief in Sinjai district. The forest types found within this KBA are the Lower Mountain Forest ecosystem zone (1,000 ? 1,300 meters above sea level), the forest ecosystem zone of upper mountains (1,300 ? 2,400 meters above sea level), and the alpine ecosystem zones (Sub Alpine Forest at 2,400 ? 3,000 meters and Alpine Forest above 3,000 meters above sea level)[29]29. Notably, Bawakaraeng, with an altitude of 2,883 meters above sea level, is one of the seven highest peaks in the Sulawesi region and is located within the Lompobattang mountain area. During the Wallacea KBA assessment conducted by Burung Indonesia in 2014, the Karaeng Lompobattang area was identified as a significant locality for numerous endemic, restricted range, and globally threatened species, particularly for southern Sulawesi region restricted species from various taxa. As a result of this analysis, the KBA Karaeng Lompobattang scored extremely high for both irreplaceability (single site species) and vulnerability (critically endangered species).

This assessment led to Karaeng Lompobattang being recognized as one of the top 24 priority KBA in Wallacea, as documented in publications by Wood et al. (2015) and Burung Indonesia. (*in publication*)).

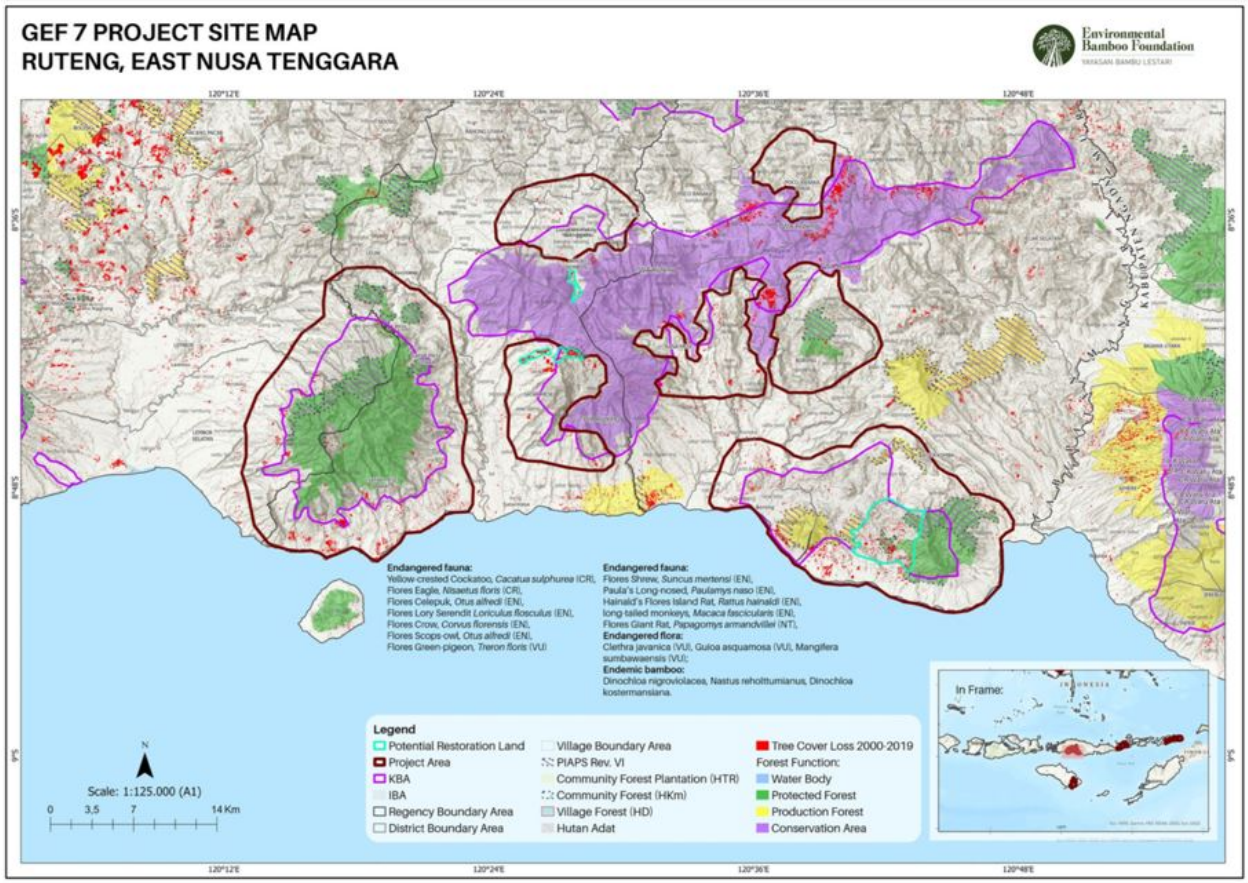
Figure 3: Lompobattang site map



3. **Todo-Repok/Ruteng, Flores, East Nusa Tenggara**: The total area of intervention covers 87,409 hectares, comprising 15,136 hectares of protected forest, 1,732 hectares of production forest, and 69,157 hectares of Areal Penggunaan Lain/Other Use Area (APL). Over the past 20 years, there has been a total forest loss of 1,596 hectares. The Key Biodiversity Area (KBA) in this region spans approximately 33,052 hectares. The forest restoration goal for the

area is set at 2,666 hectares. The diversity of flora and fauna species in this region is notably high. There are 252 species of flora, belonging to 19 genera and 94 families. As for fauna, the area is home to 21 species of mammals, of which 3 are endemic, 9 species of reptiles, 13 species of amphibians, and 65 species of birds, with 7 of them being endemic.[30]30 Forest types: There are 4 types of forest occurred in this area: secondary forest, lowland forest, sub-mountainous forest and mountain forest. Dominant species in the lowland was covered by *Euphorbiaceae* and *Lauraceae*. In the secondary forest, it was dominated by *Euphorbiaceae, Lauraceae* and also *Eucaplyptus urophylla*. *Elaeocarpus floribundus*, *Podocarpus amarus*, *Ehretia timorensis*, *Knema cinerea*, *Elaeocarpus sp*., *Prunus sp*., and *Litsea sp. (ii)* are abundant.

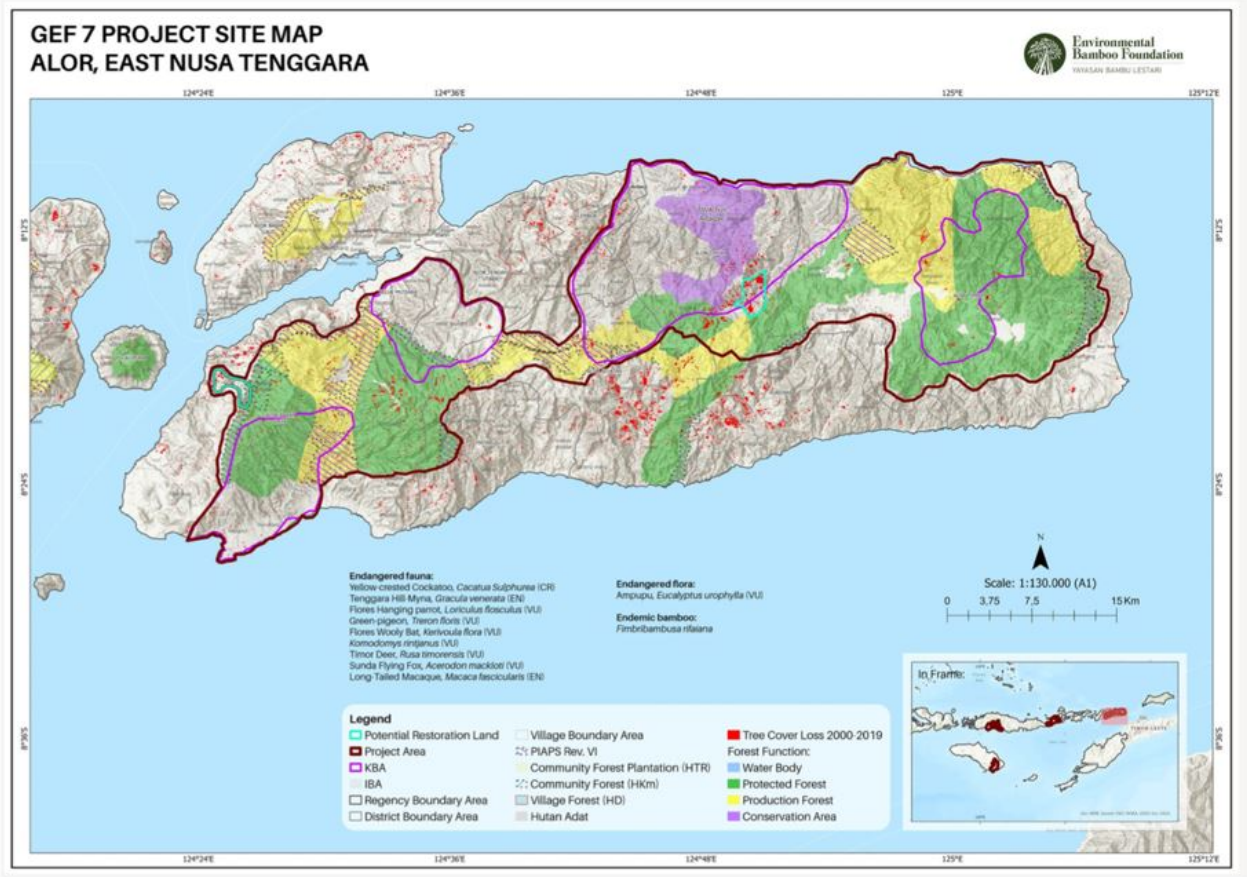
Figure 4: Todo Repok - Ruteng project site map



4. **Alor Island, East Nusa Tenggara**: The total area of intervention in Alor Island covers 109,522 ha that consists of 5,705 ha conservation forest, 42,072 ha protected forest, 24,862 ha production forest, 35,533 ha APL, with total forest loss of 1,539 ha. The KBA area is 49,811 ha. Forest restoration goal is 1,094 ha. A total of 247 species of bird have been observed on

Alor[31]31. Researchers note that Alor?s endemic avifauna has long been overlooked: recently, the distinct endemic Alor Boobook (or Alor Hawk Owl) *Ninox plesseni* was upgraded to species status on the basis of bioacoustics research, as was the Alor Cuckooshrike *Coracina alfrediana*, thus the island is proposed as an Endemic Bird Area.[32]32 Forest types: Lower monsoon mountain forest dominated by *Eucalyptus urophylla* (EN), tropical dry semi-evergreen forest and tropical dry deciduous forest dominated by *Tamarindus indica* and *Terminalia cattapa,* lowland *Eucalyptus alba* savanna, dry dipterocarp lowland volcanic forest, including *Cannarium* forest and *Eucalyptus urophylla* forest occurs around 320 ? 1300 m.[33]33

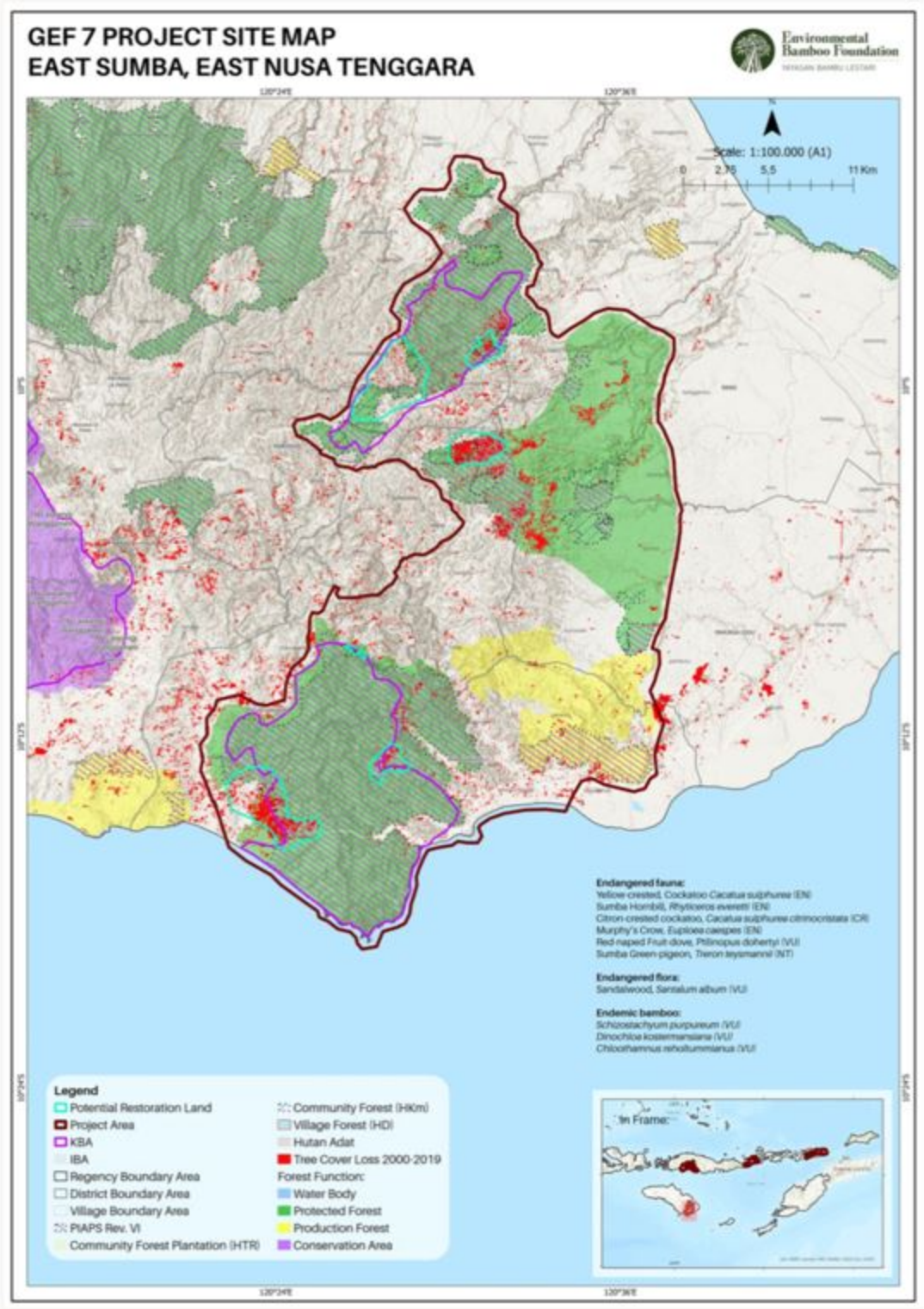
Figure 5: Alor project site map



5. **South-Eastern Sumba, East Nusa Tenggara**: The total area of intervention in Southern Sumba covers 79,032 ha that consists of no conservation forest, 44,647 ha protected forest, 6,094 ha production forest, 57,341 ha APL, with total forest loss of 3,206 ha. The KBA area is 19,689 ha. Forest restoration goal is 4,243 ha. Sumba contains 316 species of birds, 10 of

which are endemic[34]34. In this specific project area: Forest types: Monsoon semi-deciduous forest and monsoon evergreen forest;

Figure 6: East Sumba site map



Threats, root causes and barrier analysis

Threats

Across all sites, the main direct drivers of biodiversity loss are habitat change (loss, degradation, and fragmentation), agricultural expansion and overexploitation of forests and agricultural soils,

overgrazing, and illegal encroachment. Behind these direct drivers are underlying drivers of poverty, search for new arable lands, lack of government coordination, tenure insecurity, all of which is also intensified due to climate change risks (these are further explored in the next section on root causes). The 5 proposed project landscapes all have unique driver pressure patterns in each site. These are explored below.

1. *Popayato-Paguat, Gorontalo*: Extensive forests remain in the mountains, but large areas have been cleared or degraded by agricultural expansion. Illegal hunting, illegal logging, slash-and-burn clearance, poaching for wildlife trade, gold mining, forest encroachment spreading westward, and transmigrant settlement and related expansion have been identified as drivers. Much of the primate habitat is outside protected areas. The vast majority of Heck?s Macaca *Macaque hecki (*VU) habitat (which is in the project area) is outside protected areas, yet the forest loss in its habitat range between 2000-2017 was 12%, which was among the higher rates observed across all of Sulawesi.[35]35 Potential available habitat has halved from its original range. Similar pressures are documented on the recently discovered Tarsius supriatnai, which has suffered more than 30% of its habitat being converted in the last 20 years, mostly coming from non-conservation areas.[36]36 Spatial assessment of forest cover loss between 2000 and 2019[37]37 identified ?cacao mixed plantation? as the largest contributor of forest conversion, at 2,043 ha (half of the forest loss in this site). The cacao mixed plantation land cover consists of cacao, coconut, oil palm, coffee, and other fruit crops. Spatial assessment indicates a significant amount was attributed to oil palm. Corn planting was the second largest driver at 747 ha over the time period, followed by settlement expansion. Mining has been a driver near Panua, and there may be gold mine pressure in Popayato ? Paguat Landscape. Illegal mining is still being one of the drivers of deforestation in several locations, such as in Taluditi, Patilanggio, and Buntulia Sub-districts. Future threats: Continued agriculture expansion, and road infrastructure such as Trans Sulawesi project (rail and road) part of China?s Belt and Road Initiative (BRI) which may be built in the north part of the province (outside the project area), and the mountainous terrain will limit encroachment from the north.

2. *Lompobattang, South Sulawesi:* The PPG driver assessments? spatial analysis between 2000-2019 indicates forest changed to mixed dry land farmland cover, consisting of commodities such as potatoes, corn, shallots, and cabbage. Agricultural encroachment into forest areas (coffee, porang, corn, cocoa, vegetables for markets in Surabaya and Kalimantan), and unregulated villa development for tourism are identified by stakeholders as key drivers. Stakeholder perception of drivers attributes more risk from tourism than verified through spatial assessment. Though villas have been developed over the 20 year period, this occurs mainly on agricultural land near roads (which may have an indirect affect of pushing farm land into forest areas). Forest degradation has occurred by conversion of natural forest into coffee plantation often occurring up the slopes and into the TWA area. Degradation drivers centered around logging commercially lucrative timber such as pine, and to a lesser extent ulin (ironwood), ebony, teak, and other species. Pine plantations degraded forests over 2000-2019 but are no longer a significant threat as the pulp mill closed in the region. The degree to which firewood harvesting contributes to forest degradation is unknown, but it is likely considerable. Wildlife poaching and harvesting of rare mountain plants by hikers are identified as problems by BKSDA and the TWA Resort, but official statistics on impacts are lacking.

3. *Todo Repok/Ruteng, East Nusa Tenggara*: Spatial analysis indicates that majority of forest conversion for agriculture or plantations results in shrub land coverand the land is not fully utilized. Forest loss is dominated by land clearing for agriculture and to a lesser degree, expansion for settlement. Based on field visits, there was land clearing for geothermal construction in Satar Mese subdistrict. The geothermal development is expected to serve much of Flores island but plans for local rural electrification (to stem the dependency on firewood collection) are non-existent. Also, there some natural forest areas have been converted into coffee and farmland around TWA Ruteng, especially in northeast TWA in Colol Village. This site needs attention so that forest cover is maintained.

Degradation drivers are firewood collection (households rely solely on firewood), illegal encroachment and timber extraction into Ruteng TWA, which is a challenge.

4. *Alor, East Nusa Tenggara*: Spatial analysis indicates that between 2000-2019, forest loss has occurred due to agricultural expansion. In some areas, agricultural land cover is similar to shrub land cover. Interestingly on Alor, fairly large numbers of newer settlements and agricultural areas have occurred on ridgetops, which explains the clearance of *Eucalyptus urophylla* (EN) trees. Newer farmland areas include crops such as coconut, coffee, cloves, tobacco, candlenut and some new canarium trees. Even though the changes caused are not that significant from 2000 ? 2019, there is illegal hunting, bush fire, and land clearing around Gunung Muna,. Around Tuti Adagae IBA, threats include settlements in the conservation area, wood collection for housing, and poaching of fauna for trade. [38]38

5. *Sumba, East Nusa Tenggara*: About 60-90% of the island?s forest cover was cleared between 1927 and 1990, leaving forest fragments only. Spatial analysis indicates that between 2000-2019, over 3,595 ha of forest was converted, 2,297 of which was in protected forest, 1,161 ha was in other landuse (APL), and only 135.8 ha came from production forest. This affirms the project?s observations that protected forest is more at risk and requires improved management. The forest area was changed to shrub, savannah, and mixed dry land farms. The main drivers of deforestation are logging and forest encroachment, likely due to historical sandalwood logging (the land cover caused by this driver is classified as shrub, likely due to the dry landscape). Land clearing for agriculture and animal husbandry is the second largest driver. Changes in forest cover to shrubs and savanna were also caused by fires and forest clearing that occurs due to these activities and also occurred during the transmigration program. In some areas, open land is burned to triggering the grass to grow back for livestock. Forest conversion to mixed dry land farms occurred due to the need for large agricultural fields. The commodities identified include corn, soybeans, legumes (red and green beans), and tubers (roots and sweet tubers). Though not a driver of deforestation, the increasing outbreaks of grasshoppers as pests devastating seasonal crops over the past 3 years may cause farmers to expand cropping areas in order to increase yields (some farmers have lost an entire season or more of crops).

Root causes

The root causes of biodiversity loss and land degradation in the targeted project areas are due to a range of factors, including poverty and rapidly growing settlements; limited economic opportunities; and weak governance. Poverty is an underlying driver in all sites. Apart from South Sulawesi, East Nusa Tenggara and Gorontalo are amongst the poorest provinces in Indonesia, ranked at No. 3 and 5 respectively[39]39. All three provinces are less developed than larger islands such as Java and Sumatra, have a low human development index and show high income inequality determined by education, wealth, and employment.[40]40 These provinces suffer unequal opportunity and low community resiliency compared to other regions. Resource exploitation and agriculture are the main sources of livelihood/income for many. Settlement growth and infrastructure development driven by economic objectives causes negative impacts on forest and habitat areas.

Limited economic opportunities affects each of the sites, although differently. East Nusa Tenggara is one of the least developed provinces in Indonesia and is primarily based on subsistence agriculture, fisheries and seaweed production. Most farmers grow rice for food self-sufficiency purposes as well as corn, cassava, sweet potatoes, and peanuts. Cash crops such as coconut, cocoa, cashew, candlenut, and coffee are also grown on small holdings. Alongside agriculture, fisheries make up a large portion of the local economy, with tourism steadily growing as an alternative livelihood. The limited economic opportunities available and persistent food insecurity issues have led to hunting in designated protected areas including wildlife reserves, and species being offered for the global illegal wildlife trade as a means to supplement their financial needs.

Root causes are identified according to each site:

Gorontalo
Gorontalo province is located on the northern arm of Sulawesi island and has a population of around 1.1 million people and an area of 1.2 million ha including 826,000 ha of forests, and has been designated a ?conservation province? by the Minister of Environment and Forestry due to its high biodiversity values. Gorontalo has been an important transmigration destination since the 1950s and this has been major contributor to loss of forest cover, yet there are no data on the numbers of transmigrant communities. Destinations have included: Pangea SP 2 and SP 4 villages in Boalemo District, Puncak and Ayumolingo villages in Gorontalo District, Deme Village in North Gorontalo District, and Marisa 5B village in Pohuwato District. The transmigration program has been halted by the local government since 2015, noting the insufficient skills brought by transmigrants.[41]41

Gorontalo?s poverty rate is a major cause of environmental degradation and biodiversity loss in the province. National and provincial government policies promoting intensification and extensification of corn production have led to widespread clearing of unsuitable, hilly land. This has resulted in serious erosion and siltation of important water supply systems and reefs on which fishermen and seaweed producers depend upon. The push to corn has led to high levels of indebtedness of small farmers as they try to finance chemical inputs. Many communities conduct unsustainable practices including harvesting timber and planting palm oil in protected forests areas. Illegal gold mining is spurred by the price for gold and lack of alternative livelihood-generating activities, resulting in high long-term environmental and human risk from mercury used in artisanal processing.

South Sulawesi
South Sulawesi is the sixth most populous province in Indonesia with an estimated population of 9.2 million in 2022.[42]42 Its economy depends largely on agriculture, fishing, and mining of gold, magnesium, iron and other metals. The provincial capital and regional port of Makassar has a growing population of 1.6 million and is a major education center for Eastern Indonesia with 18 registered universities. The province has a good road infrastructure which contributes to the two main drivers in the Malino/Lompobattang area: horticulture cultivation and tourism. The underlying drivers are a combination of poverty and a growing middle class in the nearby urban area.

Horticulture thrives in the fertile soils in the mountains around Malino and the temperate climate enables a much wider variety of crops than is possible in the irrigated lowlands. There are ready markets in Makassar and Kalimantan facilitated by quick road access to Makassar and regular vehicle ferries to Kalimantan ? a market that is likely to grow with the construction and opening of the new national capital.[43]43 In-migration poor agricultural labor is adding pressure on adat communities in the area, and pushing them into forested areas, including the fringes of conservation areas. Traditional communities are sustainably harvesting the generally under-valued Arabica coffee, although low volumes and fragmented marketing have led to the practice of blending it with the higher-valued Toraja coffee from the same province.

Tourism is the other main driver in the area with increasing numbers of holiday villas catering to Makassar?s middle and upper classes just three hours away. Poor enforcement of zoning restrictions has led to the reconfiguration of protected areas in an ?accept our losses and try to do better in the future? strategy, but without any clear plan for controlling and limiting future growth. Money from Makassar and an imbalance of power will continue to drive development in the area unless all stakeholders come together to map out a firm pathway ? and enforce it.

East Nusa Tenggara (NTT)

The census in 2020 put the *East Nusa Tenggara* population at 5.3 million with an annual population growth rate of 1.5%.[44]44 2022 data had 20.2% of the population below the poverty line, with the highest poverty severity (0.95) in all of Indonesia. 13.74% of the population suffer from insufficient food consumption and nearly all of the districts in NTT fall within the 100 most food insecure districts in Indonesia. While all three target provinces have rates of childhood stunting greater than the national average (21.6%), NTT has the worst rate nationally at 35.3% (2022 data). NTT is very poor and aspects of poverty underly nearly all drivers of deforestation and land degradation.

Table 4: Poverty rates per project site in NTT

Regency	**Population below the poverty line % (BPS 2022)**
Sumba Timur	27.45%
Alor	20.25%
Manggarai	19.84%
Indonesia average	9.57%

NTT has a long dry season, no major rivers and only a few perennial streams. Communities in NTT suffer from water scarcity, are prone to drought and suffer more severely from El Nino weather patterns associated with climate change. Most food crops in NTT are produced in dryland farming systems, although there are some irrigated crop lands in Manggarai regency (outside the target area). Tourism is growing steadily in selected areas outside the target areas. Livestock stocking rates have been steady over the past five years, at about 45,000 head of cattle across the province since 2014.

East Nusa Tenggara is one of three national priority provinces identified as Indonesia?s Land Degradation Neutrality (LDN) hotspot.[45]45 Total degraded land area in East Nusa Tenggara area was 1,356,757 ha by 2009, of which 299,291 ha were in forest areas and 1,057,466 ha were in non-forest land.[46]46 Those estimates are likely far higher now, over a decade later. Factors leading to land degradation include impacts of overgrazing and grassland fires; poor topsoil management due to fire hazards; landslides and erosion due to previous land clearing and water run-off; as well as subsequent high sedimentation rates downstream owing to severe erosion and floods. The islands are characterized by hilly topography (26?46% slope), with young sedimentary rocks, the often thin layers of topsoil and rocky soils and volcanic parent materials, resulting in high erosion sensitivity and land degradation in case of unsustainable practises. Additionally, there is low vegetative cover, low infiltration rates, and high runoff and risk of flooding. The dry season in East Nusa Tenggara is nine months and rainy season three months, with high levels of erosion.

Productivity of farmland and land carrying capacity in East Nusa Tenggara Province shows a general downward trend year after year.[47]47 Land productivity is very low, thus requiring many inputs from farmers to maintain production.[48]48 While agricultural land has decreased significantly in the province, from being 57% of total land area in 2007, to only 29% in 2017, the productivity of farms has also fallen. This is influenced by population growth that is leading to conversion of agricultural lands for urban use, putting more pressure on the remaining farmlands to maintain needed production levels. This has led to soil degradation, overexploitation of ground water (which is already restricted) and other LD aspects. In some areas, encroachment is ongoing into protected areas and in protected forests (Hutan Lindung); whilst specifically Sumba, Todo-Repok/Ruteng, and Alor show having degraded areas within KBAs

East Sumba

All of the factors above come into play in East Sumba. Upwards of 80% of East Sumba?s tree cover is estimated to have been lost from Portuguese, Dutch and New Order-era logging practices, and the savannah that has replaced it has poor, thin eroded soils. Water springs and remaining forested areas are found in steeply sloped ravines or valleys with limited non-irrigated cultivation of paddy, corn and peanuts. Livestock is an important source of income and is culturally significant, but cattle are managed without fodder banks, are not corralled, and are left to roam freely. The livestock sector has very low productivity: the carrying capacity of grasslands in East Sumba is 3-4 ha per head of cattle with a very low herd turnover rate. Low productivity is compounded by poor land management practices. Once the dry season arrives, it is customary practice to burn remaining dry grass to force new shoots for feed ? often burning out of control and damaging or destroying already-fragmented forests. Although periodic fires are a natural phenomenon, they now occur so frequently that vegetation has little chance to recover, and uncontrolled fire on relatively small areas of valuable forested and cultivated land are substantial.[49]49 Fire management programmes for remaining forest and grasslands are necessary.

The practice of burning grasslands also kills ants and other insects in the very top layer of soil, which have served as natural predators for grasshopper eggs buried slightly deeper in the soil. The result is a near-continuous cycle of grasshoppers, with clouds of the pests devouring remaining agriculture. Diminished bird populations mean fewer predators for adult grasshoppers. These infestations are correlated with El Nino years which have been occurring more frequently in recent decades, and the past three years have seen a continuous cycle. In February 2023, the regency declared a one-day holiday, and everybody was instructed to go out and catch as many grasshoppers as possible in exchange for rice. The 21.5 tons of grasshoppers collected in one day were estimated to eat approximately US$2.5 million of paddy, corn and peanuts. Farmers report they feel compelled to buy seed to plant in anticipation of grasshoppers not emerging, yet have now seen three successive crops devoured and their families further impoverished.

Transmigration (root cause: poverty and no access to resources) and population growth are also important drivers of forest cover loss in East Sumba, with a corresponding need for lumber for settlement building, and some practice of slash-and-burn shifting cultivation.

Alor
Alor sits at the far boundary of the Wallacea region which accounts for its unique fauna, especially birdlife. It is also the far end of a high-cost transportation chain which severely limits livelihoods development and provides communities with few options. Poverty is the underlying root cause of forest degradation in Alor, with bird sales being one of the few non-agricultural activities available to supplement incomes.

Todo-Repok/Ruteng
The high rates of poverty in the main regency, Manggarai, have led many men to migrate to find work in the oil palm plantations of Kalimantan and Malaysia leaving a large number of female-headed households, typically further reinforcing poverty.[50]50 In an interesting counterpoint to tourism pressures in South Sulawesi, ecotourism development has been identified as a factor in *protecting* forest cover in the Todo Repok area of Manggarai. Tourists to Todo Repok are drawn from Labuanbajo in Manggarai Barat where the Komodo dragon megafauna is the prime attraction and are thought to be more environmentally focused.

Summary of root causes at each site:
1. Popayato-Paguat, Gorontalo: Government promotion of corn growing as a national priority has fuelled land use change. Farmers get trapped within debt cycles as they obtain inputs from collectors and then are beholden to sell to them at low cost. Significant trans-migration has increased population and pushed people into the forest frontier.

2. **Lompobattang, South Sulawesi**: Poverty and poor land tenure. Climate change impacts are affecting coffee production, pushing it higher up slopes.
3. **Todo-Repok/Ruteng, NTT**: Poverty, climate change impacts are reducing water in the dry months in the norther regions of the KBA and impacting agricultural yields such that farmers are expanding to address yield problems. The role of collectors and low commodity prices keep farmers in a cycle of debt.
4. **Alor, NTT**: Poverty, high demand for *cacatua sulphurea* eggs and other wildlife in the market, weakening of adat traditions and laws
5. **Sumba, NTT**: Poverty, trans-migration (internal to Sumba), grasshopper outbreak decimated corn crop in 2023 leading to food shortages (short-term, imminent)

Barriers

Barrier 1 ? Lack of economic incentives and knowledge by local government to plan, invest and manage high-value BD in conservation landscapes based on species and habitat ecological considerations

For many of the key flagship species of flora and fauna in this proposal (e.g. Babirusa, Macaca, Anoa, Cacatua, Maleo fowl, Ebony, Rosewood, Sandalwood) at least 50% of their habitat requirements are outside protected areas. Much of their habitats are found in (watershed) Protection Forest, or *Hutan Lindung* areas, that have inadequate biodiversity management and enforcement (though they contain KBAs or IBAs). Encroachment for agriculture and wildlife poaching is a common driver of biodiversity and habitat loss. There is lack of ecological knowledge and awareness of the importance of these species, and their habitat requirements outside conservation areas, which has resulted in high levels of forest clearance and degradation.

In 2011, KLHK, working with other ministries, estimated that 80% of biodiversity (ecosystems, species, genetics) of significant value is outside the formally gazetted protected area system, as well as forest designated as ?*Hutan Lindung?* or Protection Forest (e.g., for their watershed protection function), representing a total area equalling about 105 million hectares. In line with this, a 2018 BAPPENAS study showed that there were 43 million hectares of high biodiversity outside the above stated protection forests and PA system. In accordance with the Medium-Term Development Plan (2020-2024) and the Strategic Plan of the Directorate General for the Conservation of Natural Resources and Ecosystems (KSDAE), improved biodiversity protection in these Conservation Areas/Protection Forest ,[51]51 as well as improved management in the 27 million ha of high biodiversity is now a key program activity (and performance indicator) for the period 2020-2024. The program is implemented through the inventory of areas with High Biodiversity Value and Key Biodiversity Areas (KBAs),[52]52 which include Important Bird Areas (IBAs) as the basis of identifying existing habitat requirements.[53]53 In 2020, KSDAE released the report, ?*Inventory report and verification of areas with high biodiversity values outside Nature Reserve Area (KSA), Nature Conservation Area (KPA) and Hunting Parks (TB) in 2020*,[54]54? which represents the first phase of identification of these areas, covering 8 million ha, which can then form a basis for designing strategies to address these gaps in biodiversity conservation. The means of achieving improved management for biodiversity could be achieved through community conservation areas and partnerships, Other Effective Area-based Conservation Measures (OECMs), new land designations and identification new KBAs, as well as other mechanisms of benefit to biodiversity conservation. Though Indonesia is beginning to define possible OECMs, all these will require partnerships with local communities, commitment from sub-national governments (especially those that have permitting and land management authority) and building capacity for long-term commitments to biodiversity and conservation outcomes.

KBAs are often fragmented in the project landscapes and are particularly vulnerable to deforestation if they are small and unprotected.[55]55. Though CEPF[56]56 identified important corridor areas in 2014 to link fragmented KBAs and conservation areas, additional conservation and protection efforts have yet to transform these recommendations for connectivity into larger landscape-scale management objectives such as under the system of FMU forest areas. There is a low level of integration of biodiversity values in the system of Forest Management Units (KPH) in areas recognized by the government as KBAs, leading to very suboptimal buffering, connectivity and mainstreaming of biodiversity conservation in conservation landscapes. There is a need to address the institutional capacity of village-based stakeholders to engage in these KPH participation and planning processes, but also to bring inclusive and multi-stakeholder and cross-sector input towards their implementation, to optimize forest protection and utilization that respects traditional community interests and livelihood needs, and integrated landscape management, which is currently lacking.

Barrier 2 - The large gap between national biodiversity priorities and the mainstreaming of biodiversity in landscapes at Provincial level leading to lack of coordination and/or absence of biodiversity objectives in regional land use planning and local government?s five-year development plans.

The enactment of Law No. 23/2014 on Local Government which was amended through Law No.9/2015 states that provincial governments have the authority to manage the protected and production forests under their administration with the supervision of the national government. Under this mandate, the provincial government formed district-level FMU/KPH as the regional forest management units. However, the regulation excludes Protected Areas and conservation forests (*Hutan Konservasi*), which are still managed centrally by the national government. On the other hand, the spatial planning which is reflected at the district-level five-year (economic) development plan (RPJMD) must cover all areas within their administration including all forest areas. In this regard, a close-knitted coordination between the provincial?s technical management unit (UPTD), the national?s technical management unit (UPT) and the local district government is needed with regards all forest and conservation areas located at provincial and regional level. Given the absence of biodiversity conservation objectives and coordinated land use planning process in the development of district?s RPJMD, development pressure on the landscape will intensify and eventually lead to further loss and degradation of key habitats for biodiversity.

Barrier 3 ? Lack of capacity and technical assistance to communities to enhance social forestry concessions? outcomes for biodiversity and sustainable land management benefits:

The Indonesian government has a target to increase social forestry area to 12.7 million hectares, from the 1.8 million hectares that exist today. However, the process of obtaining a social forestry permit is onerous and technically difficult for local communities, with up to 26 steps that involve agencies/actors at village, district, provincial and national levels, and can take up to 3 years to complete. There is a lack of knowledge of how to simplify licensing procedures while maintaining institutional and ecological safeguards. These safeguards include preparing and enforcing a management plan and agreeing on specific plans for increasing timber stock and conserving ecologically fragile areas. [57]57 Furthermore, the complexity of finding approvals across central, provincial and district governments has been challenging, [58]58 . one review found that by 2014, only 20?30% of permit applications approved by KLHK received final approval from the regents (at the district level) and governors (at the provincial level).[59]59 Social forestry concessions provide an opportunity to address adat land tenure conflicts, and many adat communities do not view social forestry concessions solely to engage in forestry activities, but rather to obtain greater tenure security of their ancestral lands (this is important in all proposed project sites except Gorontalo in areas that are subject to transmigration pressures). Many adat communities practice their own customary land

management systems which respect biodiversity values and sacred forest areas, but due to tenure insecurity and lack of formal legal recognition, they lack rights and authority to carry out these land management practices. In many of the proposed project sites, the government has identified possible social forestry concessions in KBAs in protection forests, which means that if these concessions were granted for purposes of timber/wood fuel production, it would compromise both the biodiversity- as well as sustainable forest management outcomes in these forests. Thus, these are areas prioritized for interventions that can address tenure conflict, while working with adat communities to strengthen local biodiversity management, stop encroachment, and identify sustainable livelihood options (such as through NTFPs, ecotourism, bamboo shoot harvesting). The entry point of social forestry allows for better spatial planning and field delineation with communities and will require land management plans in Hutan Lindung.

Provincial KSDA?s report that one of the barriers they face is conflicts with communities over land rights. This conflict with communities comes from historic unresolved land claims rooted in the process of incorporating land under customary management in the forest estate. It is exacerbated by a lack of understanding within the community about the ecological, economic, and socio-cultural functions of the forest and a lack of capacity by KSDA to engage with communities on these issues.[60]60 Though Central government has defined this social forestry target, KLHK and its sub-directorates and Provincial KSDAs do not have the additional fiscal and human resources to carry out this goal. Communities often lack the technical and administrative capacity to propose areas and develop the longer-term management plans for what they will do with the land. Therefore, intermediaries such as NGOs can play an important role in providing such technical assistance. However, research shows that collaborative partnerships for biodiversity protection *without* long-term (e.g., 35 year, with option for renewal) tenure access and forest rights is shown to be less effective, as it does not meet community needs for tenure security and as a basis for their longer-term investments in livelihood options, management, stewardship. Thus, tenure security may be an important solution to this barrier.

Barrier 4 ? Insufficient financial incentives for local communities to engage in sustainable forest management and biodiversity conservation, while pursuing livelihood activities that are biodiversity-friendly:

The economic incentives for village-level enterprise have historically been detrimental to conservation efforts. Government development programs have prioritized agricultural commodity production over sustainable agricultural and forest practices. This has led to encroachment for agricultural purposes, posing a significant threat to biodiversity. However, many individuals in these areas lack the necessary knowledge and skills to pursue alternative income opportunities.

Additionally, market incentives driven by commodity prices and demand have fueled unsustainable levels of production, resulting in high rates of deforestation and land degradation. The situation in Gorontalo is further complicated by the settlement of transmigrant communities near conservation areas. The value chains for sustainable alternatives to environmentally depleting commodities are slow and inefficient, leading to poor market access. Furthermore, there is a lack of coordination and cooperation among government entities, and existing private sector activities are limited and isolated.

There is a notable absence of performance measures related to biodiversity and sustainable land management integrated into government development plans, budgets, and programs. As a result, public finance is primarily allocated to depleting and exploitative activities rather than conservation efforts. The restoration of degraded areas also lacks adequate financial support.

The uncertain land tenure rights further hinder local communities from accessing finance for biodiversity-friendly livelihood alternatives to commodity production since collateral is typically linked to assets, including land. It is crucial to build capacity for community-level enterprises and develop

business plans that support biodiversity-friendly practices. However, a lack of available financial resources inhibits the realization of these efforts.

Motivating and aligning private sector investments with biodiversity-friendly business models is necessary. Additionally, fostering successful conservation partnerships between local government, communities, and the private sector can mobilize financial resources. To promote both livelihood benefits and biodiversity conservation, it is essential to blend and sequence different sources of finance such as grants, development finance assistance, Village Fund allocations, and central government allocations for SMEs and cooperatives. This coordinated approach will ensure sustainable investments in landscapes.

? Baseline scenario and associated baseline projects

The baseline scenario and associated baseline projects has been slightly updated since the PIF stage to ensure it is fully up to date with relevant new initiatives, including new government programmes. The updated baseline analysis is presented in the paragraph below.

National Development Plan (RPJPN, RPJMN)?the active development policy is the Medium-Term Development Plan (RPJMN) 2020 ? 2024 which also is the final term of the long term planning 2005 - 2025. Currently, the ministry of national planning (Bappenas) is leading the formulation of the new long term development plan 2025 ? 2045. The RPJMN 2020 ? 2024 prioritizes (i) institutional stability on both law and politic, (ii) increasing society welfare, (iii) stronger and more advance economic structure, and (iv) protection of biodiversity. Of note is that biodiversity protection is acknowledged as among the pillars to achieve a sustainable economy. The RPJMN 2020 ? 2024 has seven priority agenda to materialize, amongst others is advancing the environmental management and increasing resilience to climate change and disaster risks. Under this agenda, development programs and activities must adhere to the carrying capacity of natural resources and environmental capacity, disaster vulnerability, and climate change. The planning document acknowledges that future economic development is determined by environmental conditions in a way that climate change and declining environmental carrying capacity can have a negative impact on the achievement of economic growth targets. Protection of primary forest and threatened species habitat are among the environmental parameters to be pursued. The RPJMN 2020-2024 set targets for: a) increased habitat quality and population numbers, especially for key, protected and endangered species in each ecoregion; b) increased area and effectiveness of land and marine conservation area management; c) biodiversity can be managed in an integrated manner across all development sectors; d) the value of biodiversity benefits to national economic growth is increasing; e) increased resilience to climate change impacts in four priority sectors: marine and coastal, water, agriculture, and forestry. The above targets have been flowed down to relevant ministries to be implemented as programs. They are also integrated or formulated into more focused policies such as the NDC on emission reduction (RAN-GRK), low carbon economy, NBSAP, FOLU Net Sink, and others.

Government of Indonesia Social Forestry program: Indonesia acknowledges that the success or failure of good forest management often rests with the communities living in and around the forests. Decree No. 83 on Social Forestry provides for a careful process towards issuing Village-, Community-, and Community Forest Plantation licenses for local use, management, planting and/or protection of forests and their products with the main aim of generating enhanced community benefits from forest management, environmental protection and commercial development of the concessions, and which are valid for a period of 35 years (Articles. 53(1) & (3)). Social forestry concessions provide an opportunity to address adat land tenure conflicts, and many adat communities do not view social forestry concessions solely to engage in forestry activities, but rather they view it to obtain greater tenure security of their ancestral lands (this is important in all proposed project sites except Gorontalo in areas that are subject to transmigration pressures), to transition to *Hutan Adat*. Many adat communities practice their own customary land management systems which respect biodiversity values and sacred forest areas, but due to tenure insecurity and lack of formal legal recognition, they lack rights and authority to carry out these biodiversity-friendly land management objectives.

Many of the social forest concessions are situated inside the Forest Management Units ? as part of the State Forest estate discussed above ? yet also outside the FMUs. Much of the government baseline funding for the FMUs concerns support to the establishment of social forestry concessions. The House of Representative through Commission IV has suggested to add the allocation for MoEF for USD$ 487 million with more allocation to be added to the Social Forestry program, thus it is expected that government budget allocations will increase.

In August 2020, the Green Climate Fund approved a $103.8 million US results-based payment to Indonesia in recognition of an avoided 20.3 million tons of carbon emissions between 2014 and 2016. The vast majority of this payment will be channelled to support and expand decentralized sustainable forest governance in Indonesia, including its *Social Forestry programme* ? as key baseline programme for the GEF project, that will benefit the GEF project through in-kind support on assisting communities to access tenure on a minimum of 99,000 ha. Under this landmark programme, 12.7 million hectares of Indonesia?s State Forest estate, or 10 %, have been designated for Adat (adat) or local community management. The programme formalizes respect for customary or collective tenure rights and provides funding for sustainable forest management, community-based conservation initiatives and forest and landscape restoration activities, among others. Social Forestry is commonly viewed as a forest production program (e.g. woodlots for timber and fuelwood production, timber for export), and not as a means to protect biodiversity. Without piloting social forestry concessions with communities that prioritize biodiversity protection and conservation, BD will continue to be an outlier in this national program seeking to boost rural timber production.

Indonesia also received U S$17 million in grant funds from Climate Investment Funds for public sector support to assist communities in: *Indonesia: Community-Focused Investments to Address Deforestation and Forest Degradation,* submitted by the Government of Indonesia and Asian Development Bank (ADB) [61]61 This is a source of in-kind support for the GEF project.

National Forest Management Unit program (FMU): The Directorate General of Watershed Management and Protected Forest -KLHK is responsible for coordinating those FMUs involving Protected and Conservation Forests and allocates $6,938,566 each year for the improvement in planning of forest management in Indonesia (note ?production? FMUs are under a different directorate general). Provincial government are mandated and in the lead on the establishment and management of their FMUs. National guidance by the MoEF advises Provincial governments to incorporate biodiversity considerations as a FMU management objective, but there is no strict requirement and as a result this is seldom being applied. Given the large overlap between FMUs and landscapes identified as KBAs, this represents a technical gap and missed opportunity to strengthen biodiversity conservation in the landscapes outside actual protected areas ? and which is the mandate of e.g., the Directorate general KSDAE - KLHK. Provincial authorities lack capacity to address this, and the complex mediation between policy levels and economic demands (competing objectives, driver pressures) has resulted in low adoption of biodiversity into FMU processes. In the alternative, the project will enable mainstreaming biodiversity into FMUs covering a total of 277,130 ha. This includes 11 FMUs, each receiving US$385,000 in Indonesian government funding, resulting in US$4,235,000 in aligned co-financing for FMUs that incorporate biodiversity and restoration of degraded land objectives through GEF incremental support, along with additional means to implement the plans via EBF and other project partners, and mobilizing additional private sector investment. The project will demonstrate how this can be replicated across more FMU processes in Indonesia.

The *Strategic Plan of Directorate General of Nature Resources and Ecosystem Conservation (KSDAE) 2020 - 2024* was adopted in September 2020 through DG regulation No. P6/KSDAE/SET.3/REN.0/9/2020. The DG Conservation is challenged by several pertinent issues such as, forest loss and forest degradation within protected area, illegal wildlife trade especially on highly threatened species, and human-wildlife conflict. Several KPIs notable as relevant to the purpose of this study are: a) 70-million-hectare forest area verified as high biodiversity value sites through a

participatory method, to which 43 million hectares are outside the existing protected area network; b) 55 essential ecosystems (KEE) with improved management effectiveness; c) 1,000 entities carrying out protection and utilization of rare species and its genetic diversity; d) one alternative biodiversity conservation funding mechanism; e) 15 priority natural tourism destinations; f) 100 Non-Nature Tourism Entities Utilizing Environmental Services.

KSDAE?s Directorate on Essential Ecosystems has the national mandate to implements programs, as per the 2020-2024 Medium-Term Economic Development Plan (RPJMN) which identified the potential for ?ex-situ? biodiversity conservation and sustainable utilization in over 43 million ha outside the national protected area system. In preparation to its implementation the Ministry of Environment and Forestry directed KSDAE to conduct the detailed *National Inventory and Verification of potential high biodiversity value areas* (reference to KBAs ? see previous explanation) and which resulted in detailed data for 8 million ha ecosystems in 2021; with follow up inventories to be conducted the coming years through recurrent government funding. This represents a modest baseline program to Component 1 of the proposed GEF project.

The area of KBA identified for the three targeted project Provinces amount to over 1 million hectares, to which a total of US$35,237 has been made annually to the provincial branch offices of KSDA for the 3 provinces towards conducting additional and more detailed inventories and (ex-situ) conservation planning work.[62]62 To maximize effective use of these modest government resources compared to the 1 million ha targeted for better biodiversity conservation outcomes, the GEF proposal seeks to augment this with additional funding, to provide technical assistance as well as to focus and link the work with identified mitigation of main drivers of biodiversity loss in the five landscapes, including through development of highly-biodiverse agroforest systems, species conservation programs and habitat restoration and protection.

The national program by Ministry of Environment and Forestry including specifically its Forestry and Environment Instruments and Standardization Agency/BSI-LHK (previously Forestry Environment Research Development and Innovation Agency/FOERDIA) is running national research, development, and implementation programs on conservation of natural resources ? including biodiversity, sustainable forest management, forest products processing, social and economic policies of forestry and environment and climate change. These activities are supported by recurrent state budget of and other development grants including GEF-6 & 7, ITTO, ACIAR, AFOCO and international research institutions such as CIFOR and ICRAF with current total allocation of USD 38,304,504 annually. BSI-LHK ensures standards and monitoring of aspects related to forest sustainability, environmental health, and community welfare in the utilization of natural and forest resources, by increasing the quality of human life in national forest programs (e.g. social forestry, bamboo agroforestry, protected area management, ex-situ conservation).

Thematic baseline programmes this project will align with and seek to build upon:

Strengthening of Social Forestry in Indonesia (SSF) is funded with US$109 million via the World Bank, of which $14 million is from GEF (GEF ID 9600), implemented between 2020 ? 2025. This programme seeks to strengthen policy and institutions to make progress on Indonesia?s social forestry targets, and support community capacity, piloting specific schemes and developing tools for scaling. Pilots cover 300,000 ha in 11 FMUs in: South Lampung District, Lampung Province; Lima Puluh Kota District, West Sumatra Province; Dompu, and Bima Districts, West Nusa Tenggara; Sigi District, Sulawesi Tengah; and West Halmahera District, Maluku Province. The geographic reach is beyond State Forests to also include private lands, for example, technical assistance for harvesting and managing private and community-owned forests. the SSF will support the MoEF in developing and harmonizing the relevant national policies, regulations, and procedures to expedite implementation of the GOI?s Social Forestry Program. Also, the project seeks to strengthen the policy framework for decentralized fiscal transfers, including, for example, through the Revenue Sharing Fund for Reforestation and Village Fund mechanisms. The project would support the Ministry of Finance (MoF)

and the Ministry of Villages Development of Disadvantaged Regions and Transmigration (MOV), to facilitate the incorporation of social forestry as one of the key activities eligible for receiving future relevant DBH and Village Fund financing. This proposed project will likely benefit from the investments in institutional strengthening ranging from national level to provinces and even local levels; the establishment of village associations (*lembaga desa*) and farmers groups; and pilots developed on land tenure and use rights to village associations, farmers groups, and communities.

Forest Programme III ? Sulawesi, funded by Kreditanstalt f?r Wiederaufbau/ Entwicklungsbank (KfW) for US $14 million, implemented between 2015 ? 2023, has developed capacity and agroforestry demonstration plots that this project can build upon. The project, which has thematic significance to the GEF project, operates in a different Province in Sulawesi from this proposed GEF project. The project implements biodiversity and watershed conservation within the framework of the national REDD+ strategy in Central Sulawesi?s Lore Lindu National Park, and surrounding areas. There is research from the project that could pertain to this GEF project, in the areas of research on biodiversity conservation and climate change, capacity development with government agencies, and strengthened law enforcement for forest and biodiversity protection. The project has sought to increase effectiveness of conservation forest management and biodiversity conservation efforts outside PAs (though the project is mostly in Loru Lindu NP). Biodiversity monitoring has been developed (forest stand and key-species), and an agroforestry pilot (400 ha of conventional mono-culture cocoa plantations shifted to mixed agroforestry system in 20 villages). This GEF project will seek lessons learned from the pilots. The project is overseen by the Directorate of Conservation Area Planning (RKK) under the Directorate General of Natural Resources and Ecosystem Conservation (KSDAE), and one of the implementing units is the Sulawesi Social Forestry and Environmental Partnership Center (BPSKL).

Forest Programme IV (Watershed Mamasa/Sulawesi), funded by the Kreditanstalt f?r Wiederaufbau/ Entwicklungsbank (KfW) for US $24 million between 2019-2026, is an on-going thematic baseline project. The primary purpose of the project is to complement the 126 MW Bakaru II Hydroelectric Power Plant program, supported by KfW. Thus, the project is in the Mamasa watershed, a catchment area requiring restoration at the outlet of the Bakaru Project, and also including the Gandang Dewata National Park (TNGD) area. Thus, the project seeks improved watershed management (in the Mamasa Watershed) with reduced sedimentation indicators, strengthening forest management in selected FMUs at project sites. The increased effectiveness of FMU management and community empowerment is of interest to this GEF project, though implementing in different landscapes and FMUs. Further, the capacity-building of the Forest Programme IV with the South Sulawesi Natural Resources and Ecosystem Conservation Center (BBKSDAE) could be of aligned benefit to the GEF project.

Forest Investment Program I (FIP I): Community ? Focused Investment to Address Deforestation and Forest Degradation, by the Asian Development Bank, invests US$ 17 million to support REDD+ implementation in Sintang and Kapuas Hulu District, West Kalimantan Province (2016 to 2022). Project outputs that relate to this GEF project include agroforestry systems in 1,880 ha, assisted natural regeneration on 6,000 ha in select FMUs, community-based forest fire management on 106,576 ha, community-based forest management on 17,000 ha, and ecotourism as an incentive to protect forests. Another one is fiscal policy and fund allocation between national level and sub-national levels, but the primary activity is quite different from the proposed GEF project as UNDP is utilizing these FIP funds to define the benefit-sharing mechanism for West Kalimantan so that it exists when Green Climate Fund (GCF) releases Performance Based Payment (RBP) for REDD+, as West Kalimantan is a target location for the RBPs. Thus, the fiscal policy portion of the project has less applicability to this project, yet it will seek lessons learned from the project components that are relevant to our field interventions (particularly the agroforestry and assisted natural regeneration activities).

BioCF plus-ISFL Jambi Sustainable Landscape Management Project (Pre-Investment and Investment Phase), implemented between 2020 ? 2026, is funded by the World Bank at US$13 million, plus $5 million in additional investments, which is hoped to also enable an Emission Reduction Payment Agreement (ERPA) as part of the BioCFplus ISFL Indonesia Program, projected to include up to US$70 million in results-based payments for verified ERs. The Project aims to reduce land-based GHG emissions in Jambi Province, through strengthening policy and institutions, implementation of

sustainable land management practices, and results-payments distributed in accordance with the agreed-upon benefit sharing mechanism. The geographic focus is Jambi, with a core objective of strengthening provincial governance institutions for effectiveness in implementing REDD+ objectives at the Provincial level (which was also identified as a key underlying driver of forest loss in Jambi). The institutional strengthening and cross-sectoral coordination the project will engage to improve action to address primary drivers of emissions from land use in Jambi should offer transferrable lessons learned for other Provinces facing similar challenges. Though the focus on peatlands does not pertain to this GEF project, the capacity building provided for local stakeholders in identifying and improving management in priority HCV, HCS, or KEE areas, including with adat communities, are relevant to this GEF project. There also appears to be a FMU strengthening component, which may have lessons learned to share with the GEF project. The 150 village groups expected to benefit from the project in the areas of agriculture, plantation, and agroforestry intensification and diversification, and value chain development (most related to palm and rubber production) are of interest to the GEF project, as Bio-CF seeks to introduce new financing mechanisms in Jambi Province, with provincial government, working through Bappeda and Parliament, to develop a provincial regulation (*Perda*) for green investment. This model may be transferrable to the Provinces serviced in the GEF project.

Strengthening Forest Area Planning and Management in Kalimantan / KalFor, funded by GEF via UNDP, invests US$8.6 million (plus $50 million in co-financing) in the Heart of Borneo between 2017-2025. The project intends for develop a framework to maintain the forest, biodiversity and ecosystem functions, of Kalimantan?s lowland and montane areas to compete with the growth and development of the estate crop sector, linking national and provincial (West, Central and East Kalimantan) government levels. The project design has similarities to this GEF project in pursuing an integrated package of co-operation including estate crop dialogue platforms, forest safeguarding plans, identification of priority areas for protection from estate crop agriculture (no go areas), enhanced mapping and demonstration of approaches?including regulatory and incentive-based ones?to delivering change in line with such plans. The project?s process of pursuing OECM designations in partnership with local communities has proven effective so far, and is a model KLHK believes holds potential for other landscapes such as those in this GEF project. The Land Suitability and Risk Indicator Mapping Process may provide a methodology that would be applicable to the planning envisioned in this GEF project. The project is also developing innovative ways of using financial incentives (and eliminating disincentives), designed to help reduce deforestation and forest fragmentation driven by estate crop development, in four districts in Kalimantan. Those may be replicable in the landscapes this GEF project targets.

Sustainable Farming System in Asian Tropical Landscapes (SFITAL) Program, implemented by World Agroforestry Centre, covers multiple countries, but has a pilot on sustainable cocoa management in North Luwu Regency, South Sulawesi Province. Partners include the International Fund for Agricultural Development (IFAD) (providing funding); Mars, Incorporated and Rainforest Alliance?UTZ. The project seeks to apply sustainable agricultural management systems in entire landscapes rather than in segregated and differently administered and managed areas. Of relevance to the GEF project are the direct interventions with cocoa growers, in a landscape north of where the GEF project seeks to work, yet linked value-chains for cocoa (a major driver of forest clearing and land degradation historically, yet holding potential for more sustainable and biodiverse agroforestry). The GEF project will seek to learn from research and interventions seek to create partnerships, and conduct landscape planning towards sustainable agriculture and value chains at district level. A key output sought is a district-level sustainable cocoa development roadmap.

Provincial non-GEF Funded baseline programs:

East Nusa Tenggara (ENT): The Governor signed a Governor Decree on establishment of a collaborative management forum for KEE in Flores (GD No.267/KEP/HK/2020) to ensure that areas outside protected areas that are of high biodiversity importance are managed as Essential Ecosystem Areas (or KEEs) and allocated $4,2M to achieve the objective over the coming years.

The Indonesian Ministry of Environment and Forestry, with a support from Germany?s BMZ conducted a feasibility study in Sikka district for Forest Programme V, a Social Forestry Support Programme, to harmonize rural economic development with the reduction of greenhouse gas emissions and biodiversity conservation through sustainable forest management. The Government of Indonesia allocates approximately $7M per year to support the work on Social Forestry Program across Indonesia.

Environmental Bamboo Foundation has worked with communities in NTT since 1993 on bamboo as an environmental and economic solution for rural communities. More recently, EBF has established 40 bamboo villages in NTT, supporting bamboo-agroforestry systems over at least 40,000 ha and livelihood improvements, based on a larger landscape-scale conservation vision. The Province of NTT committed seed financing for nurseries, planting and working with women?s groups to propagate bamboo.[63]63 The MOU between the Provincial government of NTT and EBF has just been signed by the Governor of NTT and valid for 5 years (2021-2026) that allows EBF to work with the Province on the program formulation, budgeting process and policies, which falls under the forestry and village development sectors. In 2021, The provincial development planning agency (Bappeda) and respective agencies (*dinas*) have agreed to integrate bamboo agroforestry into the workplans of forestry and village development sectors. Related to this, the Bamboo Agroforestry Village Campus has been established since 2021 in Ngada Regency, which serves as the centre of excellence providing technical assistance to 200 bamboo village communities in NTT, such as through the development and implementation of bamboo field school curriculum and providing technical assistance in bamboo production in multi-species agroforestry systems over an estimated 400,000 ha. Indonesia?s *National Bamboo Strategy* (close to ratification in 2023) seeks to support this perennial grass useful for the conservation and restoration of critical lands and watersheds, the optimisation and application of traditional bamboo agroforestry systems, while also recognizing the economic potential of bamboo for rural livelihoods.

South Sulawesi, the Governor has an annual allocation of $9M to support the implementation of 16 Forest Management Units under its administration. The 16 FMUs are responsible for FMU management planning and business development, as well as day-to-day forest management at the grassroot level.

Burung Indonesia has worked extensively in the Province of Gorontalo to protect threatened tropical forests through ?Forest of Hope Program (Program Hutan Harapan)? since 2009, and more recently has received $100,000 annually through IKI funding for working with communities adjacent to Panua Strict Nature Reserve. Together with the Forest Management Unit (FMU) Region III Pohuwato, Burung Indonesia has facilitated the development of eight Social Forestry concessions, five of which have received business permits from the Ministry of Environment and Forestry covering an area of 2,085 ha. The permits will allow 3,479 families, who are members of forest and village farmer groups, the right to manage and use the forest in a sustainable manner including in support of bird conservation.

Sumba: World Vision, with funding from the Government of Australia, implemented the Rural Economic Development Project (IRED) between 2015-2020 in Kecamatan Haharu, East Sumba Regency. The project trialled, then expanded, Farmer Managed Natural Regeneration (FMNR) alongside other relevant agroforestry systems to help farmers regenerate degraded farmlands, increase crop yields, improve product quality, enhance market access and boost household income. About 5,000 hectares of land were restored or reforested, using FMNR pruning (locally, *palotang*) demonstration plots where communities learned about FMNR, tree plantations and other low-cost, sustainable farming and agroforestry techniques. The project also designed better water-harvesting and infiltration to increase soil moisture, monitored by local water committees. An ex-poste evaluation[64]64 found the focus on privately owned plots has limited full results of land rehabilitation but has positive implications for sustainability, as farmers control their own land and can see the results. It was found that on communal land, there is no certainty of harvest rights for group members who are not family of

the landowner, which reduces the work motivation of the non-family members. Targets for the adoption of *palotang* and water storage and management were met. However, the proportion of people adopting the full range of land rehabilitation practices reached only 25% against a target of 50%. Tree planting decreased over time, due to ICRAF?s engagement with seedlings only occurring in the beginning of the project (which did not match the farmer?s timing). The evaluation also measured a decrease in proportion of households propagating or planting trees compared to baseline activity. Household data did not report significant increases to cash income overall, and this is attributed to small-scale industry and markets for non-timber forest products not adequately being built during adequately the project. Community bylaws to manage water, fire, and livestock were put in place, and partnerships were strongest at the local level, demonstrating the community value of local land management. The concept of BUMDES was new, and though the project implemented a micro-finance approach, profits were returned to members rather than reinvested into business growth, which challenged sustainability of the farmer groups The lessons learned from the project will inform this project design in Sumba.

Private sector finance and impact financing in the land sector (agriculture and forestry):

In Indonesia, there are several impact financing platforms available, most of which are developed in collaboration with major international banks?for example the Tropical Landscape Finance Facility (supported by BNP Paribas (French)) and Agri3 (supported by the Rabobank (Netherlands)). In addition, there are smaller fintech platforms emerging, such as Crowde (see: *https://crowde.co/),* which provides farmers with access to microcredit. There are two main gaps in delivery of finance to the land use sector that these actors are seeking to fill: a) First, financing for activities in the relatively under-developed regions of Indonesia, such as ENT and Sulawesi, is a challenge, mainly due to investment risk and the lack of equity supplied by possible project proponents; and b) Secondly, de-risking investment opportunities through guarantees of higher risk investments, especially those sized US$5 million and under, which is a focus of TLFF by seeking to establish a fund (targeting potential investment opportunities in the US$1 to 5 million range). TLFF seeks to link the fund to a grant fund (providing grants to US$350,000) for potential high impact projects that will reduce impacts on forests, while enabling them to reach bankability (such as national Indonesian banks). This GEF project will work with local companies as well as village owned companies (BUMDes) to develop their capacity to access TLFF and other impact funds, providing them with access to technical assistance to meet international ESG standards, including biodiversity and social inclusion. UNEP also works with other international investors to establish similar funds targeting small projects in marginal areas in Indonesia. There is potential to mobilize an impact investment for South Sulawesi for bamboo-based shade-cacao agroforests. In addition there are some small scale voluntary carbon market carbon financing activities, which were maturing but are now halted to await the outcome of the GoI implementation of the regulation, "the Economic Value of Carbon," which introduced result-based payments, for initiatives that result in carbon reduction, as an instrument in the carbon trading mechanism, on top of the carbon tax that the Indonesian parliament passed in October 2021.

Linkages with other GEF and non-GEF interventions

This GEF project seeks to build upon lessons learned, institutional strengthening and capacity development, as well as applicable methodologies and tools from the following recently completed projects in Indonesia:
Investing in the Komodo Dragon and other globally threatened species in Flores (IN-FLORES GEF Project ID 10728) project seeks to develop OECMs in terrestrial areas, likely building on OECM approaches pioneered in the Kalfor Project in Kalimantan. The project is working with the Directorate General of Natural Resources and Ecosystem Conservation (KSDAE), which is responsible for biodiversity conservation in Indonesia, so highly applicable to this project. The project will develop and apply of biodiversity-friendly guidelines in forestry, tourism, fisheries, agriculture and other-related economic activities can help promote new models that can be applied in other locations as well. Thus, this project will review and adapt those as appropriate. The project is also looking at innovative finance models which may be of direct relevance to this project.

Enhancing the Protected Area System in Sulawesi (E-PASS) for Biodiversity Conservation (GEF Project ID 4867). UNDP-GEF. This project commenced in 2012. The project purpose is to strengthen the effectiveness and financial sustainability of the Sulawesi PA system to respond to threats affecting globally significant biodiversity. The PA network in Sulawesi, is characterised by low levels of management effectiveness and the PAs are not adequately distributed across the landscape to properly represent the island's key terrestrial ecosystems. The project sought to increase management effectiveness of the PA system in a way that is integrated into the wider landscapes. This project is relevant with the proposed project in relation to strengthening PAs, and the areas adjacent to PAs, and involving local communities and stakeholders.

*Forest Programme II (REDD+) - Biodiversity Conservation and Integrated Watershed Development within Indonesi*a - German REDD+ Programme via Kreditanstalt Fur Weideraufbau (KFW), funded between 2014-2022 with US$21.9 million. Efforts focused on how to stem deforestation, and implement REDD+. The FORCLIME programme operated since 2011 in three provinces on Kalimantan as an example to see which methods are best suited to stop deforestation. The FORCLIME programme?s activities supported the national strategy for developing social forestry. This project will benefit from those investments by KfW in establishing the wide scope for social forestry. The programme worked with 77 villages covering 460,000 ha in Kalimantan, and initiated joint land use planning, setting rules for land use, defining village borders and established areas for reforestation. Community monitoring to detect and prevent illegal logging has been a key investment. This project will draw upon lessons learned, recognizing the geographic differences, but thematic similarities, particularly on social forestry, land use planning, addressing drivers, land rehabilitation and community monitoring.

USAID LESTARI project ? funded by the US government between 2015 ? 2020, total amount unknown. The goal was to reduce GHG emissions and conserve biodiversity in carbon rich and biologically significant forest and mangrove ecosystems. At the national level, LESTARI?s main counterpart was the Ministry of Environment and Forestry Directorate of Conservation Areas. Key subnational partners included forestry agencies in the provinces of Aceh, Central Kalimantan and Papua. LESTARI?s key outcomes included improved land use governance, enhanced protected areas management and protection of key species, sustainable private sector and industry practices, and expanded constituencies for conservation among various stakeholders. Of specific relevance to this GEF project, there are a number of project outcomes that this project will benefit from, and methods and tools that are transferrable. The project had high success rates with forming multi-stakeholder initiatives, bridging between local communities and local and provincial government by fostering participatory, inclusive, and transparent governance practices. LESTARI created ten public-private partnerships (PPPs) promoting Low Emission Development Strategies (LEDS). This project will seek to learn what practices led to success. The project also had great success with anti-poaching efforts. With regards to improved forest management with FMU?s, LESTARI has lessons learned that can be adapted to the GEF project on improved institutional capacity with FMU authorities at the landscape level, though training and forest planning, as well as forms of co-management established with local communities and local monitoring. The models developed to secured rights for land access and management through social forestry schemes in Aceh and Central Kalimantan may be transferrable to the GEF targeted landscapes. There are also useful models developed on co-management agreements with local government to protect traditional forests from deforestation. The policy strengthening LESTARI invested in benefits this GEF project, as 30 national and sub-national public policies introduced addressing climate change and/or biodiversity conservation. The project also demonstrated effectiveness in mainstreaming recommendations and LEDS into Provincial and District Spatial Plans (RTRW), Provincial Development Plans (RPJM) and Agency Strategic Plans (Renstra).

Strengthening Forest Management Unit for Sustainable Forest Management ? implemented by FAO between 2016-2019 with US$280,000. This project focussed on building capacity of the National Agency for Extension and Human Resources Development (BP2SDM) and their related centres, in particular the Centre for Extension and Centre for Education and Training (CET), through piloting of activities in two Forest Management Units (FMUs), in order to strengthen FMU human resources and

empower local communities. This GEF project will seek to apply these lessons learned in the planned trainings with FMU managers.

Development of timber and nontimber forest products? production and market strategies for improvement of smallholders? livelihoods in Indonesia (KANOPPI (2012-2016) and KANNOPI-2 (2017-2021) ? funded with US$1.3 million for KANNOPI-1 and US$1.7 million for KANNOPI-2 by Australian Centre for International Agricultural Research (ACIAR). The funding supported the partner organizations ICRAF, CIFOR, MoEF-FOERDIA/BLI, University Mataram, University Murdoch, WWF, the Farm Forestry Consortium and Thread of Life. EBF had an activity implementing role in KANNOPI-2. The project sought to align policies on landscape management so that barriers to developing timber and NTFPs value chains are removed. Other outcomes this GEF project benefits from are the research outputs on smallholder agroforestry, including agroforestry innovations, and markets for timber products and NTFPs in Indonesia, and quantified economic and environmental benefits of integrated timber and NTFP production systems, which created evidence for investment in agroforestry development.

Additionally, it would benefit from the ongoing GEF projects, ?the GEF 6 IAP - *Strengthening Sustainability in Commodity and Food-Crop Value Chains, Land Restoration and Land Use Governance through Integrated Landscape Management for Multiple Benefits in Indonesia* (UNDP, FAO)? and the ?GEF 7 FOLUR -*Strengthening Sustainability in Commodity and Food-Crop Value Chains, Land Restoration and Land Use Governance through Integrated Landscape Management for Multiple Benefits in Indonesia* (UNDP, FAO), respectively. Albeit related to other targeted commodities, the project will be able to build upon the enhanced expertise and programming with central government, updated policy decisions, piloted finance mechanisms and improved policy developed as part of the GEF 6 as well as the evolving GEF 7 projects - which both are sustainable commodity driven yet adopting an integrated landscapes approach, supported by strengthened national policy and coordination, as well as application at local jurisdictional level. In addition to their application of integrated landscape planning based on multi-sector analysis, these project are particularly useful for the present project with regards how they developed practical ways of partnership with the private sector, how to secure finance for sustainable commodities - both private and public sources, as well as how they approached in an effective way the incorporation and farmer support systems to a large numbers of low-production small-holders in the contact of local government jurisdiction, programs and co-financing support (note: several of these approaches have already been considered and incorporated in the present project design).

The current policy and institutional environment:

Indonesia has applicable legal frameworks at Central, Provincial, and local levels that informs the conservation and use of biodiversity, sustainable land management and addressing land degradation.

Key policy regulatory frameworks for biodiversity at the Central (National) level:

Presidential Instruction no. 1/2023 concerning Mainstreaming Biodiversity Preservation in Sustainable Development was adopted in January 2023. All relevant levels of government, local communities and private sector must be engaged in aligned action, to mainstream biodiversity across sectors. The instruction calls for the formulation of sectoral development strategies and planning in regions by considering the potential and sustainable use of biodiversity which ensures balance between conservation of biological diversity, ecosystems, and economy. The Instruction tasks agencies with specific roles to fulfill the Presidential Instruction (Inpres) KLHK is tasked with improving management inside and outside the forest area to improve biodiversity, and other key tasks. The instruction tasks the Ministry of Home Affairs to carry out key tasks with regional development budgeting and planning, and by Province and regency and city. The Ministry of Agrarian Affairs and

Spatial Planning also have key roles, and BAPPENAS is tasked with integrating biodiversity into long-term and medium-term development planning. The Attorney General is tasked with improving law enforcement for biodiversity, and to carry out prosecution of criminal acts related to biodiversity by optimizing laws and regulations. National Police are tasked with activities. Governors are asked to compile biodiversity management plans at provincial level, and ensure implementation through regional planning documents and regional income and expenditure budgets. Governor?s report on the progress of biological diversity conservation implementation to the Minister of Home Affairs and Minister of Environment and Forestry. Regency heads also make plans. Minister of Finance and Minister of BAPPENAS tasked with synchronizing budgeting and planning to carry out activities at national, Provincial and Regency levels. Funding is charged to state revenue and expenditure ministries at national and Provincial level agencies. Therefore, this project must work with all the above agencies to fulfill the goals of the Inpres, as per the specific project outcomes.

Indonesia's strong commitment to maintaining biodiversity is indicated among others through the ratification of global biodiversity frameworks such as the CBD Convention (Law No.5 / 1990), the Cartagena Protocol (Law No.21 of 2004), and the Nagoya Protocol (Law No.11 of 2013). These regulations become the legal umbrella for biodiversity management and operationalized through Indonesia Biodiversity Strategic Plan (IBSAP) to achieve Aichi target and aligning biodiversity priorities in mid-term development plan (2020-2024). A key goal in the IBSAP is to maintain 43.2 million hectares of forest cover for wildlife habitats.

Other key elements of the legal and regulatory framework for biodiversity at the Central (National) level include: Strategic Plan of the Directorate of Biodiversity Conservation 2020-2024, Ministry of Environment and Forestry; Climate Resilience Development Policy 2020-2045; PermenLHK No. 9/2021 on Social Forestry Management; PermenLHK No. 18/2020 on Protected Flora and Fauna; Law No. 32 of 2009 on Environmental Protection and Management; Law No. 27 of 2007 on Management of Coastal Areas and Small Islands; Law No. 26 of 2007 on Spatial Planning; Law No. 4 of 2006 on Ratification of the International Treaty on Plant Genetic Resources for Food and Agriculture; Law No. 32 of 2004 on Regional Government; Law No. 41 of 1999 on Forestry; Law No. 5 of 1994 on Ratification of the United Nations Convention on Biological Diversity; Law No. 12 of 1992 on Plant Cultivation System; and Law No. 5 of 1990 on Conservation of Biological Natural Resources and Their Ecosystems.

Key policy / regulatory frameworks for biodiversity at the Provincial level:

Key Elements of the Legal and Regulatory Framework for Biodiversity at the East Nusa Tenggara and South Sulawesi and Gorontalo Provincial Levels include: Strategic Plan of the East Nusa Tenggara Provincial-level Division of Natural Resources Conservation 2020-2024; Strategic Plan of the South Sulawesi Provincial-level Division of Natural Resources Conservation 2020-2024; Strategic Plan of the Gorontalo Provincial-level Division of Natural Resources Conservation 2020-2024. The Medium-Term Development Plan (RPJMD) of Gorontalo Province sets a direction of development policy to increase environmental management and protection, seeks to promote conservation for biodiversity and ecosystems, watershed management and rehabilitation in and outside of Forest Areas, optimized forest utilization, and increasing human resources for forestry.

Key policy / regulatory frameworks for land degradation:

Indonesia is a party to the *United Nations Convention to Combat Desertification (UNCCD)* and has ratified the Convention by Presidential Decree No: 135/1998, dated 28 August 1998. However, the implementation of the UNCCD in Indonesia is still considered lagging behind UNFCCC and UNCBD, but it gained new momentum in Indonesia when the Land Degradation Neutrality (LDN) target Setting Program - under UNCCD support, analyzed LD trends in the country and suggested draft strategies towards reducing LD and achieving LDN[65]65. However Indonesia has not yet agreed on a national unified definition nor unified legal basis on land degradation. The report, whilst providing a summary of land degradation statistics and its causes, is somewhat generalized and lacks clarity with regards National Targets as suggested by the UNCCD- LDN program. In summary, degraded land in Indonesia was 24.3 million ha in 2013 (MoF). It was reportedly caused mainly by inappropriate land utilization, no soil- and water conservation measures applied in areas susceptible to severe erosion, sedimentation, and the degradation of water services (quantity and quality) in the downstream areas; yet omits in these statistics the role of deforestation due to commercial and non-commercial logging, conversion to agriculture and plantation etc. There are 3 provinces identified as Indonesia?s land degradation hotspots. These areas are East Nusa Tenggara, East Kalimantan, and North Sumatra Province. East Nusa Tenggara is best known as one of the driest areas in Indonesia, with regular drought impacts. Land and forest net rehabilitation has been targeted by government at 5.5 million ha in 5 years. The report also states the potential to reduce LD and achieving LDN over an area of 27.5 million ha by 2040 in areas now considered degraded/critical lands in Indonesia. It means that LDN could be achieved in Indonesia in 2040 with assumption there is no additional degraded land (or less than 3.2 million ha during 2015-2040).

Some of the GEF project-relevant Strategies indicated in the National LDN Report include: 1) promotion on site forest management through forest management units, divided into 3 categories namely conservation, production, and protection Forest Management Unit system; 2) public support and participation are critical for applying and implementing methods of prevention and rehabilitation control; 3) developing a partnership with local institutions and community and non-government organizations for an effective implementation of land degradation control; 4) developing the capacity to be better consolidated, manage and deploy existing financial resources (APBN, APBD) and strengthen the capacity to negotiate with international and national agencies for increased financial support; 5) full participation of representative community should be engaged in all level activities (planning, implementation, monitoring, and evaluation); 6) addressing land tenure conflict; and 7) awareness raising.

Additionally, *Sustainable Development Goal* (*SDG) Target 15.3* includes the LDN principle, stating, ?*By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world*? (UN 2015) which subsequently integrated into the UNCCD process during the 12th Conference of the Parties to the UNCCD (COP 12). Government Regulation No. 26/2020 on Forest Rehabilitation and Reclamation has shown the Government of Indonesia?s commitment to take more active role in combating land degradation agenda. Other Legal and Regulatory Framework for Land and Forest Rehabilitation at the

national level: 1) Permen LHK No. 105/2018 on Procedures for Implementation, Supporting Activities, Providing Incentives, Developing and Monitoring of Forest and Land Rehabilitation Activities; 2) Government Regulation No. 23/2021 on the Forestry Implementation; 3) Permen LHK No. 7/2021 on Forestry Planning, Changes in the Designation of Forest Areas and Changes in the Functions of Forest Areas, and Use of Forest Areas.

Key policy / regulatory frameworks for forest management:

Forest Management Unit planning, implementation and investments: A key gap identified in Indonesia?s forest governance is the inability thus far to successfully implement forest governance reform. In response, Indonesia has promoted more inclusive and decentralised management of forests through the system of Forest Management Units (FMU ? or Kesatuan Pengelolaan Hutan - KPH in Bahasa Indonesia) including inclusive forest management planning and business plan development and implementation. In May 2012, Indonesia's forest area was divided into 600 KPHs, covering 130,680,000 ha of forest land legally classified, and divided into 530 KPHs in production and protection forests and 70 KPHs in conservation forest.[66]66 In the project area, there are 6 Kesatuan Pengelolaan Hutan Lindung (KPHL) which cover 149,777 ha of protection forest, and 4 Kesatuan Pengelolaan Hutan Produksi (KPHP) which covers 68,523 ha of production forest. KBAs cover a significant portion of the KPHs, but the KPHs were not established with the objective of biodiversity conservation, and do not contain clear provision for inclusion of this management objective in planning. The Government of Indonesia identifies the need to bring biodiversity consideration into the management of forest areas.[67]67 Yet it is Provincial governments that have jurisdiction to operationalize proposals for improved management of biodiversity outside protected areas, yet this has only sparsely been applied in Indonesia.[68]68

The KPHs themselves need to interpret policies and regulations from different levels of governments, manage ambiguity, negotiate, bargain and exercise discretion to implement the KPHs in local contexts. However, they often lack the means and capacity to do so.[69]69 There is a need to address this gap, to facilitate inclusive, multi-stakeholder and cross-sector input, to consider forest utilization that safeguards biodiversity, respects traditional community interests and livelihood needs, and provide for integrated landscape management.

Thus, although the Government of Indonesia is beginning to identify biodiversity values outside protected and conserved areas,[70]70 there is still more work to be completed to identify those priority areas, and then to develop the capacity to deliver the programmatic responses, for implementation and steering aligned investments. This requires addressing policy incoherence, and the lack of coordination between Central government, Provincial and local governments to align and coordinate on conservation and livelihood priorities. Provincial KSDA?s are often at this interface of policy conflicts between Central Government and Local Government, such as in the context of regional development programs. If land management objectives and even status of conservation areas are not clear, conflicts go

unresolved, and this is exacerbated by weak law enforcement and lack of awareness of the benefits of ecosystem services in these contexts.[71]71

Social forestry: Social forestry is a new mechanism for decentralized forest management which holds great potential to safeguard biodiversity, if managed for this purpose. Otherwise, there may be great threat to see significant amounts of biodiversity-rich forest area subject to increased harvesting pressure. In the identified project area, 30% of the proposed social forestry area is in protected forests (Hutan Lindung) and 39% of the proposed social forestry area in the project area is in KBAs. Social forestry (perhutanan sosial) is individual or community-based forest management by local or adat communities to improve their welfare, and improve social, economic and environmental outcomes through agroforestry and forestry practices. Of benefit for biodiversity and adat rights, Social Forestry concessions provide a means to secure tenurial rights for adat people, thus helping to fulfill Constitutional Court Ruling No 35 of 2012[72]72 regarding customary rights to state forest lands. Both in Indonesia and around the pan-tropical regions, financing and support to secure adat people?s tenure rights is far from the scale needed. Between 2011-2020, only 11% of funding to projects on adat people?s empowerment explicitly advance tenure reform and security.[73]73 Though recognition of adat self-determination and land rights is growing, many cases of legal recognition still lack full authority for adat people to govern their lands.[74]74 Yet, forest, climate and biodiversity protection is strongest when adat people hold collective legal titles to their lands.[75]75 Though only 20% of Key Biodiversity Areas are covered by protected areas globally, those that do overlap show almost no engagement of adat people, with only 1.01% of these areas being managed by adat peoples and local communities, or are nationally designated as adat, local, or community lands.[76]76 Research indicates that ensuring tenure security and forest rights for the local communities is crucial, and is a far more important factor for successful outcomes than adding hectares to collaborative partnerships with inadequate or short tenurial access.[77]77 Adat Community Conservation Areas (ICCAs) are embraced by adat communities, the CBD and the IUCN as a way to recognize adat people?s governance for protection and conserved areas, as ?other effective area-based conservation measures (OECM).?[78]78

Social forestry schemes currently cover around 1.8 million hectares of forests (about 2% of state forests) in Indonesia. The Indonesian government has prioritised these schemes with a plan to increase social forestry areas to 12.7 million hectares.[79]79 Social forestry concession refers to the granting of access and limited tenurial rights for 35-year periods (which can be renewed) for individuals or communities to carry out community-based forest management. Social forestry schemes include a range of property rights and agreements, including village forests (Hutan Desa) which transfers the forest management rights from the government to the communities at the village level but withholds the ownership rights; forestry partnerships (Kemitraan Kehutanan) which provides cooperation

between local communities and forest authorities (government or private) in managing state forests; and customary forests/peoples? forests (Hutan Rakyat), which is the only social forestry scheme that transfers forest ownership rights, thus providing legal certainty and justice for adat communities to sustainably own and manage forests to secure their welfare. The options for schemes are vast. The granting of land access must be accompanied with capacity development to implement sound land management.[80]80

However, many proposed social forestry areas are either on degraded lands, which are less preferred by some communities, and of concern for biodiversity protection, include Key Biodiversity Areas. Given the leniency by which concessions could be granted under current law, across all forest types including Kawasan Konservasi, there is risk that significant areas of KBAs being further degraded over time, and social forestry concessions being granted for purposes that do not result in environmental, social and economic benefits for adat communities.

? The proposed alternative scenario with a brief description of expected outcomes and components of the project

No significant changes have been made with respect to the proposed alternative scenario and overall project structure (Section 1.3 in PIF), however, the PPG considerably refined the activities to achieve the desired outcomes. The detailed description of the outputs of each outcome is included in section 3.3. of the ProDoc.

Project rationale:

The alternative scenario under GEF7 will see a transformation in the awareness of biodiversity values and reduced land degradation, due to commitments to integrated conservation landscape plans (ICLPs), seeing direct linkages to livelihood improvements as a result, and increased knowledge about how habitat degradation and unsustainable land use impacts livelihoods.

To achieve these outcomes, the project designed approaches and components to address the above-mentioned drivers, root causes and barriers. The project rationale is to work with local communities, government and private sector through People, Public, Private Partnerships (PPPPs), to address pressures and build the alternative scenario. Building the alternative scenario is based first on collectively understanding and agreeing to the drivers and pressures, so that all stakeholders in the PPPPs have awareness of and agree to the interventions to address driver pressures. Commitments to address drivers of biodiversity loss will be directly connected to communities and stakeholders realizing the livelihood improvements.

Cross-sectoral and multi-sectoral planning will be undertaken early in the project, to align otherwise competing sectors towards shared outcomes. Analyses will be completed to further define the climate risks to agriculture and other livelihood sectors. For instance, in almost all project sites, there are increasing water demands by all key sectors, yet increasing climate impacts are reducing flow at key times of the year, increasing sectoral competition. All of the project sites contain the critical headwater catchments (and related forests) that sustain the productivity of landscapes below. Therefore, the PPPPs

become the vehicle to convene all the key central and provincial government agencies, regencies and communities, across sectors such as agriculture, forestry, water, energy, culture and crafts, and eco-tourism, as a basis for multi-sector planning and to forge common commitments. This forms the basis for lodging the ICLPs in the Medium-Term Development Plans and related sector plans.

Delivering on tangible livelihood improvements that are derived from the ICLPs and PPPPs is crucial in order for the project to succeed in changing behaviour. Initial scoping of the biodiversity-friendly business models in each of the 5 sites has yielded an initial list of products and partners who can assist to achieve them. These business models seek to link community-level producer groups to off-taker/buyers, in order to drive value to the producers, and also build their ownership and commitment. Importantly, the project is not seeking to increase commodity production flowing into the business-as-usual commodity trader/aggregator value chains. These value chains generally operate by delivering miniscule value to local producers, while traders and manufacturers benefit. Rather, the biodiversity-friendly business models identified so far will largely bypass traders entirely, seek to achieve higher production standards (geographic indication, organic) than business-as-usual commodities, and will be branded with Wallacea biodiversity to bring the story of their production to the markets and buyers. Agricultural commodity (e.g. cashew, coffee), non-timber forest products (e.g. forest honey, kenari, vanilla, bamboo) and eco-tourism models have been identified. Detailed business planning will be completed early in implementation. The business models will be activated starting within the first year of the PPPPs being formed and implemented, so that results are visible early on. Processing facilities, product transport, marketing, and market linkages have already been identified, as well as major product off-takers, which gives assurance already to the regional development banks that the business models are well on their way to being bankable.

Policy conformity

The design of the project has been validated in discussions with the Ministry of Environment and Forestry, involving all key Directorate Generals, as well as Provincial agencies, and down to Regency and village levels, in the PPG phase. The project contributes to the Government of Indonesia?s commitments to reduce greenhouse gas emissions and adapt to climate change, achieve the Sustainable Development Goals by addressing poverty and improving livelihoods, restore degraded land and forests, and safeguard its globally significant biodiversity.

Project goal and objective

To address the above-mentioned challenges and barriers, the proposed project aims to implement integrated conservation landscape plans based on ecological and spatial criteria to strengthen the mainstreaming and area-based biodiversity protection in landscapes identified by the government as Key Biodiversity Areas including under Protected Forest status, Production Forests as well as Conservation Forests under the Forest Management Unit scheme as well as forest under local management jurisdiction (APL), many of which contain proposed social forestry concession areas. Working with local communities the project seeks to build biodiversity stewardship and ?other area-based conservation measures? at landscape scales, through People, Public, Private Partnerships (PPPP), connecting commitments to address drivers of biodiversity loss to tangible investments in livelihood improvements through biodiversity-friendly business ventures such as bamboo and other NTFP agroforestry.

The Project objective is to protect biodiversity and reduce land degradation in Wallacea hotspot through landscape-based conservation action, sustainable land management, and livelihood benefits linked to conservation outcomes.

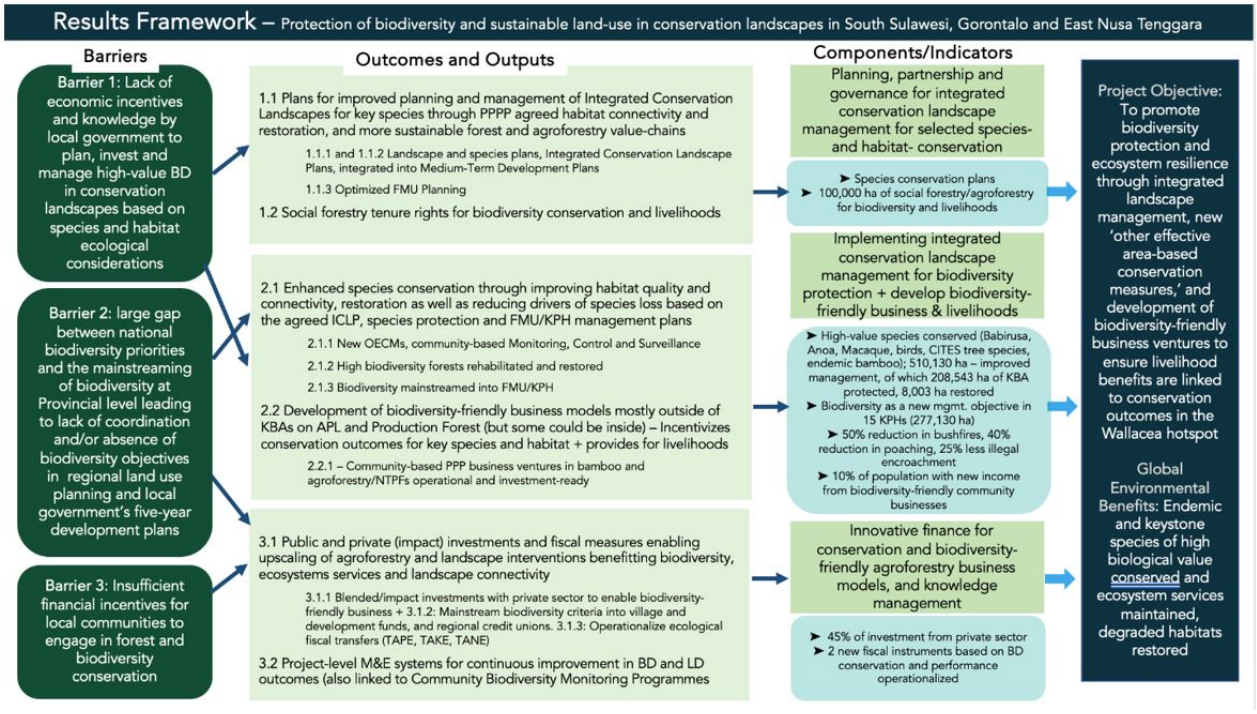
Intervention logic and key assumptions

The intervention logic is based on the assessment of the drivers of species habitat, deforestation and land degradation, the barriers, and assessment of what possible interventions can affect the drivers and barriers. Thus, interventions must reach the right actors, and the scale they operate at, and be feasible within the timeframe of the project. The project?s logical pathways are:

1. *Pathway 1*: This pathway advocates that an assessment of the drivers of ecosystem loss (both direct and indirect) and identification of response measures is completed, alongside (selected) species ecological /life cycle analysis and their habitat/ecological flows/needs as a planning basis for any area-based interventions. These two analyses inform integrated landscape planning as a means to identify what steps can be taken to address drivers across different sectors, while also developing more in-depth plans for each key species, and also how actions to promote livelihood outcomes helps address drivers and improve biodiversity for the selected species. This is done across the project landscapes, with a focus on protection and production forests (mostly in KBAs, but also outside them). These processes enable planning and zoning to solidify stakeholder commitment to biodiversity conservation and anchor the accessing of technical and capacity assistance to longer-term land management, stewardship and investments in alternative livelihood options ? combined with direct (impact) investments in biodiversity and forest habitat conservation and restoration.
2. *Pathway 2:* This pathway advocates that forging stronger integration between all levels of government that have an influence in governance of gap areas between KBAs/IBAs will increase likelihood of both policy coherence and related medium-term planning priorities across key sectors, which will increase the likelihood of enhancing ecosystem services and conservation of endemic species and species of high biological value and carbon sequestration.
3. *Pathway 3*: This pathway proposes that if the project invests in developing value-chains for biodiversity-friendly business ventures (including bamboo and highly biodiverse agroforestry) with communities in key gap areas between KBAs/IBAs, local people will derive livelihood benefits directly related to biodiversity conservation and improved land management practices. Thus, drivers of unsustainable land use will be addressed, and new finance modalities such as blending and sequencing financial support to producers can transform the incentives motivating land use in these Provinces.

The project results framework (Figure 7) asserts the overall goal of protecting biodiversity and promoting sustainable land use in the conservation landscapes, then articulates each of barriers the project seeks to overcome. The outcomes and outputs have been designed to address drivers and barriers, with project components, activities and indicators established to achieve the overall project objective, and performance measures to achieve protecting the GEBs.

Figure 7: Project RESULTS FRAMEWORK



The project's theory of change is based on the idea that by providing positive incentives for biodiversity and forest conservation, restoring habitats, and creating livelihood activities that promote sustainable stewardship, drivers of ecosystem loss and degradation can be reduced. Additionally, the project aims to strengthen the enabling environment, including governance, finance, and market access, to ensure long-term success and sustainability beyond the project timeline.

Beginning with a thorough situational analysis, the project assumes community willingness and stakeholder collaboration, setting a goal to mitigate degradation and promote conservation. Outcomes include heightened awareness, community participation, adoption of sustainable practices, and policy advocacy. Activities encompass capacity-building, pilot projects, and policy engagement. Outputs are measured in terms of trained individuals, forest area under sustainable management, and policy documents drafted. Ultimately, the project seeks to reduce degradation, enhance biodiversity, improve livelihoods, and build community resilience. Monitoring and evaluation ensure adaptive management to maximize impact and sustainability.

3.3. Project components and expected results:

Component 1: Planning and governance for integrated landscape conservation and reduced land degradation

Budget: GEF project financing: $ 2,301,500 **; Co-financing: $13,000,000**

This component develops a basis through planning, to then implement actions under Component 2, to reverse the primary impacts of biodiversity loss and land degradation in project area KBAs and IBAs? due to logging, illegal encroachment into forests for agriculture expansion and grazing (in ENT), also

those due to underlying drivers of poverty, lack of awareness of the value of ecosystem services and easy willingness to pursue short-term profit at the expense of forests, lack of awareness of income generation options that do not degrade the ecosystem, poor tenure rights, poor land governance most notably in Protected Forests - which are key to maintain habitat.

There is a need to slow the rates of degradation of key forests and wildlife habitat, which may increase as social forestry concessions are now granted in Protected Forests (and most so far lack biodiversity and conservation interests). There is a need to mitigate suboptimal land utilization, mainly from agriculture and animal livestock management in eastern Indonesia project sites, and the establishment of cash crop plantations in Sulawesi, through the development and implementation of Integrated Conservation Landscape Plans (ICLP) with communities and key stakeholders in the landscapes, develop conservation plans for species of high biological and/or conservation value, and development of methods to mitigate the biggest threats in these habitats (e.g. fire, poaching, etc.), and plans for biodiversity-friendly alternative livelihood opportunities.

A key partner in these efforts in NTT, South Sulawesi and Gorontalo are the DINAS (No 3. Department for Environment and Forestry at the provincial level) and BAPPEDA (planning) as well as the Ministry of Agriculture. A key technical and project partner is Burung Indonesia, particularly related to avifauna species and habitat in all the sites, and their significant presence and on-going project in Gorontalo. .

Outcome 1.1: Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon.

Outcome targets:

Target 1: Ecological habitat requirements and conservation action for (keystone) species identified through reports for two (2) Threatened species or one (1) fauna/flora group per landscape, focused on KBA/IBA sites

Target 2: Conservation plans for globally threatened or endemic species guide improved area-based conservation action: at least one (1) multi-species conservation plan in (5) landscapes include recommended action related to FMU, SLM and social forestry

Integrated landscape planning provides a mechanism to identify biodiversity values, and potential for land restoration alongside the current land uses that are exerting pressure on these lands. Integrated landscape planning also provides a forum for convening key stakeholders (communities, cooperatives, village and regency governments, forest managers) in a collective process of planning, leading to improved management strategies and plans. The purpose of this activity is to build the knowledge of drivers of biodiversity loss, knowledge of biodiversity values with key stakeholders, forge agreed solutions to reverse encroachment, poaching and fire pressures, and pursue livelihood options that will safeguard biodiversity values. It also forms the basis for the establishment of Public, Private, People Partnerships (PPPP) multistakeholder conservation partnerships, as a means to carry out participatory and inclusive planning and related agreements on management outcomes. Three outputs provide the planning basis for actions described under Component 2:

Output 1.1.1: Analysis of impact drivers to ecosystems, and identification of opportunities for landscape and species protection in Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), which

guide ecological and spatial context of restoration and habitat protection, measures to address drivers, as well as optimized investments for resilient landscapes and communities This output contains two activities which form a crucial basis for the Integrated Conservation Landscape Plans:

a) assessment of the drivers of ecosystem loss (both direct and indirect) and identification of possible response options and measures. An initial driver analysis was completed as part of the PPG and forms a spatially explicit basis to assess driver pressures, and net changes in forest cover in the project landscapes over the project timeline. The driver analyses included consideration of the political economy factors, particularly underlying drivers, which includes international investment for infrastructure (such as in Gorontalo), the profitability of export cash crops, and cultural practices of degrading land clearing;

b) Species ecological /life cycle analysis and their habitat/ecological flows/needs as a planning basis for area-based interventions. The focus will be on at-risk flora and fauna at each site, including endemic and migratory bird species. The project will support species baseline assessments (and update those that already exist, at site levels, such as for Babirusa and Anoa), develop management plans including associated monitoring programs, training and capacity building, and implementation of monitoring to be able to report on change in the status of the selected species at the mid-term review and project completion. This forms a basis to set targets for minimum ecological thresholds or ecosystem service functions (e.g., habitat integrity, genetic and seed stocks of endemic species, HCV forest areas, watershed functions, etc.). Landscape and species protection analysis in the KBA/IBAs and surrounding areas, to confirm priority species and locally specific conservation action, the needed ecological and spatial context of habitat protection and restoration, and optimised land-use investments for resilient landscapes and -communities.

Activities: Develop management plans, training and capacity building requirements to set targets for minimum ecological thresholds/ecosystem service functions; Landscape and species protection analysis in the KBA/IBAs and surrounding areas, to confirm priority species and locally specific conservation action, the needed ecological and spatial context of habitat protection and restoration, and optimised land-use investments. Detailed plans for restoration, including species, capacity, and longer-term management to ensure success; Further assess future climate change impacts; and Additional technical analyses as required.

Partners: Burung Indonesia; KLHK KSDAE, ASEFI, DASHL, LHK, KKHSG, PKSL; Provincial BBKSDA, Environment and Forestry, BAPPEDAs

Output 1.1.2 Five (5) spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating LDN and key habitat conservation targets, linked to government Medium-term Development Plans for alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3) : The above two analyses on drivers and species/habitat and ecological system requirements inform integrated landscape planning as a means to identify what steps can be taken to address drivers across different sectors, while also developing more in-depth plans for each key species, and also how actions to promote livelihood outcomes helps address drivers and improve biodiversity for the selected species. The target is to complete five (5) Integrated Conservation Landscape Plans ? ICLP (spatially explicit), which cover the entire project area of 510,130 ha. The ICLPs include prioritized recommendations for how to address drivers and threats, and identification of spatially explicit hectare requirements of key species habitat/landscape under improved conservation planning for their breeding, feeding or resting

requirements, of which 208,543 ha is in the already identified KBAs which lack adequate protection, 158,347 ha of Protection forest (most of which is in KBA but does not contain biodiversity as a management objective), 120,394 Production forest in or near KBA, plus 181,193 ha of Areas for Other Land Use (APL).

The ICLPs will identify high biodiversity value areas as Zone 1, defined as areas requiring OECM and greater biodiversity protection, and Zone 2 areas as those that are either a) of less importance for biodiversity but are important as corridor areas, and require improved forest management, and b) areas that do not contain GEBs and are suitable for bamboo-based and other agroforestry commodity and livelihood opportunities that are aligned with biodiversity objectives in the adjacent areas. The five ICLPs will be integrated into Indonesia?s Village Medium-Term Development (RPJMDes) and Provincial Medium-Term Development Planning (RPJMD), agreed to by District authorities, and bound by terms of PPPP multistakeholder conservation agreements ? including conflict management.

By aligning with the RPJMDes and RPJMD, the project also activates public finance (e.g., Dana Desa, others), to align sectors and create pathways to direct currently unaligned resources towards conservation. These resources are crucial to address the poverty alleviation aspects, which cut across a range of ministries. The strong Provincial support from Nusa Tengara Timor, including significant committed co-finance over eight years, sets the political will necessary to engage such a cross-sectoral process, and builds the framework for a process that will be replicable and scalable to the other landscapes and jurisdictions and beyond. Further, the villages (Desa) the project will engage are crucial for the linkages to village-level medium-term development planning (RPJMDes) and village Sustainable Development goals (SDGs Desa), which provides a means to measure performance at village, provincial and national levels.

Activities: Conduct FPIC with adat communities in project areas; consultation with Provincial, Kabupaten, Kecamatan and Desa levels (and all relevant agencies); build recommendations for policy/budget changes to overcome sector conflicts or build more aligned financing to support ILCPs; draft Integrated Conservation Landscape Plans;

Partners: Burung Indonesia; KLHK KSDAE, ASEFI, DASHL, LHK, KKHSG, PKSL; Provincial BBKSDA, Environment and Forestry, BAPPEDAs

Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit plans and boundary decisions, and management capacity established with partners under PPPP agreements (see 1.1.2) : Biodiversity conservation and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit plans and boundary decisions, and management capacity established with partners under the PPPP agreements, and to be based on the ICLP agreed. This will include bringing the ICLP spatial plans into the multi-stakeholder participatory processes within each KPH, conducting additional forest management planning, and integrating the biodiversity-friendly business plans into KPHs. This will involve close cooperation with KLHK?s KPH Unit, other KLHK DGs, provincial and district governments for implementation. The Directorate General of Nature Resources and Ecosystem Conservation (KSDAE) of KLHK recognizes the importance of innovative conservation partnerships and agreements to help extend its reach in areas of the country where its staff has limited capacity and mandate for implementation of comprehensive integrated ecosystem management approaches, particularly when incorporating areas outside the protected area network

and/or landscape level, which is under the jurisdiction of provincial governments (indeed as part of KPH system). These partnerships would involve both local communities, corporate sector, local government as well as NGOs and scientific institutions for support. However, significant areas of forest, including KBA/HCVF, is also under different local government status and authority. Thus, commitments that bring in different sectors, at provincial and local village government levels under a coherent approach is necessary and is currently lacking. Thus, this output seeks to ensure that globally threatened or endemic species conservation plans guide improved conservation landscape management, through FMU/KPH plans, which include sustainable forest management and social forestry. This outcome seeks to create provincial, village and landscape-level governance and guidance through key existing government mechanisms?medium-term development plans and forest management unit plans? to protect biodiversity and ecosystems services, restore key habitats and connectivity, as well as identify, budget for, and invest in sustainable practices in livelihood activities.

Outcome 1.2: Improved landscape management with conservation outcomes through secure local governance and tenure as basis for enhanced agroforestry value-chains in social forestry concessions

Outcome targets:

Target 3: 15 new social forestry concessions, integrating BD objectives; > 100,000 ha (as part of Core Indicator 4); >30% of concessions led by women

This outcome has just one *Output 1.2.1: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community welfare and more sustainable and productive agroforestry value-chains (bamboo, cacao, sugar palm etc.*. To achieve the Output, activities will focus on work with local communities, through the PPPP agreement process, and based on the ICLP, to promote traditional/adat tenure security, safeguard biodiversity values (including through integration of the species plans as per outcome 1.1) and link the communities? commitment to improved management to their accessing new investments and technical support to carry out plans for biodiversity-friendly livelihood business ventures. The project will support adat communities to participate and have capacity in integrated landscape planning and biodiversity-friendly business plans, specific to their sites, and assist them in their applications to acquire 35-year social concessions to enable these activities, both in Zone 2/sub-set (a) areas of Hutan Lindung in which the project will define OECMs to protect biodiversity values (and associated local stewardship ? see 2.1.1), and in the Zone 2/sub-type (b) areas that are deemed through ICLP to not have GEB values. As mentioned previously, with social forestry being proposed across 51% of the KBA areas, this is potentially about 26,151 ha that is at risk of being targeted for increased forestry operations unless provisions are negotiated with communities to pursue social forestry plans with a vision for biodiversity conservation, and work with them to define economic opportunities outside these areas, such as in APL and production forest. In summary, this outcome seeks to demarcate and secure tenure/land titles on a minimum of 100,000 ha of social forestry concessions for development - as part of Comp 2 and 3, of high-biodiverse agroforest systems as the basis for the biodiversity-friendly business models (which link the land stewardship commitments and tenure security to livelihood improvements) (see Comp 2).

Activities: Community consultation and addressing complex tenure rights issues, overlapping claim areas; land demarcation and boundary dispute resolution; consultation with all levels of government required to approve social forestry concessions; develop business plans for social forestry areas, as per

ICLP objectives; develop business plans for each biodiversity-friendly business model (all aspects, business viability, value chain development, off-takers, financing); develop capacity-building plan for biodiversity-friendly business models, required skills and training needs along with the sources and costs for providing these.

Partners: PT Talasi, Javara/Seniman Pangan; Kreologi; PT Royal Coconut, PT MIO, Wulang Pari Coffee, PT Agri Spice Indonesia, PT Bali Chocolate Factory, Karana Global; KLHK KSDAE, ASEFI, DASHL, LHK, KKHSG, PKSL; Provincial BBKSDA, Environment and Forestry, BAPPEDAs

Component 2: Implementation of the ICLP in alignment with local governance, impact financing and community-development (GEF project financing: $ 2,656,878 ; Co-financing: $ 35,000,000)

This component seeks to implement and operationalize the plans produced under Outcome 1.

Outcome 2.1: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans

Outcome targets:

Target 4: Area-based protection of key species habitat for: Sulawesi Babyrusa *Babyrousa celebensis* (VU), Mountain Anoa *Bubalus quarlesi* (EN), Knobbed Hornbill *Rhyticeros cassidix* (VU), and Maleo *Macrocephalon maleo* (CR), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Flores scops-owl *Otus alfredi* (EN) and Flores Hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Oru, *Chloothamnus reholttumianus* (VU), Sumba Cockatoo *Cacatua citrinocristata* (CR), *Santalum Album* (VU), *Eucalyptus urophylla (EN)*

Target 5: # of ha landscape under improved practices for: (i) Biodiversity - breeding, feeding or resting requirements; (ii) enabling BD through productive agroforests and HCVF protection: Total of at least 510,130 ha, consisting of 208,543 ha (KBA), 120,394 ha of Production forest in or near KBA, plus 181,193 Areas for Other Land Use (APL) included in five ICLP

Target 6: 8,003 ha of degraded high-BD forest within and adjacent to KBAs restored

Target 7: Reduction in drivers of BD loss as stated in ICLP/Species Conservation Plans: 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines

Target 8: FMU/KPH operations improved with biodiversity and SLM outcomes: Target: 13 KPHs totaling 277,130 ha

This outcome will protect lowland tropical, tropical dry deciduous, monsoon semi-deciduous forests in the project sites, which are the key habitats for globally significant biodiversity in these landscapes, though PPPP conservation agreements to establish Other Effective Area-based Conservation Measures (OECMs) over a majority of the 208,543 of KBA (including 30% of Hutan Lindung). These will be informed by the Integrated Conservation Landscape Plans of Outcome 1.1, and will be accompanied by commitments to both protect biodiversity as well as take-part in biodiversity-friendly livelihood

activities and investments through these joint agreements, if communities agree to no additional encroachment, poaching, fire for land-clearing both to expand plantations (e.g. commodities in Gorontalo, South Sulawesi), and other key drivers of BD loss, with the majority of livelihood activities to occur outside of this zone. These are the Zone 1 high-biodiversity areas on current Hutan Lindung for which current management is lacking and encroachment pressures compromise biodiversity values. Targets include conservation of high biological value species such as Babirusa, Anoa, Macaque, 2 bird species, 3 tree species, 2 bamboo endemics, as well as key pollinator species (of which 4 bird and 2 lepidotera). Any establishment of social forestry areas in this zone will be for purposes of safeguarding biodiversity and enabling adat tenure recognition and stewardship of these lands and supporting them with livelihood options on adjoining lands in Zone 2. For degraded areas in these conservation areas, consideration will be given to the suitability of bamboo assisted regeneration, which is allowed for under current law allows for[81]81

The project will develop activities to target the specific direct and underlying drivers of biodiversity loss, which vary according to the landscape, but generally all include habitat encroachment for agriculture and grazing, wildlife poaching, fire, and in some landscapes, infrastructure development, commodity-driven agriculture, etc. An assumption is that through the partnerships and livelihood activities, the commitment and reward through economic incentives (as per components 1.3 and 3) will change the driver patterns. Nevertheless, specific activities to address drivers will be determined in the ICLP, and these would likely include local guardian watchmen programs for MCS related to species conservation programs, development of alternatives to fire as a land management tool, and other measures.

Based on the species protection plans created under 1.1. the project will support the development of Community Monitoring, Control and Surveillance ? MCS (forest guardians), as a means to build local commitment to area-based biodiversity stewardship, and to address threats to biodiversity loss that occurs (e.g., illegal logging, bush fire where applicable). Especially in adat communities, these on-the-ground biodiversity monitoring programs allows them to create jobs for local stewardship of their customary lands, while also providing government with local stewards and capacity that would not otherwise be present for this purpose. While the creation of Community MCS programs will be established with GEF funding, the project will also identify how communities can acquire the necessary funding for on-going operations, after the project ends, so that MCS continues as part of their social forestry stewardship activity. These are part of *Output 2.1.1: Other Effective Conservation Measures (OECM) and community- based Monitoring, Control and Surveillance implemented (e.g. integrated fire management, protection of wildlife habitat for breeding, feeding, resting; encroachment)*

Output 2.1.2: KBA/HCVF forests protected and restored (assisted natural regeneration and enrichment planting) and sustainable forest/savannah management on degraded lands for increased soil and woody vegetation health: For Zone 2 lands including areas that are on Areas for Other Land Use/Areal Penggunaan Lain (181,193 hectares) or Production Forest/Hutan Produksi (158,347 hectares), the PPPP conservation agreements will enable implementation of the outputs related to agreed integrated landscape plans on land identified as suitable to be: a) gazetted as Hutan Konservasi, Kawasan Konservasi or Hutan Lindung, or OECM approaches, based on high-biodiversity values, and b) those

areas that are suitable for bamboo-based and other agroforestry commodity and livelihood opportunities that are aligned with biodiversity objectives in the adjacent areas. A significant amount of the Zone 2/sub-type (b) area deemed suitable for bamboo-based and other agroforestry and livelihood opportunities would be potentials for adat social forestry concessions.

A portion of Zone 2 lands will be prioritized for land restoration activities, such at the Todo-Repok/Ruteng, Alor, and Sumba sites, where land degradation in and outside of KBAs will be addressed through assisted natural regeneration, with bamboo and other commodities agroforestry, which allows for transition to natural ecosystem representation. East Nusa Tenggara is one of three national priority sites for LDN, thus 8,003ha of degraded land have been identified as priorities.

Output 2.1.3 Biodiversity is mainstreamed into 277,130 ha FMU/KPH implementation including their business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities: A core objective is to bring conservation/biodiversity, and aligned economic/investment planning into the KPH process covering 277,130 hectares and 13 KPHs. One key target is the reduction of drivers of biodiversity loss as stated in ICLP/Species Conservation Plans, such that there is a 50% reduction in the frequency of bushfires (especially in Sumba and the rest of NTT), a 40% reduction in poaching of key species; and 25% reduction in illegal encroachment, measures against project baseline scenario. While KPHs were intended to bring about transformation of forestry development, prioritizing biodiversity, tenure arrangements and the aspirations of local communities through an optimised landscape or watershed approach, many planning processes are on-going and capacity in all relevant areas can be weak. Thus, operationalizing the ILM planning outputs to motivate implementation and investment is crucial. Key Provincial partners include the DINAS LHK (Department for Environment and Forestry at Provincial level for protection forests (Hutan Lindung) and production forests (Hutan Produksi), and the district government under authority of Ministry of Home Affairs which oversees forests found in Areal Penggunaan Lain (APL). For tribal communities, they have a special interest in a significant amount of area on the APL, and these are priorities for demarcating tribal forest areas, and for Forest Management Unit (FMU) planning.

Activities: Consultations with stakeholders and government departments (priority is DINAS Dinas Kehutanan Provinsi, but requires others such as BAPPEDA, Bupati's at Kabupaten levels), development of follow-on technical assessments, implementation and capacity building

Partners: Burung Indonesia; KLHK KSDAE, ASEFI, DASHL, LHK, KKHSG, PKSL; Provincial BBKSDA, Environment and Forestry, BAPPEDAs

Outcome 2.2: Enhanced biodiverse agroforestry production on Social Forestry Concessions leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs):

Outcome targets:

Target 9: 100,000 ha agroforestry on social forestry concessions on APL and Production Forest (same indicator 4)

Target 10: 10 % of population in project sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <100,000 ha agroforests, and over 40% is women; Direct beneficiaries co-benefit from GEF investment: Total of 55,900, of which 22,350 are female and 33,550 are male

Target 11: Agroforest BD, SLM and GHG indexes improving at midterm and end of project; BD and SLM TBD; GHG: 8,733,744 MtCo2e AFOLU emissions reduced by 2043

Output 2.2.1 Community-based (PPPP) Bamboo agroforestry (and other NTFP commodities) operational, conditional community-BD conservation agreements (ICLP) and investment-ready through feasible value-chains: Implement plans developed under Outcome 1.2. Develop community-based (PPPP) business ventures in coffee, cashew, kenari nut, vanilla, weaving dye materials, bamboo and other NTFPs in agroforestry systems, based on ICLP mapping of site suitability, and to render them operational and investment-ready, with value-chains and market access developed under Comp 3 incremental support, including targeting marketable commodities and products. Business models based on agroforestry commodities/products will be promoted in Zone 2/sub-type (b) areas (these are distinct from the Zone 2/sub-type (a) areas which contain KBAs and IBAs with inadequate protection, that will be proposed for increased biodiversity protection as part of the project). Zone 2/sub-type (b) therefore are the areas that are well suited to agroforestry systems targeted marketable commodities/products with local communities, while also targeting improved area-based conservation outcomes of habitats - key to the lifecycle of species targeted for conservation, that exist in these areas (such as Cacatua, hornbills, babirusa, anoa, macaca, etc.). This will build upon the extensive baseline program by EBF with the provincial government in NNT. Project partners and sources of co-finance have been identified with PT Talasi in NTT, Javara/Seniman Pangan, Duanyam/Kreologi, Threads of Life, Bank CIMP Niaga, Bank NTT, and others. PT Talasi will commit capital investment in processing facilities owned by Talasi, costs of certification for organic and/or sustainable production by farmers, and in the purchase of quality products from farmers over the 6 year timeframe of the project, and beyond. Javara/Seniman Pangan will develop product lines, and value chains from producer to markets. This will be facilitated through their Labuanbajo, Flores facility. Kreologi will similarly develop food and eco-tourism products and value chains. Product offtakers and/or buyers include: PT Talasi https://www.talasi.com; Javara & Seniman Pangan https://javara.co.id/; Du Anyam & Kreologi https://duanyam.com/ and https://krealogi.com; PT Royal Coconut https://royalcoconut.id; PT Agri Spice Indonesia https://www.agri-spices.com; PT Mega Inovasi Organik https://megainovasiorganik.com/; Karana Global https://www.senimancoffee.com/karana/; Wulang Pari Coffee, Manggarai, Flores https://www.youtube.com/watch?v=vbo0cW2zDlE . These private sector partners vary across each site, but their functions are similar: they are working with growers, sourcing in the landscapes, have already-existing value-chains developed and are willing to create new ones, and are accessing domestic and international markets. By partnering with them, this project engages companies that can take on the ICLP priorities, and incorporate new product lines, improve production standards, post-harvest storage and processing, packaging and marketing. In addition, training is a crucial means to work with farmers on improved practices and to increase yields.

Refer to tables ?Project sites- Summary of interventions? for more detail on each site, and rationale for how business models relate to addressing driver pressures and delivering tangible livelihood benefits. Also refer to business models assessment completed during the PPG, in the Annex.

One of the key objectives of NTFP-based livelihoods development is to decentralize the value-added components as close to the communities as possible to capture the maximum possible value added at the local level. Yet for these enterprises to be sustainable they must be economically efficient, which will likely require a minimum scale to justify the investment and provide adequate returns. Thus, investment decisions are not necessarily questions about viable village-level businesses, but about what collective processing facilities can be established and their optimal location. Another consideration is the structure of the existing value-chain, and how feasible project interventions are to shift those, to deliver more value to the producer. In commodity production, value to the producer is generally low compared to that captured by the traders and manufacturers. The project has assessed feasibility in by-passing traders and collectors in order to forge more direct linkages between buyers/off-takers and producers.

In addition to fundamental questions of efficiency and distribution of value added, it is important to note that biodiversity friendly business development can benefit many levels. It has the potential to add to the pride and dignity of the participating communities, especially for the women involved who typically have few opportunities to visibly contribute to the economy. These business activities constitute a real transfer of skills for the region. Moreover, the combination of biodiversity protection and product or activity development has the potential to develop into an iconic product for the region. For example, the development of such products as Organic Hornbill Chocolate from Gorontalo, or a network of Bamboo Ecotourism Camps in Flores will be unique in the marketplace.

The other critical factor assessed in the PPG phase is the need for a business ecosystem to facilitate the flow of inputs into the supply chain, logistics, and the general knowledge required to nurture and support businesses. No business can survive, much less thrive in a vacuum, and it is important to acknowledge and address this when working in remote areas in these Provinces. After the scoping that occurred in the PPG phase, the business planning to occur early on in project implementation will assess in detail business environment. For example, in NTT, all packaging materials come from Java and NTT has high transport costs with infrequent service. A single small business will pay the highest cost and must plan far in advance. If there are other businesses in the region, buyers can aggregate their orders, negotiate a lower price for larger joint orders, facilitate logistics and possibly back each other up if they unexpectedly run short.

Activities: GEF incremental support will enable the following outputs: a) community-based business plans for key commodities/products (see *?Project sites- Summary of interventions?* tables) that are suited to the local conditions and habitats; b) plans for and development of community-based processing facilities, post-harvest storage and related improvements, c) product development, testing, meeting production standards, training (implemented by PT Talasi, Javara/Seniman Pangan; Kreologi; PT Royal Coconut; PT Agri Spice Indonesia; Wulang Pari Coffee, Agradaya: Collaboration for Sustainable Agriculture and others), d) identification of markets and off-takers/buyers, negotiation, product branding, e) siting and development of bamboo buildings for ecotourism and related tourism activity offerings, capacity-building, market development and promotion, f) technical assistance and capacity-building to carry out the biodiversity-friendly business models, including to be investment-

ready (e.g. establishing or strengthening the community-level enterprise, building their fiduciary responsibility, training to support their implementation of the business models).

Partners: PT Talasi (Haldin), Javara/Seniman Pangan; Kreologi; PT Royal Coconut, PT MIO, Wulang Pari Coffee, PT Agri Spice Indonesia, Agradaya, PT Bali Chocolate Factory, Karana Global

How the theory of change (refer to Section 3.2 above) is applied in each of the sites is detailed below, starting with what priority species are identified in each site; the direct and underlying drivers impacting forests and species habitats; initial indications of future diver pressures; the intervention logic to address drivers; the agroforestry species identified as most suitable for each site; the community-based biodiversity-friendly business models and related private sector partners; how the project seeks to engage adat communities, women and youth; and priorities for land restoration.

Table 9: Popayato-Paguat, Gorontalo - Intervention logic

<table>
<tr><th colspan="2">Popayato-Paguat, Gorontalo, Sulawesi</th></tr>
<tr><td colspan="2">Prioritized species: Maleo Macrocephalon maleo (CR), Knobbed Hornbill Rhyticeros cassidix (VU), Mountain Anoa Bubalus quarlesi (EN), Anoa Bubalus depressicornis (EN), Babirusa Babyrousa celebensis (VU), Petrocarpus indicus (EN)</td></tr>
<tr><td>Direct drivers: agricultural expansion into forest areas from corn planting, more recently fueled by the public poverty alleviation program on corn production. Illegal hunting, illegal logging, slash-and-burn clearance, poaching for wildlife trade, gold mining (we are avoiding that area due to pressures being too intense), forest encroachment spreading westward, transmigrant settlement and related expansion
Future pressures: Corn production, agricultural expansion, population pressures</td><td>Underlying drivers: Government promotion of corn growing as a national priority has fuelled land use change. Debt cycles where farmers obtain inputs from collectors and then are beholden to sell to them at low cost. Significant trans-migration has increased population and pushed people into the forest frontier.</td></tr>
<tr><td colspan="2">Intervention logic: Revive the KLHK plan to designate this KBA as a national park; support development of community-based park patrolling. Build on Burung Indonesia?s work addressing corn drivers east of Panua. Livelihood improvements to stop encroachment and poaching.</td></tr>
<tr><td colspan="2">Bamboo agroforestry species: cocoa, coconut products, sugar palm, cloves, durian, avocado, bamboo</td></tr>
<tr><td colspan="2">Community-based biodiversity-friendly business models: Cocoa-build on Burung?s community-processed cocoa, with improved processing, identify key niche off takers, branding & market development. Virgin Coconut Oil (VCO) value-added products with branding & market development</td></tr>
<tr><td colspan="2">Private sector partners: PT Royal Coconut, others to be determined</td></tr>
<tr><td>Adat, women and youth: Women patrollers (paid by government), Virgin Coconut Oil as small-scale, value-added products for women (VCO). One uncontacted adat tribe in project area.</td><td>Restoration: N/A, though tree planting in degraded corn growing areas useful</td></tr>
</table>

Table 10: Lompobattang, South Sulawesi - Intervention logic

Gunung Lompobattang, South Sulawesi	
Prioritized species: Mountain Anoa *Bubalus quarlesi*[82]82*(EN),* also Lampobatang Bunomys *Bunomys coelestis* (CR), Pigmy Tarsier *Tarsius pumillus* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Lompobattang Flycatcher *Ficedula bonthaina* (EN)(site is only known habitat), Southern Hylocitrea *Hylocitrea bonthaina* (EN),	
Direct drivers: Agricultural encroachment into forest areas (coffee, porang, corn, cocoa, vegetables for markets in Surabaya and Kalimantan), unregulated villa development for tourism. Degradation drivers centered around logging commercially lucrative timber such as ulin (ironwood), ebony, teak, and other species. **Future pressures**: land development (villas), agricultural expansion especially if area becomes a horticultural supplier to new capital in Kalimantan (supply route already existing)	**Underlying drivers**: Poverty and poor land tenure. Climate change impacts are affecting coffee production, pushing it higher up slopes.
Intervention logic: Integrated sector planning and commitment to address growing drivers of agricultural production and tourism. Stronger protection status for the Production forest west of the TWA, and work closely with social forestry in this area. Value-addition and commitment to no expansion into forests for coffee growers. Social forestry active all around site, grow link between social forestry and adat traditional management. Community-based TWA patrolling and stewardship.	
Bamboo agroforestry species: Coffee, rattan, bamboo, endemic forest species, fruits and nuts, vanilla	
Community-based biodiversity-friendly business models: Eco-tourism development; domestic scale single origin coffee, improved processing and quality control, branding and market development; high quality vanilla production.	
Private sector partners: Du Anyam/Kreologi; Javara/Seniman Pangan; PT Agri Spice Indonesia	
Adat, women and youth: Strong adat communities in area, all lack financing. Women have no official roles in coffee production, but are interested. Strong women CSOs in area.	**Restoration**: N/A

Table 11: Todo-Repok/Ruteng, NTT - Intervention logic

Todo-Repok/Ruteng, Flores Island, NTT
Prioritized species: Flores Eagle *Nisaetus floris* (CR), Flores scops-owl *Otus alfredi* (EN), long-tailed monkeys *Macaca fascicularis* (EN)

Direct drivers: Agriculture (coffee expansion into forest, then felling of trees to convert area into production), geothermal development (though this will have a limited footprint and will not expand). Degradation drivers are firewood collection, illegal encroachment and timber extraction into Ruteng TWA, which is a challenge. The geothermal development is expected to serve much of Flores island, but plans for local rural electrification (to stem the dependency on firewood collection) is non-existent. **Future pressures**: Agricultural encroachment, water pressure in dry season	**Underlying drivers**: Poverty. Tenure conflict. Climate change impacts are reducing water in the dry months in the norther regions of the KBA and also impacting agricultural yields such that farmers are expanding to address yield problems. The role of collectors and low commodity prices keep farmers in a cycle of debt.
Intervention logic: Stemming driver pressure into Ruteng TWA by value-addition for coffee growers (linked to no expansion) and community-based tourism as alternative for income generation. Similarly in Todo-Repok, adat community tourism and stewardship strengthened. 5,000 ?widowed? women weavers are crucial to reach and support to address poverty and livelihoods. Multi-species bamboo agroforestry to address poverty. Area is headwaters of major rivers, but water stress increasing?integrated sector planning for water management far beyond project site.	
Bamboo agroforestry species: Bamboo, weaving (Ikat), rattan, coffee (Arabica & Robusta), kemiri nuts, cloves, durian, rambutan, mango, mangosteen, honey	
Community-based biodiversity-friendly business models: Eco-tourism; value-added coffee processing for domestic specialty single-origin coffee, branding and marketing; specialty honey processing and sales, improved distribution and marketing for horticulture products to Labuanbajo.	
Private sector partners: Wulang Pari Coffee, Karana Global, PT Bali Chocolate Factory, Javara/Seniman Pangan, Krealogi, Bank NTT, TLM Cooperative	
Adat, women and youth: Many adat communities with strong stewardship. Need to reach a portion of the 5,000 ?widowed? women (partnership with PEKKA)	**Restoration**: 2,666 ha

Table 12: Alor, NTT - Intervention logic

Alor, NTT	
Prioritized species: Flores hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua Sulphurea* (CR), Tenggara Hill-Myna *Gracula venerata* (EN), *Eucalyptus urophylla* (EN)	
Direct drivers: Around Gunung Muna, illegal hunting, bush fire, and land clearing. Around Tuti Adagae IBA, threats include settlements in the conservation area, wood collection for housing, and poaching of fauna for trade **Future pressures**: Port development on east side, ring road	**Underlying drivers**: Poverty, high demand for cacatua sulphurea eggs and other wildlife in the market, weakening of adat traditions and laws

Intervention logic: Improve adat livelihoods through high-value kenari product development. Similar for vanilla. Stem future driver pressure from major port development and ring road through local laws. Build campaign to stop poaching (linked to reinvigorating adat traditional laws, increased knowledge and access to livelihood improvements). Community-based tourism offerings with bamboo buildings (oriented towards dive tourism).	
Bamboo agroforestry species: Vanilla, kenari nuts, cashew, honey, bamboo	
Community-based biodiversity-friendly business models: Restored vanilla production; kenari nut processing and oil production; forest honey processing and marketing.	
Private sector partners: PT Talasi/Haldin, PT MIO, Javara/Seniman Pangan, Krealogi, Bank NTT, TLM savings & loan cooperative	
Adat, women and youth: Adat knowledge and laws already held the knowledge of how to manage the land sustainably. Women collect kenari nuts.	**Restoration**: 1,094 ha

Table 13: South-Eastern Sumba, NTT - Intervention logic

South-Eastern Sumba, NTT	
Prioritized species: Sumba Hornbill *Rhyticeros everetti* (EN), Citron-crested cockatoo *Cacatua sulphurea citrinocristata* (CR); Sandalwood, *Santalum album* (VU); Bamboo *Chloothamnus reholtummianus* (VU)	
Direct drivers: About 60-90% of the island?s forest cover was cleared between 1927 and 1990, leaving forest fragments only. In some moist forest areas throughout the region, timber and rattan collection is intense, especially near settlements and wherever habitat has been fragmented into small patches. Logging, burning vegetation for shifting agriculture and hunting wildlife, logging for housing and firewood, livestock grazing and burning grasslands and areas around forests. **Future pressures**: Climate change, drought, poverty	**Underlying drivers**: Poverty, trans-migration (internal to Sumba), locust outbreak decimated corn crop in 2023 leading to food shortages (short-term, imminent)
Intervention logic: The linkage between highly erodible agricultural soils and the few remaining upland forests is crucial for water and to mitigate the pest outbreaks of grasshoppers decimating crops (due to their natural predators (birds and ants) being destroyed by hunting and fires). Reducing burning requires a cultural shift in pasture management. Addressing poverty and helping get products to markets will have a big impact, but must be careful to consider equity and access. Social forestry groups are already formed by KPH, but have little capacity and lack funding. They are ready to engage. Tourism (nature and weaving) can diversify income sources.	
Bamboo agroforestry species: Cashew, tamarind, dye plants (*Indigofera tinctoria, Symplocos cochinchinensis, Maclura cochinensis, Morinda citrifolia*), sandalwood, gaharu/agarwood, bamboo	
Community-based biodiversity-friendly business models: Commercial development of natural dye materials for weaving (ikat); sandalwood, gaharu, arena pinnata; honey; eco-tourism to leverage traffic to/from national park; cashew value-added processing and marketing (PT Talasi investing in processing facility, as an off-taker)	

Private sector partners: PT Talasi/Haldin, Threads of Life, Javara/Seniman Pangan, Bank NTT, TLM Cooperative	
Adat, women and youth: Need more time to meet with adat communities in project area. Women weavers in eastern side of project area.	**Restoration**: Work with transmigration community below Kakaha. Overall restoration goal: 4,243 ha

Component 3: Sustainable sources of financing for the implementation of integrated landscape conservation and management

Budget: GEF project financing: $ 1,767,354**; Co-financing: $** 18,866,328

Outcome 3.1: Technical assistance so public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD

Outcome targets:

Target 12: 45 % of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration

Target 13: >30% of new business ventures led by women

Target 14: Activating 2 innovative national-level fiscal incentives; based on BD conservation performance at provincial and village levels and leading to increased government budget and lending for regions based on biodiversity conservation and land restoration performance.

Target 15: 50% of funds required for restoring 8,003ha and establishing 100,000 ha agroforests come from new public and private investments

Output 3.1.1 Blended/impact investments mobilized through public investment and agreement with private sector, financers/banks and local producers (particularly women) to realise livelihood targets and enable biodiversity-friendly business ventures. A critical element of the biodiversity-friendly business plans to be determined early in implementation is sequencing of financing ? both sources and amounts. It is important to note that this will be a comprehensive business plan incorporating seed financing all the way through marketing and sales. For instance, before initiating joint processing facilities, full financial feasibility assessments will be completed including product off-takers ready to buy the resulting products. In the PPG phase, scoping identified sources of finance across the stages of the value chain, for products ranging from coffee, cocoa, kenari, cashew, forest honey, sugar palm, weaving inputs, and bamboo to tourism, in partnership with PT Talasi/Haldin, Javara/Seniman Pangan, Duanyam/Kreologi, Threads of Life, Bank NTT, Bank CIMB Niaga and others.

The community-based business models will start with exploring options for the use of regular budgetary funds allocated to the village, for example the creation of a series of BUMDES (Badan Usaha Milik Desa) to collaborate in a joint processing facility or cooperative structure. Most provinces in Indonesia have networks of savings and loan cooperatives, sometimes with extensive networks such

as TLM[83]83 in NTT, and community-based business ventures should include these activities from their start up.

All three of the target provinces have provincial development banks[84]84 which typically have preferential or concessionary schemes that would be a good fit for biodiversity-friendly business development. Bank NTT in particular has a reputation for innovative products for micro, small and medium enterprises and has confirmed they can lend to groups with a solid business plan in addition to individuals.[85]85

Larger collective financing efforts should first approach government agencies as the options for grant financing are likely to be greater. Initial approaches at the national level could tap significant funds, or lead to important support for provincial resources. The Ministry of Cooperatives and Small and Medium Enterprises (KUMKM)(already confirmed as a sizeable source of co-financing for the project) is the best source to finance collective processing facilities and to provide resources for training and capacity building, as demonstrated with their financing of the new bamboo joint production center in Labuanbajo, Flores.[86]86 Provincial and district offices of the Ministry of Agriculture have provided funds for seedlings and various types of processing equipment, including solar drying tunnels and coffee polishing machines, and the district governments through the Ministry of Industry have provided investment funds at the local level to jumpstart processing businesses.

A commercial funding approach should complement government funding strategies. The provincial development banks and commercial banks all participate in the KUR program, a national government program offering Rp 10-500 million loans to small businesses at 6% interest rate. Some banks are enthusiastic partners in this market, especially Bank NTT and BCA.[87]87 While the Rp. 500 million ceiling limits large scale investments, with a sound business plan including reliable off-takers several borrowers can typically collaborate on a joint project.

Newer funding facilities are showing up in Indonesia and should also be explored, such as ADM Capital which just launched a fund in Indonesia and are interested in fixed asset lending, Terratai[88]88 which is a new venture capital fund focusing on food system challenges and drivers of biodiversity change, the Karma Fund[89]89 which is a crowd-funding facility focused specifically on Indonesia, Hivos[90]90 (from the Netherlands) operating with a focus on gender equity and climate justice, and Rikolto[91]91 (from Belgium) working in coffee and cocoa.

The project will target 45% of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration (the ?impact? aspect of the investment).

Activities: Comprehensive plan for activating and sequencing investments, low interest loans to farmers/beneficiaries, financial assistance for farm-scale production, creation of financial disincentives

so that increased production is linked to deforestation-free, biodiversity, climate and LDN objectives (financing to implement Outcome 2.2). Develop the fiduciary responsibility and reporting requirements for community-based cooperatives and farmer groups to receive funding, build their capacity to manage the financial commitments to achieve outcomes, and similarly work with government partners (provincial, kabupaten, kecamatan, village levels) to activate financing and achieve results

Partners: Bank NTT; Ministry of Cooperatives and Small and Medium Enterprises, Ministry of Village, Development of Disadvantaged Regions and Transmigration (KEMENDES), Ministry of Agriculture, Ministry of Industry, plus all private sector partners.

Output 3.1.2: Mainstream biodiversity lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions: This is an opportune time to demonstrate new models and means of activating public investments in livelihood activities that are biodiversity-friendly. By linking the PPPP agreements to accessing new forms of public finance to commitment to conservation and biodiversity outcomes, the project seeks to build broad-based commitment to the project goals. The Ministry of Cooperatives and Small and Medium Enterprises (KEMENKOP) and Ministry of Village, Development of Disadvantaged Regions and Transmigration (KEMENDES) are important partners and sources of co-finance for post-harvest storage and processing. Further, the project will engage existing sources of financing for driver activities to see how to shift them. A priority is the Provincial government of NTT programme on cattle (East Sumba site is a priority), which is being partially financed through Bank NTT. The programme on cattle could potentially increase driver pressure, as increasing cattle stocking without planning fodder banks and corralling will worsen already stressed pasture and fire use to spur grass growth. Bank NTT has expressed interest to working with this project to develop biodiversity and LDN standards for the cattle project, and restrict lending to farmers until they demonstrate environmental performance (fodder banks, corralling, no use of fire). GEF incremental financing will support the development of the environmental performance standard and troubleshooting implementation. The national allocation to Village Funds has grown to Rp 796 trillion (US$55 billion) in 2021,[8] but many villages lack the fiduciary skills and oversight mechanisms to qualify and manage the funds, thus the project will grow capacity for communities to access and utilize these funds for aligned purposes.

Activities: Technical analyses to plan and active new fiscal incentives; consultations with relevant agencies at government levels to develop implementation plans and troubleshoot barriers/obstacles; work with regional credit unions and banks servicing cooperatives (Bank NTT) to mainstream biodiversity, climate and LDN objectives into lending portfolios (priority includes how Bank NTT's roll-out of the Province's livestock programme can include new mechanisms to only deliver funds to areas/farmers that are adopting improved pasture management practices, corralling and stopping pasture burning in Sumba + others)

Partners: Bank NTT, TLM Cooperative, PT Talasi

Output 3.1.3: Implementation of ICLP through facilitating government fiscal mechanism including ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets: will be defining new models for how to operationalize recent Indonesian ecologically based performance

financial incentives. This project component seeks to activate new fiscal incentives by designing and implementing new indicators related to biodiversity through the ecological fiscal transfer mechanism. This new ecological fiscal transfer mechanism is due to the passage of Government Regulation no. 12 of 2019 concerning Regional Financial Management and Government Regulation no. 46 of 2017 concerning Environmental Economic Instruments (IELH) which allows for ecologically-based performance incentives. However, these have yet to be operationalized. These provide for fiscal measures to assist Indonesia in achieving its commitments under Law no. 16 of 2016 for Ratification of the Paris Agreement to the United Nations Framework Convention on Climate Change. This includes ecological fiscal transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets. This new innovation in finance for biodiversity can also be leveraged through other sources of public finance. This project component envisions also working to define biodiversity indicators to the Regional Incentive Fund (DID), thus building upon a basis already developed with indicators for waste and energy. This component also will explore and develop strategies with regional credit unions to include biodiversity and no land degradation as a lending criteria to support involved cooperatives (government-backed people's business credit program (KUR)). Particularly in NTT (Sumba and Todo-Repok/Ruteng project sites), more than half of the population has joined cooperatives (compared to only 8% across Indonesia), thus cooperatives are a key partner for channelling lending to smallholders based on biodiversity and avoided land degradation criteria.

Activities: Workshops, technical assessments and development of pilot for ecological indicators for TAKE TAPE TANE budgets in project sites/Provinces. Technical analyses on other related fiscal mechanisms (Dana Desa, others), workshops to troubleshoot implementation, piloting and implementation.

Partners: Ministry of Finance, Ministry of Cooperatives and Small and Medium Enterprises, Ministry of Village, Development of Disadvantaged Regions and Transmigration

Component 4: Monitoring and Evaluation

Budget: GEF project financing: $ 373,000**; Co-financing: $** 4,538,698

Outcome 4.1: Integrated and effective monitoring and evaluation system in place

Output 4.1.1: Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1) This project component consolidates the lessons learned and replication potential to other landscapes in the project area and across Indonesia. Knowledge products will be developed, working in close collaboration with communities, private sector partners, government agencies and the marketplace.

This component also implements the monitoring and evaluation aspects of the project. Importantly, these project-level M&E systems will be linked or aligned as appropriate to other relevant ones for villages, the Provincial governments and the Government of Indonesia, through the Sustainable Development Goals Desa (village) process, Nationally-Determined Contribution to the Paris Climate Agreement, and others. The outcome of this component is development of project M&E and for knowledge to be captured at regular intervals and disseminated for replication and uptake in other landscapes in Indonesia for biodiversity conservation and community livelihoods. Monitoring is a key

aspect of the PPPP agreements and will track biodiversity protection and livelihood improvements, to ensure the project is generating returns to the communities. Project M&E at each site is also a part of the Community Biodiversity Monitoring Programmes that are established under Outcome 2.1.1. The site models will demonstrate what types of agreements, integrative governance and finance models can function and scale to other areas.

Activities: Project-level M&E systems developed for on-going performance evaluation of BD, LDN, poverty reduction and gender targets, develop kecamatan or kabupaten-based M&E indicators and measures relevant to the SDGs and other performance measures (GHG emissions, waste, etc.) to help inform broader measure of project impact; identify how to link M&E to Community Biodiversity Monitoring Programmes est. under Outcome 2.1.1.

Partners: All project partners, communities, government agencies

Output 4.1.2. Project progress timely reported

Output 4.1.3. Mid-term review conducted

Output 4.1.4. Terminal Evaluation conducted

The overall structure of project components has been retained as in PIF, and the outcomes and expected outputs realigned and/or slightly rephrased to ensure consistency. A mapping of changes in project design with respect to the PIF is presented in the table below:

Summary of Changes in Components, Outcomes and Outputs

Black text is maintained, blue is modified

Comparison of Components		**Comparison of Expected Outcomes**		**Comparison of Outputs**	
ProDoc	PIF	ProDoc	PIF	ProDoc	PIF

Component 1: Planning and governance for integrated landscape conservation and reduced land degradation (Maintained)	**Component 1:** Planning and governance for integrated landscape conservation and reduced land degradation	**Outcome 1.1** Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon. **Indicators:** *(1) Ecological habitat requirements and conservation action for (keystone) species identified* **Target:** Species conservation assessment reports for two (2) Threatened species or one (1) fauna/flora group per landscape, focused on KBA/IBA sites *(2) Conservation plans for globally threatened or endemic species guide improved area-based conservation action*	**Outcome 1.1** Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon. **Indicators:** *(1) Ecological habitat requirements and conservation action for (key-stone) species identified* **Target:** Species conservation assessment reports for two (2) Threatened species or one (1) fauna/flora group per landscape, focused on KBA/IBA sites *(2) # of ha landscape under improved practices (CI 4) for: (i) Biodiversity - breeding, feeding or resting requirements*	Output 1.1.1 Analysis of impact drivers to ecosystems, and identification of opportunities for landscape and species protection in Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), which guide ecological and spatial context of restoration and habitat protection, measures to address drivers, as well as optimized investments for resilient landscapes and communities Output 1.1.2: Five (5) spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating LDN and key habitat conservation targets, linked to government Medium-term Development Plans for alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3) Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit (FMU) plans and boundary decisions,	Output 1.1.1 Analysis of impact drivers to ecosystems, and identification of opportunities for landscape and species protection in Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), which guide ecological and spatial context of restoration and habitat protection, measures to address drivers, as well as optimized investments for resilient landscapes and communities Output 1.1.2: Five (5) spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating LDN and key habitat conservation targets, linked to government Medium-term Development Plans for alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3) Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 219,896 ha of optimised Forest Management Unit (FMU) plans and boundary decisions,

		Target: at least one (1) multi-species conservation plan in each (5) landscape, including recommended action related to FMU, SLM and social forestry **<u>Outcome 1.2</u>** Improved landscape management with conservation outcomes through secure local governance and land tenure as a basis for enhanced agroforestry value-chains in social forestry concessions.	*(4.1); (ii) enabling BD through productive agro-forests (4.3) and HCVF protection (4.4)* **Target:** Total of at least 514,848 ha (Core Indicator 4), consisting of 167,894 ha (KBA), 96,725 ha of Protection forest/Non-KBA, plus 230,094 Areas for Other Land Use (APL) included in five ICLP *(3) Conservation plans for globally threatened or endemic species guide improved area-based conservation action* **Target:** *at least one (1) multi-species conservation plan each (4) landscape include recommended action related to FMU, SLM and social forestry* **<u>Outcome 1.2</u>** Improved	and management capacity established with partners under People, Public, Private, Partnerships (PPPP) agreements (see 1.1.2) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ <u>Output 1.2.1</u>: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community welfare and more sustainable and productive agroforestry value-chains (kenari, coffee, bamboo, cacao, cashew, etc.)	and management capacity established with partners under People, Public, Private, Partnerships (PPPP) agreements (see 1.1.2) <u>Output 1.2.1</u>: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community welfare and more sustainable and productive agroforestry value-chains (bamboo, cacao, sugar palm e.o)

		(3) Total # of social forestry concessions granted including for commodity production and access for women, integrating BD objectives. >30% of concessions led by women **Target:** 15; > 100,000 ha (as part of Core Indicator 4)	landscape management with conservation outcomes through secure local governance and land tenure as a basis for enhanced agroforestry value-chains in social forestry concessions. *(4) Total # of social forestry concessions granted including for commodity production and access for women, integrating BD objectives. >30% of concessions led by women* **Target:** 18; > 100,000 ha (as part of Core Indicator 4)		

Component 2: Implementation of the ICLP in alignment with local governance, impact financing and community-development	**Component 2:** Implementation of the ICLP in alignment with local governance, impact financing and community-development	**Outcome 2.1**: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans **Indicators:** *(4) Area-based protection of key species habitat* **Target:** Habitat needs (e.g. feeding, resting, breeding or viable populations) for: Sulawesi Babyrusa *Babyrousa celebensis* (VU), Mountain Anoa *Bubalus quarlesi* (EN), Knobbed Hornbill *Rhyticeros cassidix* (VU), and Maleo *Macrocephalon maleo* (CR), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Flores scops-owl *Otus alfredi* (EN)	**Outcome 2.1**: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans **Indicators:** *(5) Area-based protection of key species habitat* **Target:** ?x? ha for Babirusa, Anoa, Macaque, 2 bird, 3 tree, 2 bamboo endemics	Output 2.1.1: Other Effective Conservation Measures (OECM) and community-based Monitoring, Control and Surveillance implemented (e.g. integrated fire management, protection of wildlife habitat for breeding, feeding, resting; encroachment) Output 2.1.2: KBA/HCVF forests protected and restored (assisted natural regeneration and enrichment planting) and sustainable forest/savannah management on degraded lands for increased soil and woody vegetation health Output 2.1.3 Biodiversity is mainstreamed into 277,130 ha FMU implementation including their business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities	Output 2.1.1: Other Effective Conservation Measures (OECM) and community-based Monitoring, Control and Surveillance implemented (e.g. integrated fire management, protection of wildlife habitat for breeding, feeding, resting; encroachment) Output 2.1.2: KBA/HCVF forests protected and restored (assisted natural regeneration and enrichment planting) and sustainable forest/savannah management on degraded lands for increased soil and woody vegetation health Output 2.1.3 Biodiversity is mainstreamed into 219,896 ha FMU implementation including their busines plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities

		and Flores Hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Oru, *Chloothamnus reholttumianus* (VU), Sumba Cockatoo *Cacatua citrinocristata* (CR), *Santalum Album* (VU), *Eucalyptus urophylla (EN)* (5) *# of ha landscape under improved practices (CI 4) for: (i) Biodiversity - breeding, feeding or resting requirements (4.1); (ii) enabling BD through productive agroforests (4.3) and HCVF protection (4.4)* **Target:** Total of at least 510,130 ha (Core Indicator 4), consisting of 208,543 ha (KBA), 120,394 Production forest in or near KBA,	(6) # of ha of improved land management *for BD and LDN outcomes (same Indicator 2).* **Target:** at least 514,818 ha *(6) Degraded high-BD forest within and adjacent to KBAs restored* **Target**: 8,661 ha *(7) Reduction in drivers of BD loss as stated in ICLP/Species Conservation Plans* **Target:** 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines *(8) FMU/KPH operations improved with biodiversity and SLM outcomes* **Target:** 6 KPH-Ls (149,777 ha), 4 KPH-Ps	<u>Output 2.2.1</u> Community-based (PPPP) Bamboo agroforestry (and other NTFP commodities) operational, conditional community-BD conservation agreements (ICLP) and investment-ready through feasible value-chains (linked to financing Comp 3)	<u>Output 2.2.1</u> Community-based (PPPP) Bamboo agroforestry (and other NTFP commodities) operational, conditional community-BD conservation agreements (ICLP) and investment-ready through feasible value-chains (linked to financing Comp 3)

		plus 181,193 Areas for Other Land Use (APL) included in five ICLP *(6) Degraded high-BD forest within and adjacent to KBAs restored* **Target**: 8,003 ha *(7) Reduction in drivers of BD loss as stated in ICLP/Species Conservation Plans* **Target:** 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines *(8) FMU/KPH operations improved with biodiversity and SLM outcomes* **Target:** 13 KPHs totaling 277,130 ha **<u>Outcome 2.2</u>**: Enhanced biodiverse agroforestry production on Social Forestry Concessions	(68,523 h) and 1 KPH-K (1,596 ha) totaling 219,896 ha **<u>Outcome 2.2</u>**: Enhanced biodiverse agro-forestry production on Social Forestry Concessions leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs) *(9) # agroforestry on social forestry concessions on APL and Production Forest:* **Target:** 100,000 ha (same indicator 4)		

		leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs) *(9) # agroforestry on social forestry concessions on APL and Production Forest:* **Target:** 100,000 ha (same indicator 4) *(10) % of population in project sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <100,000 ha agroforests* **Target:** 10% of population, and over 40% is women; Direct beneficiaries co-benefit from GEF investment: Total of 55,900, of which 22,350 are female and	*(10) % of population in project sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <230,094 ha agro-forests* **Target:** 10% of population, and over 40% is women *(11) Agroforest BD & SLM indexes improving at midterm and end of project*		

		33,550 are male *(11) Agroforest BD, SLM and GHG indexes improving at midterm and end of project. Target: BD and SLM TBD; GHG: 8,733,744 MtCo2e AFOLU emissions reduced by 2043*			

Component 3: Sustainable sources of financing for the implementation of integrated landscape conservation and management	**Component 3:** Sustainable sources of financing for the implementation of integrated landscape conservation and management	Outcome 3.1 Technical assistance so public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD *(12) % of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration* **Target**: 45% investment *(13) Number of new business ventures led by women* **Target**: >30% *(14) Activating innovative national-level fiscal incentives; based on BD*	Outcome 3.1 Public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD *(12) % of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration* **Target**: 45% investment *(13) Number of new business ventures led by women* **Target**: >30% *(14) Activating innovative national-level fiscal incentives; based on BD conservation performance*	Output 3.1.1 Blended/impact investments mobilized through agreement with private sector, financers/banks and local producers (particularly women) to realise livelihood targets and enable biodiversity-friendly business ventures Output 3.1.2: Mainstream biodiversity and LDN lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions Output 3.1.3: Implementation of ICLP through facilitating government fiscal mechanism including ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets	Output 3.1.1 Blended/impact investments mobilized through agreement with private sector, financers/banks and local producers (particularly women) to realise livelihood targets and enable biodiversity-friendly business ventures Output 3.1.2: Mainstream biodiversity and LDN lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions Output 3.1.3: Implementation of ICLP through facilitating government fiscal mechanism including ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets Output 3.1.4: Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1)

		conservation performance at provincial and village levels and leading to increased government budget and lending for regions based on biodiversity conservation and land restoration performance. **Target**: 2 instruments *(15)* **Target**: 50% of funds required for restoring 8,003 ha and establishing 100,000 ha agroforests coming from new public and private investments	*at provincial and village levels and leading to increased government budget and lending for regions based on biodiversity conservation and land restoration performance.* **Target**: 2 instruments *(15)* **Target**: 50% of funds required for restoring 8,661 ha and establishing 100,000 ha agroforests coming from new public and private investments		

Component 4: Monitoring and Evaluation		Outcome 4.1: Integrated and effective monitoring and evaluation system in place	-	4.1.1 Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1) 4.1.2. Project progress timely reported 4.1.2 4.1.3. Mid-term review conducted 4.1.4. Terminal Evaluation conducted	-

4) Alignment with GEF focal area and/or Impact Program strategies
Alignment with GEF focal area and/or Impact Program strategies is retained as in PIF.

In order to address the barriers identified above, the project is aligned with the GEF-7 Biodiversity Focal Area and the 7 Land Degradation Focal Area in the following objectives:

Table 7: Project alignment with GEF-7 Focal Areas

GEF-7 Focal Areas:	Project outputs fulfilling GEF-7 objectives

BD-1 BD-1-1 *Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors*	a) Output 1.1.1 Analysis of landscape- and species drivers and protection needs in KBA/Important Bird Areas guide ecological and spatial context of restoration and habitat protection, as well as optimised land-use investments for resilient landscapes and -communities. b) Output 1.1.2: Five (5) Integrated Conservation Landscape Plans ? ICLP (spatially explicit) adopted and integrated into government Medium-term Development Plans, agreed to by District authorities, and bound by terms of PPPP multistakeholder conservation agreements ? including conflict management. c) Output 1.1.3 ICLP-based biodiversity conservation and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit plans and boundary decisions, and management capacity established with partners under the PPPP agreements (see 1.1.2) d) Output 2.1.1: Implemented species conservation plans, new Other Effective Conservation Measures (OECM) and community- based Monitoring, Control and Surveillance (e.g. reduced poaching, fire management, protection of key wildlife habitat for breeding, feeding, resting) e) Output 2.1.3 Biodiversity is mainstreamed into KPH implementation including their business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities f) Output 3.1.2: Mainstream biodiversity criteria into village and development funds, Regional Incentive Fund, and regional credit unions, to increase funds to be allocated for biodiversity conservation; and to include biodiversity as a lending criteria g) Output 3.1.3: Activating fiscal incentives by designing and implementing new indicators related to biodiversity through the ecological fiscal transfer mechanism. Includes ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets
LD-1-3 (Forest Landscape Restoration - FLR) *Maintain or improve flows of ecosystem services, including sustaining livelihoods of forest-dependent people through FLR*	a) Output 2.1.2: High biodiversity degraded forests rehabilitated with reduced LD, restoration (assisted natural regeneration and enrichment planting), increased soil and woody vegetation, associated carbon sequestration, and sustainable forest/savannah management on degraded lands b) Output 2.1.3 Biodiversity is mainstreamed into 277,130 ha KPH implementation including their business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities c) Output 3.1.2: Mainstream biodiversity and LDN lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions

LD-1-4 (Integrated Landscapes and Resilience ? INRM) *Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape*	a) Output 1.1.2: Five spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating biodiversity, LDN and key habitat conservation targets, to be integrated into government Medium-term Development Plans for alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3) . b) Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit plans and boundary decisions, and management capacity established with partners under PPPP agreements (see 1.1.2) c) Output 1.2.1: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community welfare and more sustainable and productive agroforestry value-chains d) Output 3.1.1 Private sector investments mobilized through company commitments (Talasi being the largest), bank loans to producers, and government partners, to enable biodiversity-friendly business ventures for financial viability of value chains and to realize livelihood activities linked to biodiversity conservation and land restoration

5) Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

The project seeks to mobilize USD 7.4 million of GEF resources of which USD 5.7 million is from the biodiversity focal area and USD 1.8 million from the land degradation focal area, and USD 70 million in co-financing. The GEF increment builds on the existing programs undertaken by the Government of Indonesia for biodiversity conservation, maintaining ecosystem services, sustainable land and forest management, and reversing land degradation. In the alternative scenario, the project will enable planning, partnership and governance for integrated conservation landscape management for selected species- and habitat- conservation in priority biodiversity and land degradation hotspots; implement integrated conservation landscape management for biodiversity protection while promoting community-based biodiversity-friendly business ventures; mobilize innovative finance for conservation and biodiversity-friendly agroforestry business models, and manage associated knowledge.

Table 17: Incremental cost reasoning

Project Component	Scenario without GEF Project	Scenario with GEF Increment

Component 1: Planning, partnership and governance for integrated conservation landscape management for selected species- and habitat-conservation	In Indonesia, 80% of biodiversity (ecosystems, species, genetics) of significant value is outside the formally gazetted protected area system. The key flagship species of flora and fauna in this proposal (e.g. Babirusa, Macaca, Anoa, Cacatua, Maleo fowl, Ebony, Rosewood, Sandalwood) have at least 50% of their habitat requirements outside PAs, and a large percentage of that occurs in 208,543 ha of KBAs in Hutan Lindung areas that have inadequate biodiversity management and enforcement.	Through GEF incremental support, analyses on drivers and species/habitat and ecological system requirements inform integrated landscape planning as a means to identify what steps can be taken to address drivers across different sectors, while also developing more in-depth plans for each key species, and also how actions to promote livelihood outcomes helps address drivers and improve biodiversity for the selected species. This will occur across the 510,130 ha of project area in Gorontalo, Gunung Lompobattang, Todo-Repok/Ruteng, Alor, and Sumba, in KBA/IBA and surrounding areas. This also establishes species conservation assessment reports for at least 2 threatened species or 1 fauna/flora group per landscape, focused on KBA/IBA GEF incremental support will result in five spatially explicit Integrated Conservation Landscape Plans (ICLP) will be adopted and integrated into government district-level plans and Medium-term Development Plans, and agreement terms solidified though People, Public, Private Partnerships (PPPP) conservation agreements ? including conflict management. Without this investment in PPPP convening and planning, these activities would not be financed.
	Central government recognizes the need to address this yet requires cooperation and participation by Provincial and district government, and key stakeholders, to address biodiversity loss and degradation in these areas. However there is very little additional central budget allocation for this and there is a lack of capacity at Provincial and district levels to do so and policy complexity (competing objectives) has resulted in low adoption of BD into FMUs. There is a lack of guidance, tools, and capacity to mainstream BD in these KBA areas in district and sector development plans. Community access to state forest land has	Improved conservation planning for globally threatened species breeding, feeding or resting requirements on 208,543 ha (KBA), 120,394 ha of Protection Forest, plus 181,193 Areas for Other Land Use (APL) ICLP-based biodiversity conservation and related economic/investment planning is integrated into 277,130 ha of optimised FMU plans and boundary decisions, and management capacity established with partners under the PPPP agreements, including a) establishment of multi-stakeholder fora and planning; b) forest management planning, and c) translation onto FMU business plans in order to guide conservation and protection, restoration, and agroforestry. This establishes an innovative approach, with GEF incremental support, that can be replicated in other regions in Indonesia. Globally threatened or endemic species conservation plans guide improved conservation landscape management and at least 1 multi-species conservation plan completed in each landscape, with recommended actions through FMU, SLM and social forestry

	been a priority for GoI, but conflicts with communities over land rights persist. There is also a lack of understanding by communities about the ecological, economic, and socio-cultural functions of the forest and a lack of capacity by GoI, Provinces and districts to engage with communities to solve these issues. Social Forestry has been viewed as a forest production program, yet this does not reflect the multiple values (including biodiversity protection and tenure security) that many adat communities seek. Further, given that 30% of the proposed SF area in the project is in protected forests and 21% is in KBAs, if SF is viewed primarily as a forest production programme, the project area could see increased biodiversity loss. Poor tenure security leads to increased encroachment, and lack of investment in sustainable practices.	GEF incremental support will enable delineation of Adat community social forestry concessions and their development aligns with ICLP objectives for biodiversity conservation and agroforestry livelihood interventions. This establishes a new model, applicable in other regions of the country, for SFs to include BD and LD objectives, and access public and private impact finance related to those objectives. At least 15 SF concessions, integrating BD and LD objectives are secured on at least 100,000 ha in the project area, focus on supporting women?s role in tenure access

Component 2: Implementing integrated conservation landscape management for biodiversity protection while promoting biodiversity-friendly livelihoods	Land management will likely continue along the historic trends of high impacts on biodiversity and habitat loss, and increased land degradation. There is a lack of local knowledge of the long-term value of ecosystem services to people?s livelihoods, and a lack of viable livelihood options that are sustainable. Most agriculture sector development support has favoured habitat depleting methods of production, there are high rates of poverty in these project areas. Habitat loss and ecosystem degradation in the project areas have occurred due to unsustainable practices such as illegal logging, firewood collection, forest fires and land encroachment for mining and agriculture activities. Deforestation has been very high in these landscapes, though over varying time periods. Land degradation occurs from inappropriate soil conservation practices, overgrazing, slash-and-burn cultivation, pasture burning, and an increasing population. Efforts to address these problems have not sufficiently addressed people's involvement in solutions that affect their farming practices, ensuring it can work alongside adat local knowledge, and also	GEF incremental support allows for implemented species conservation plans, new Other Effective Conservation Measures (OECM) and community- based Monitoring, Control and Surveillance (e.g., reduced poaching, integrated fire management, protection of key wildlife habitat for breeding, feeding, resting). Piloting new approaches for OECMs, to safeguard the significant biodiversity outside PAs, is aligned with CBD guidance and increasingly being recognized by GoI as a solution. Target species: Sulawesi Babyrusa *Babyrousa celebensis* (VU), Mountain Anoa *Bubalus quarlesi* (EN), Knobbed Hornbill *Rhyticeros cassidix* (VU), and Maleo *Macrocephalon maleo* (CR), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Flores scops-owl *Otus alfredi* (EN) and Flores Hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Oru, *Chloothamnus reholttumianus* (VU), Sumba Cockatoo *Cacatua citrinocristata* (CR), *Santalum Album* (VU), *Eucalyptus urophylla (EN)* species conserved High biodiversity degraded forests rehabilitated on 8,003 ha with reduced LD and restoration (assisted natural regeneration and enrichment planting), increased soil and woody vegetation, associated carbon sequestration, and sustainable forest/savannah management on degraded lands within and adjacent to KBAs Biodiversity is mainstreamed into FMU/KPH implementation, including business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry, and other area-based conservation modalities At least 100,000 ha of assisted regeneration, SFM and agroforestry on social forestry concessions 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines 13 FMU/KPHs operations improved with biodiversity objectives and outcomes on 277,130 ha

	provide improved livelihood options Livelihood opportunities and income generation largely comes from activities that degrade ecosystems, including cash crops such as corn, and agricultural yield increases come from expansion into forests. Poaching species for sale into wildlife and timber markets is lucrative and poorly regulated.	Community-based (PPPP) business ventures (BUMDes) in NTFPs/agroforestry/ bamboo outside of KBAs on APL and Production Forest are rendered operational and investment-ready, and value-chains are developed (linked to financing in Component 3) 10% of population (at least 50% of which is women) in project sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <100,000 ha agroforests
Component 3: Innovative finance for conservation and biodiversity-friendly agroforestry business models, and managing associated knowledge	There has been an absence of finance to support restoration of degraded areas. Without capacity building to enable investment-ready community-level enterprises (BUMDes) and business planning to support biodiversity-friendly businesses, biodiversity-depleting and land degrading activities will continue to be favoured. There is a gap between willing private sector impact investment and currently underdeveloped biodiversity-friendly business models.	GEF incremental finance unlocks private sector finance and de-risks an investment opportunity in biodiversity-friendly business ventures that are linked to BD and LD outcomes. Sequence investments from the private sector, government partners, and local producers, including women?s groups, is necessary, yet relies on grant finance to kick-start the blending and matchmaking of investment vehicles. 45% of investment for biodiversity-friendly businesses from private sector origin More than 30% of new business ventures led by women Recent fiscal policy reform in Indonesia has opened new opportunities in land use sector finance, however, implementation remains nascent. The project will pilot nationally relevant modalities to mainstream biodiversity criteria into village development funds, Regional Incentive Fund, and regional credit unions, to increase funds to be allocated for biodiversity conservation; and to include biodiversity and LDN as a lending criterion. The project will also design and implement new indicators related to biodiversity through the ecological fiscal transfer mechanism. Includes ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets. Target is 2 instruments

Component 4: Monitoring and Evaluation	There is a lack of mainstreaming performance measures related to biodiversity and sustainable land management into government development plans, budgets, and programs, which then define public finance available for such activities, and prioritize those over depleting and exploitative activities. However, there are opportunities, most notably Dana Desa-Village Funds, should incorporate biodiversity and land degradation neutrality as performance measures to access finance. Similarly, agricultural banks lack such performance measures and lending criteria, but there is strong political will (in NTT especially) to address this shortcoming	Project-level M&E systems will seek continuous improvement in meeting biodiversity and LD outcomes?also linked to Community Biodiversity Monitoring Programmes est. under Component 2.

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)
Global environmental benefits (GEFTF) and/or adaptation benefits are retained as in PIF.

The proposed project will improve global environmental benefits (GEBs) related to biodiversity, reducing pressure to convert species habitat, address land degradation, increase resilience in the face of climate change impacts, mitigate climate change, and bring rural people above the poverty line. *Refer to Section 2.1 for details on the global environmental benefits this project seeks to safeguard and restore.*

The project?s contribution to GEF-7 Core Indicators, as defined in the Updated GEF-7 Results Architecture, is shown in Table 6.[92][92] The project will directly impact 510,000 ha of forest and agricultural lands for improved management practices, including restoration of 8,003 ha of degraded land, for biodiversity and LDN. The project will directly benefit an estimated 55,900 people (of which, 22,350 are women), through their engagement in the community-based biodiversity-friendly business

models and ICLP commitments. Over 20 years, the project will contribute an estimated 8,733,744 tCO2e carbon sequestered and emissions avoided in the AFOLU sector.

Table 6: Global environmental benefits generated by the project

	GEF Core Indicator/GEB	Project definition	Project target
3.2	Area of forest and forest land restored	Off farm forested land that will be restored in project landscape	8,003
4	Area of landscapes under improved practices (hectares; excluding protected areas)	Project components and activities target these areas on Protection Forest, Production Forest and APL lands for improved land management practices	510,130
4.1	Area of landscapes under improved management to benefit biodiversity (ha, non-certified)	Includes 208,543 ha KBA, 158,347 ha of Protection forest (in KBA but lacking biodiversity protection), and 120,394 Production forest in or near KBA, which are targeted for improved management for biodiversity	410,130
4.3	Area of landscapes under sustainable land management in production systems	Priority for new social forestry concessions is on APL and production forest, for bamboo agroforestry as a basis for biodiversity-friendly business models based on agricultural production	100,000
6.1	Carbon sequestered or emissions avoided in the AFOLU sector (tCO2e over 20 years)	Estimated emissions reductions total over 20 years (tCO2e)	8,733,744
11	Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	All come from some of the poorest rural areas in Indonesia. Priority is for project interventions to at least bring >10% of the population over the poverty line.	55,900 (of which, 22,350 women)

7) Innovativeness, sustainability and potential for scaling up.

Innovativeness, sustainability and potential for scaling up are retained as in PIF.

The project seeks to embed the ICLP outcomes (which are them reflected in the PPPP Agreements) into Medium-Term Development Plans (RPJMN), district level plans, social forestry plans in 35-year concessions, and FMU plans, operations and investments. A key objective is to demonstrate modes to

bring biodiversity conservation and LDN into FMU processes, in order to influence management objectives over these landscapes and to aligned economic and investment planning in the FMU process. This is important to embed the ICLP goals into the land management processes at landscape scales, influencing the range of stakeholders operating in these landscapes. These are the planning vehicles that also define public sector (and some private sector) budget allocation and investment. The development of biodiversity-friendly business models and value-chains (mostly accomplished through co-finance) leverages private sector investment and sequences investments in a manner that allows for long-term viability of the business models beyond the timeline of the GEF investment (which is 6 years, but the biodiversity-friendly business models need to be operational for much longer to offset investment costs and generate adequate income for producers). As these livelihood opportunities are tied to BD and LD outcomes, the project is seeking to incentivize biodiversity conservation and good land management directly, and then can layer on additional financial benefits to communities through Village Funds and other public allocations.

Replication:

The main elements the project identifies as levers for scaling include: a) demonstrating modalities to mainstream biodiversity and LDN into FMU planning?this is highly relevant to many other landscapes in Indonesia, a country with 93 million ha of forests, which house globally significant biodiversity outside PAs but have no clear management objectives for biodiversity in the protection and production forests; b) finance as a lever for scaling through defining biodiversity and LDN criteria in public finance mechanisms such as Village Funds (also ties into SDG performance), implementing lending and investment instruments which are tied to biodiversity and LDN indicators, such as with agriculture sector lenders/banks, and defining new models for how to operationalize the newly legislated ecological fiscal transfer mechanism. These two elements are priorities to develop proof of concept and the policy/legal basis for replication and scaling to other landscapes in Indonesia. Building the pathways for more communities to pursue these approaches (protecting biodiversity outside protected areas, mainstreaming biodiversity into development and FMU planning, access to finance for biodiversity-friendly business models) for aligned conservation purposes, can be enabled. This will occur first through the piloting and implementation in NTT, Gorontalo and South Sulawesi, resulting in knowledge products being developed and shared. The second pathway is through passage of technical instructions and guidelines on how to activate regulatory decrees, and this would be accomplished in close coordination with partner agencies in the project, and others.

---

[1] Struebig, M. et al, 2022. Safeguarding Imperiled Biodiversity and Evolutionary Processes in the Wallacea Center of Endemism, BioScience, Volume 72, Issue 11, November 2022, Pages 1118?1130, https://doi.org/10.1093/biosci/biac085

[2] CEPF, 2014.

[3] CEPF, 2014.

[4] https://ourworldindata.org/birds

[5] Project: Investing in the Komodo Dragon and other globally threatened species in Flores (IN-FLORES). GEF ID: 10728.

[6] Decree of the Director General of KSDAE No. 180/IV-KKH/2015 on priority endangered species

[7] Flora and Fauna International, 2022. Activity Report on the Results of Installing Surveillance Cameras in Mountain Landscapes Lompobattang-Bawakaraeng, Sinjai District Administration.

[8] Hotspots with regards to plant diversity are defined as regions of the world with at least 1500 endemic vascular plants and less than 30% of their original primary vegetation cover remaining (ref: Myers, N., R.A. Mittermeier, C.G. Mittermeier, G.A. Da Fonseca, J. Kent, 2000. Biodiversity hotspots for conservation priorities. Nature, 403 (6772), p. 853)

[9] Supriatna, J., N. Winarni, A.A. Dwiyahreni, 2015. Primates of Sulawesi: an update on habitat, distribution, population and conservation. Taprobanica, 7 (3) (2015), pp. 170-192

[10] David Frodin, Kew Gardens and Cambridge University.

[11] Cannon C. H. , Summers M. , Harting J. R. & Kessler P. J. A. (2007). Developing conservation priorities based on forest type, condition, and threats in a poorly known ecoregion: Sulawesi, Indonesia . Biotropica 39 (6) : 747 -759 .10.1111/j.1744-7429.2007.00323.x

[12] CEPF, 2014.

[13] Indonesia Ministry of Forestry and ITTO, 2010. Completion report of ITTO project,

ITTO PD 539/09 REV. 1 (F). Promoting conservation of selected tree species currently threatened by habitat disturbance and population depletion.

[14] Pepe, B., K. Surata, F. Suhartono, M. Sipayung, A. Purwanto, W. Dvorak , 2004. Conservation status of natural populations of Eucalyptus urophylla. Food and Agriculture Organisations of the United Nations

[15] *Ibid*

[16] Sutomo, S., Iryadi, R., Sumerta, I. M., 2021. Conservation Status of Agarwood-Producing Species (Gyrinops versteegii) in Indonesia. Biosaintifika: Journal of Biology & Biology Education, 13(2), 149-157.

[17] Sukenti, K. et al, 2021. Ethnobotanical study of Gyrinops versteegii (Gilg.) Domke from Lombok Island, West Nusa Tenggara, Indonesia as an effort in supporting the conservation of agarwood-producing species. Indian Journal of Natural Products and Resources (IJNPR).

[18] Sitepu, I., E. Santoso, M. Turjaman, 2011. Identification of Eaglewood (Gaharu) Tree Species Susceptibility. Indonesia Ministry of Forestry and ITTO, ITTO PD425/06 Rev. 1 (I)

[19] Danarto, S.A. et al, 2021. The genetic diversity of angsana (Pterocarpus indicus) in Purwodadi Botanical Garden Indonesia revealed by rDNA ITS. IOP Conf. Ser.: Earth Environ. Sci. 914 012005.

[20] Irsyad, A., Rindyastuti, R., Yulistyarini, T., Darmayanti, A., Daryono, B. 2020. Genetic variation of agarwood producing tree (Gyrinops versteegii) from Pongkor, Manggarai District, Flores Island, Indonesia using ISSR molecular markers. Biodiversitas Journal of Biological Diversity. 21. 10.13057/biodiv/d210208.

[21] Bystriakova, N., V. Kapos, I. Lysenko, C. Stapleton, 2003. Distribution and conservation status of forest bamboo biodiversity in the Asia-Pacific Region. Biodiversity and Conservation 12: 1833?1841, 2003.

[22] Ervianti, D., E. Widjaja, A. Sedayu, 2019. Bamboo diversity of Sulawesi, Indonesia. Biodiversitas 20 (1): 91-109.

[23] Widjaja, E., 2021. Summary of endemic bamboo in East Nusa Tenggara and Sulawesi.

[24] Zakaria Z, Abinawanto, Angio MH, Supriatna J. 2022. Habitat preferences and site fidelity of Tarsius supriatnai in agricultural area and secondary forest of Popayato-Paguat Landscape (Gorontalo, Indonesia). Biodiversitas 23: 3844-3851.

[25] CEPF?s process involved more than 400 people representing 316 organizations (including national and provincial government agencies; local, national and international research and conservation organizations, and donors).

[26] Critical Ecosystem Partnership Fund, 2014. Ecosystem Profile: Wallacea Biodiversity Hotspot

[27] https://www.cepf.net/stories/what-key-biodiversity-area

[28] CEPF, 2014.

[29] BKSDA, 2022. Inventory of wild plant and animals of KSA and KPA (Malino Nature Park),19 to 25 September 2022

[30] Setiadi, D., 2004. The diversity of tree species in Ruteng Nature Park, East Nusa Tenggara. Biodiversitas. Volume 6, Nomor 2.

[31] https://avibase.bsc-eoc.org/checklist.jsp?region=IDlsal&list=howardmoore

[32] *Ibid*

[33] Pepe, B., K. Surata, F. Suhartono, M. Sipayung, A. Purwanto, W. Dvorak, 2004. Conservation status of natural populations of Eucalyptus Urophylla in Indonesia and international efforts to protect dwindling gene pools. Forest Genetic Resources, No 31.

[34] https://avibase.bsc-eoc.org/checklist.jsp?region=IDlssm

[35] Supriatna, J. M. Shekelle, H.A.H. Fuad, N.L. Winarni, A.A. Dwiyahreni, M. Farid, S. Mariati, C. Margules, B. Prakoso, Z. Zakaria, 2020. Deforestation on the Indonesian island of Sulawesi and the loss of primate habitat, Global Ecology and Conservation. https://doi.org/10.1016/j.gecco.2020.e01205

[36] Zakaria Z, Abinawanto, Angio MH, Supriatna J. 2022. Habitat preferences and site fidelity of Tarsius supriatnai in agricultural area and secondary forest of Popayato-Paguat Landscape (Gorontalo, Indonesia). Biodiversitas 23: 3844-3851.

[37] Refer to report completed during PPG: ?Drivers of deforestation, forest degradation and land degradation: Protection of biodiversity and sustainable land-use in conservation landscapes in South Sulawesi, Gorontalo and East Nusa Tenggara. Project number: GEF ID 10913.?

[38] BirdLife International (2021) Important Bird Areas factsheet: Tuti Adagae.

[39] https://www.bps.go.id/indicator/23/192/1/persentase-penduduk-miskin-menurut-provinsi.html

[40] Wicaksono, E.;Hidayat, A; Nugroho, A., 2017. The Source of Income Inequality in Indonesia: A regression-based Inequality Decomposition, ADB, No. 667, February 2017. https://www.adb.org/sites/default/files/publication/229411/adbi-wp667.pdf

[41] https://kabar24.bisnis.com/read/20141108/78/271398/pemprov-gorontalo-tetapkan-moratorium-transmigran-mulai-2015.

[42] https://sulsel.bps.go.id/indicator/12/83/1/jumlah-penduduk-menurut-kabupaten-kota.html

[43] https://en.wikipedia.org/wiki/Nusantara_(planned_city)

[44] Central Statistics Bureau-BPS, 2020

[45] Indonesia ? Land Degradation Neutrality Report, 2015. https://knowledge.unccd.int/sites/default/files/ldn_targets/2021-02/indonesia_ldn_country_report.pdf

[46] Anwar, S., 2009. Land degradation assessment in drylands in Indonesia. Watershed Management, MOF. http://www.fao.org/3/l1067e/l1067e.pdf

[47] Putri, R.F.. et al 2021. Analysis of land resources balance in Nusa Tenggara Timur Province. IOP Conf. Ser.: Earth Environ. Sci. 686 012006

[48] *Ibid*

[49] Fisher, R., W. Bobanuba, A. Rawambaku, G. Hill, J. Russell-Smith, 2006. Remote sensing of fire regimes in semi-arid Nusa Tenggara Timur, eastern Indonesia: current patterns, future prospects. International Journal of Wildland Fire 15(3) 307-317 https://doi.org/10.1071/WF05083

[50] Regency government estimates the number at 5,000 or more.

[51] Conservation Forest Management Unit (KPHK)(Hutan Konservasi) has the main function of biodiversity conservation for plants and animals and their ecosystems. Whereas, the Protected Forest Management Unit (KPHL)(Hutan Lindung), has the main function of protecting the supporting system to regulate water, prevent flooding, control erosion, prevent seawater intrusion and maintain land fertility.

[52] As per Critical Ecosystem Partnership Fund, 2014. Wallacea Ecosystem Profile.

[53] Direktorat Bina Pengelolaan Ekosistem Esensial, 2020. Laporan Inventarisasi dan verifikasi kawasan dengan nilai kehati tinggi di luar Kawasan Suaka Alam (KSA) Kawasan Pelestarian Alam (KPA) dan Taman Buru (TB) tahun 2020.

[54] Direktorat Bina Pengelolaan Ekosistem Esensial, 2020.

[55] Voigt et al 2021. Emerging threats from deforestation and forest fragmentation in the Wallacea centre of endemism. Environ. Res. Lett. 16 094048

[56] CEPF, 2014

[57] Siscawati M, Banjade MR, Liswanti N, Herawati T, Mwangi E, Wulandari C, Tjoa M and Silaya T. 2017. Overview of forest tenure reforms in Indonesia. Working Paper 223. Bogor, Indonesia: CIFOR.

[58] Sahide, M.A.K.; Supratman, S.; Maryudi, A.; Kim, Y.S.; Giessen, L. Decentralisation policy as recentralisation strategy: Forest management units and community forestry in Indonesia. Int. For. Rev. 2016, 18, 78?95.

[59] Siscawati et al, 2017.

[60] Balai Besar Konservasi Sumber Daya Alam Sulawesi Selatan, 2020. Rencana Strategis Tahun 2020-2024.

[61] https://pubdocs.worldbank.org/en/526161531832144729/1944-XFIPID019A-Indonesia-Approved-Decision.pdf

[62] Direktorat Bina Pengelolaan Ekosistem Esensial, 2020. Laporan Inventarisasi dan verifikasi kawasan dengan nilai kehati tinggi di luar Kawasan Suaka Alam (KSA) Kawasan Pelestarian Alam (KPA) dan Taman Buru (TB) tahun 2020.

[63] Announcement: https://floresfiles.com/2021/05/26/ntt-siapkan-rp-650-m-budidaya-bambu-vbl-siapa-yang-paling-banyak-bambu-dia-paling-kaya/

[64] https://fmnrhub.com.au/wp-content/uploads/2022/02/Indonesia-Rural-Economic-Development-Project-Impact-Brief.pdf

[65] Indonesia Land Degradation Neutrality National Report, 2015, (former) Ministry of Forestry, Government of Indonesia

[66] As per Forest Law No. 41/1999 and Government Regulation ? PP No. 3/2008

[67] The State of Indonesia Forest 2020, Ministry of Environment and Forestry, 2020

[68] Sahide, M.A.K, S. Supratman, A. Maryudi, Y.-S. Kim and L. Giessen, 2016. Decentralisation policy as recentralisation strategy: forest management units and community forestry in Indonesia. International Forestry Review Vol.18(1).

[69] Kim, Y-S, J.S. Bae, L.A. Fisher, S. Latifah, M. Afifi, S M Lee, I.A. Kim, 2016. Indonesia's Forest Management Units: Effective intermediaries in REDD + implementation? Forest Policy and Economics 62 (2016) 69?77

[70] Direktorat Bina Pengelolaan Ekosistem Esensial, 2020. Laporan Inventarisasi dan verifikasi kawasan dengan nilai kehati tinggi di luar Kawasan Suaka Alam (KSA) Kawasan Pelestarian Alam (KPA) dan Taman Buru (TB) tahun 2020.

[71] Balai Besar Konservasi Sumber Daya Alam Sulawesi Selatan, 2020. Rencana Strategis Tahun 2020-2024.

[72] Constitutional Court of the Republic of Indonesia, 2012. Number 35/PUU-X/2012. See: Link

[73] New York Declaration on Forests, 2021. Taking stock of national climate action for forests: 2021 NYDF Assessment report.

[74] United Nations (2021). State of the World?s Adat Peoples: Rights to Lands, Territories and

Resources. ST/ESA/375.

[75] IPBES (2019). Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. https://ipbes.net/global-assessment

[76] *Ibid*

[77] Rakatama, A, R. Pandit, 2020. ?Reviewing Social Forestry Schemes in Indonesia: Opportunities and Challenges.? Forest Policy and Economics 111. https://doi.org/10.1016/j.forpol.2019.102052.

[78] See: https://www.cbd.int/doc/c/9b1f/759a/dfcee171bd46b06cc91f6a0d/sbstta-22-l-02-en.pdf

[79] Peraturan Menteri Lingkungan hidup dan Kehutanan, Republik Indonesia, No. 9, 2021: Pengelolaan Perhutanan Sosial

[80] Sahide, M, M. Fisher, J.T. Erbaugh, D. Intarini, W. Dharmiasih, M. Makmur, F. Faturachmat, B. Verheijen, A. Maryudi, 2020. The boom of social forestry policy and the bust of social forests in Indonesia: Developing and applying an access-exclusion framework to assess policy outcomes,

Forest Policy and Economics, https://doi.org/10.1016/j.forpol.2020.102290.

[81] Peraturan Menteri Lingkungan hidup dan Kehutanan, Republik Indonesia, No. 9, 2021: Pengelolaan Perhutanan Sosial

[82] Flora and Fauna International, 2022. Activity Report on the Results of Installing Surveillance Cameras in Mountain Landscapes Lompobattang-Bawakaraeng, Sinjai District Administration.

[83] TLM has 25 branches throughout NTT with 300,000 members and assets of approx. USD 35 million. http://tlmfoundation.or.id/id/unit-usaha-kami/ksp-tlm/
[84] https://www.banksulutgo.co.id/ https://banksulselbar.co.id/ and https://www.bpdntt.co.id/id
[85] This is in addition to their introductory Kredit Merdeka program lending Rp. 1-5 million for one year with zero percent interest.
[86] https://www.viva.co.id/english/1600737-labuan-bajo-government-builds-komodo-bamboo-campus
[87] https://bca.co.id
[88] https://terratai.asia/
[89] https://karmafund.id/
[90] https://hivos.org/
[91] https://indonesia.rikolto.org/
[92] GEF Assembly Background Note: Updated GEF-7 Results Architecture. June 2018

1b. Project Map and Coordinates

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

The Geo-coordinates of the five sites are as follows:

Gorontalo: Popayato - Paguat

Central coordinates: Lat: 0.80 Long: 121.90

Lompobattang

Central coordinates: Lat: -5.33 Long: 119.93

Todo Repok/Ruteng

Central coordinates: Lat: -8.75 Long: 120.30 and Lat: -8.65 Long: 120.56

Alor

Central coordinates: Lat: -8.39 Long: 124.46 and Lat: -8.22 Long: 124.79

Sumba

Central Coordinates from Lat: -10.23 Long: 120.44 to Lat: -9.98 Long: 120.49

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.

Please refer to the Stakeholder Engagement Plan completed during the PPG for details on how stakeholders were consulted, key aspects that influenced project design, and more elaboration on key roles stakeholders will have in the project execution. The PMU Governance Liaison, Senior Advisor and Policy Specialist will regularly liaise with the central government level Ministries as Directorate Generals (and Deputy?s). Consultations will occur monthly, and any issues requiring discussion will be brought to the PSC for resolution. Stakeholders outside government will also be invited to attend the PSC to share ideas and have input into decisions.

The Programme Management Unit, via the Programme Coordinator and Site Coordinators, will regularly liaise with project stakeholders at Provincial, kabupaten and kecamatan levels. The stakeholder list will be adjusted for each site as new stakeholders are identified, and stakeholder groups will be further identified (especially women, adat and youth).

A key philosophical and practical approach the project will implement is the vision put forth by Wiratno, former Director General of Natural Resources and Ecosystem Conservation (2017?2022) in his book ?*Ten (new) ways to manage conservation areas in Indonesia: developing learning organizations*.? The ten ways are: (1) Community as a Subject; (2) Respecting Human Rights; (3) Collaboration Across Echelon I of the Ministry of Environment and Forestry; (4) Cooperation Across Ministries; (5) Respecting Cultural and Customary Values; (6) Multilevel Leadership; (7) Scientific-Based Decision Support System; (8) Resort (Field) Based Management; (9) Rewards and Mentorship; and (10) Learning Organization. The approach provides a blueprint for inclusive conservation which intrinsically engages communities in meaningful inclusion in conservation activities and stewardship. Details on the participation on key stakeholders is detailed in the following table:

Table: Stakeholder participation in project implementation

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? MoEF ? Office of the Minister	? Ministry of Environment and Forestry	? MoEF is the Lead National Executing Agency on the project. The Office of the Minister is crucial to coordinate across the Directorate Generals within MoEF	? Overview: Will direct KSDAE as Lead EA and across the DGs ? Components: All ? Mode: Oversight ? Timing: All years, from inception to completion ? Gender: N/A
? MoEF - DG Nature Resources and Ecosystem Conservation (KSDAE)	? Nature Resources and Ecosystem Conservation: protecting biodiversity outside PAs	? Lead National Executing Agency on the project, and focal agency for biodiversity conservation with the Ministry of Environment and Forestry	? Overview: Has primacy on biodiversity aspects of projects, is key liaison to BBKSDAs ? Components: All ? Mode: Chair of PSC ? Timing: All years, from inception to completion ? Gender: N/A
? MoEF - Program, Evaluation, Legal, and Technical Cooperation	? Program, Evaluation, Legal, and Technical Cooperation on behalf of MoEF	? Support DG, programme evaluation, review	? Overview: Supports KSDAE in project execution and evaluation, has role in PSC ? Components: All ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? MoEF - Instrument Standardization Agency ? (BSI-LHK)	? Provision of Forest Areas & Procedures for Environmental Control Standards ? Oversee the Implementation of Omnibus Law ? Monitoring the Quality of Social and Economic Sustainable Forest and Environmental Management	? Implements activities under the Omnibus Law Number 11 of 2020, Article 27, on business licenses of protected forest and Article 29 on business licenses on production forest. Will support business licenses and approvals for social forestry management (HTR, HD, HKM, Hutan Adat, Partnership)	? Overview: Key role in standards and social forestry ? Components: Outcome1 1.1 and 1.2 ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A
? MoEF ? DG Watershed Control and Forest Rehabilitation (Ditjen PDASRH)	? Restoration implementation: Has 100 priority areas in East Nusa Tenggara for forest rehabilitation and watershed protection. Provides seedlings, capacity and assisting on planning, planting and monitoring.	? Co-finance for restoration activities ? Will supported targeted communities as part of the rehabilitation program in Alor, East Sumba, Manggarai-Ruteng	? Overview: Planning and implementing restoration, NTT is priority ? Components: Outcome 1.1, 2.1 and Output 2.1.3 ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A
? MoEF ? DG Social Forestry and Environmental Partnerships	? Promoting social forestry to achieve national target	? Social forestry partnerships, 35-year concessions, best practices on community engagement	? Overview: Key role in social forestry and community partnerships ? Components: Outcome1 1.1 and 1.2 ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? MoEF ? Climate Change	? Climate change mitigation and adaptation, Indonesia?s FoLU Net Sink 2030 and NDC targets	? Co-finance supporting FoLU Net Sink 2030 activity areas in NTT, NDC implementation	? Overview: Key role in FoLU Net Sink component of project ? Components: All ? Mode: May join PSC ? Timing: Throughout project ? Gender: N/A
? MoEF - Directorate of Sustainable Forest Management	? Oversees sustainable forest management nationally, particularly on production forest	? Procedures for engagement with Forest Management Units, integrating biodiversity into production forest areas	? Overview: Advise and technical inputs on FMU/KPH implementation ? Components: Outputs 2.1.1 and 2.1.3 ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A
? MoEF - Directorate for Biodiversity Conservation (KKH) ?	? Policy and technical guidance on biodiversity (though it is KSDAE which oversees biodiversity outside PAs)	? Advise and consultation, especially on safeguarding genetics endemic to Indonesia	? Overview: Advise and technical inputs on biodiversity ? Components: Outcome 1.1, 2.1 ? Mode: May join PSC ? Timing: Throughout project ? Gender: N/A

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? MoEF - Directorate of Essential Ecosystem Management (BPEE)	? Policy and technical guidance and coordination for Essential ecosystem areas (KEE). RPJMN 2020 ? 2024 targets protecting 43 million ha of the 77.1 million ha of indicative KEE area, establishing 45 new KEE areas	? Areas with a conservation function but are located outside conservation areas are KEEs. KEE management has been voluntary and has lacked the regulatory frameworks. BPEE will provide guidance to improve the regulation and management of KEEs, project will define where these are in project area.	? Overview: Identify KEEs in project area, improve management ? Components: Outcome 1.1, 2.1 ? Mode: Member of PSC ? Timing: Throughout project ? Gender: N/A
? Ministry of Cooperatives and Small Medium Sized Enterprises-Lembaga Pendanaan Dana Bergulir (LPDB)	? Supporting public investment in and capacity of cooperatives and SMEs in Indonesia	? Investment in post-harvest storage, processing and access to markets	? Overview: Co-financier ? Components: Outcome 2.2.1, 3.1.1 ? Mode: Grant investments ? Timing: All ? Gender: N/A
? Ministry of Finance - Directorate General of Budget Financing and Risk Management	? Ministry overseeing public finance, incentives, grants	? Oversees Environmental Trust Fund (BPDLH), which is a source of financing for the project ?	? Overview: Advisor on finance aspects, co-financier, implementing fiscal policy reform ? Components: Outputs 2.2.1, Outputs 3.1.1, 3.1.2, 3.1.3 ? Mode: Advisory, PSC ? Timing: All ? Gender: N/A

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? East Nusa Tenggara Province - Natural Resources Conservation (BBKSDA) ?	? Provincial focal point for KSDAE in NTT. On the ground awareness of challenges, barriers, and solutions for biodiversity conservation and shared best practices working with local communities. Help convene stakeholders	? Provincial partner for implementation, has mandate to protect biodiversity outside PAs	? Overview: Key partner to implement policy and governance aspects of biodiversity protection outside PAs, convene stakeholders ? Components: Outcome 1.1, 2.1 ? Mode: PSC and Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? Gorontalo Province - Division of Natural Resources Conservation (BBKSDA)	? Provincial focal point for KSDAE in Gorontalo. On the ground awareness of challenges, barriers, and solutions for biodiversity conservation and shared best practices working with local communities. Help convene stakeholders	? Provincial partner for implementation, has mandate to protect biodiversity outside Pas	? Overview: Key partner to implement policy and governance aspects of biodiversity protection outside PAs, convene stakeholders ? Components: Outcome 1.1, 2.1 ? Mode: PSC and Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? South Sulawesi Province - Division of Natural Resources Conservation (BBKSDA)	? Provincial focal point for KSDAE in South Sulawesi. On the ground awareness of challenges, barriers, and solutions for biodiversity conservation and shared best practices working with local communities. Help convene stakeholders	? Provincial partner for implementation, has mandate to protect biodiversity outside PAs	? Overview: Key partner to implement policy and governance aspects of biodiversity protection outside PAs, convene stakeholders ? Components: Outcome 1.1, 2.1 ? Mode: PSC and Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? Provincial Offices of Environment and Forestry	? Implementing FMU planning, liaising with forest concession holders, implementing MoEF directives on forestry	? Provincial partner on forest management unit planning, implementing biodiversity and land degradation priorities with kabupaten offices, convening stakeholders	? Overview: Key partner to implement FMU planning elements, convene stakeholders ? Components: Outputs 1.1.2, 1.1.3, 2.1.2, 2.1.3 ? Mode: PSC and Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? Forest Management Units ? in each Regency	? Implements FMU planning, liaising with forest concession holders, planning (regencies no longer grant concessions)	? Regency-level partner to implement FMU planning changes, convening stakeholders, troubleshooting implementation	? Overview: Dialogue and consultation on each FMU, convene stakeholders ? Components: Outputs 1.1.2, 1.1.3, 2.1.2, 2.1.3 ? Mode: Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Provincial Government of East Nusa Tenggara, Gorontalo and South Sulawesi	? The leader of provincial level government that provide political support to galvanize the program across provincial agencies, regency and districts under their administration and advocate for targeted investment by central government	? Convening Provincial working groups, coordinating between provincial government agencies, helping to overcome sectoral conflicts	? Overview: Convening, political leadership, troubleshooting sectoral conflict ? Components: All ? Mode: Provincial working groups, PSC if they choose to join ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? BAPPEDA - Gorontalo	? Provincial level planning agency	? Convening across sectors, overcoming sectoral conflict (water, mining, forestry, agric)	? Overview: Convening, political leadership, troubleshooting sectoral conflict, financing ? Components: All ? Mode: Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? BAPPEDA ? South Sulawesi	? Provincial level planning agency	? Convening across sectors, overcoming sectoral conflict (tourism, forestry, agric., water)	? Overview: Convening, political leadership, troubleshooting sectoral conflict, financing ? Components: All ? Mode: Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? BAPPEDA ? East Nusa Tenggara	? Provincial level planning agency	? Convening across sectors, overcoming sectoral conflict (water, livestock/pasture, forestry, agric)	? Overview: Convening, political leadership, troubleshooting sectoral conflict, financing ? Components: All ? Mode: Provincial working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? Bupati?s ? Regency government head	? Regency level government head	? Political support, convening across kabupaten departments/agencies, implementation modalities, stakeholder engagement, troubleshooting implementation bottlenecks	? Overview: Political leadership at regency level, convening stakeholders and departments, troubleshooting sectoral conflict ? Components: All ? Mode: Provincial working groups, regency-level working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity
? Village Kepala Desa	? Head of village government	? Political support, convening community groups, village council members, stakeholder engagement, troubleshooting implementation bottlenecks. Key for defining options for allocation of Dana Desa (Village Funds) at local level to support project activities.	? Overview: Political leadership at village level, convening stakeholders and departments, troubleshooting sectoral conflict at village level ? Components: All ? Mode: Village level meetings, Regency working groups ? Timing: All ? Gender: Helping to identify women stakeholders and groups, cultural sensitivity

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Bank NTT	? Provincial government development bank and focuses on micro and SME development	? Source of micro-financing for individuals, commercial lending to groups, cooperatives and businesses. Works with EBF on NTT women?s bamboo seedling nursery development. ? Pending bank due diligence on village-level beneficiaries, will provide individual small credit plans, investment and working capital lending to groups, cooperatives and businesses. Also supporting Provincial cattle programme, thus fiscal incentives that drive better pasture management is a priority for project.	? Overview: Lending to individuals, groups, cooperatives and businesses ? Components: Outputs 2.2.1, 3.1.1, 3.1.2 ? Mode: Commercial bank lending to individuals, groups, cooperatives and businesses upon successful diligence ? Timing: Once biodiversity-friendly business models are bankable ? Gender: Project will support women?s access to finance
? CIMB Niaga	? Commercial bank	? Has already supported EBF with $100,000 for EBFs Bamboo Agroforestry Learning Center in Manggarai, NTT. Anticipates additional grant and loans to the project of $1.5 million	? Overview: Lending to individuals, cooperatives, businesses ? Components: Outputs 2.2.1, 3.1.1, 3.1.2 ? Mode: Grant and loans ? Timing: Immediately, and lending after due diligence is complete ? Gender: Project will support women?s access to finance

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? TLM Cooperative	? Savings & Loan Cooperative, encourage saving and investment amongst middle and low income people in East Nusa Tenggara. Has 300,000 members. Also has a group loan program for women, for groups of 5 - 30 women.	? Collaborate in target project villages for women producers/ businesses. Training in household & business financial management across all commodities and activities.	? Overview: Lending, capacity-building ? Components: Outputs 2.2.1, 3.1.1, 3.1.2 ? Mode: Consultation, loans ? Timing: Once biodiversity-friendly business models are bankable ? Gender: Has lending programme for women and women-led businesses
? Aliansi Masyarakat Adat Nusantara (AMAN)	? Indigenous peoples' human rights and advocacy organization founded in 1999. AMAN has established 21 Regional Chapters and 114 Regional Chapters in 33 provinces.	? Provides contacts and connections to adat communities in project areas, helps ensure comprehensive outreach to adat, joint fundraising to support adat community interests	? Overview: Consultation, advise ? Components: All ? Mode: Consultation, may attend PSC ? Timing: All ? Gender: May have advise, but will defer to more local levels
? AMAN regional and local chapters	? Indigenous peoples' human rights and advocacy organization founded in 1999. AMAN has established 21 Regional Chapters and 114 Regional Chapters in 33 provinces.	? Regional and local chapters have more comprehensive sense of who to involve from adat communities, will be a partner in implementing, to ensure the project implements FPIC and supports adat community interests.	? Overview: Consultation, troubleshooting implementation, reaching community groups ? Components: All ? Mode: Consultation, regency working groups ? Timing: All ? Gender: Advise on appropriate ways to include women

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Adat community groups (e.g. Waerebo, Todo in Todo-Repok site)	? Each site has individual adat community groups, some of which are more defined than others	? Key role in social forestry, tenure issues, land management, community-based biodiversity-friendly business models. FPIC will be carried out, but also accommodation of adat concerns and interests	? Overview: Adat are key partners in all aspects of project ? Components: All ? Mode: Community consultation ? Timing: All ? Gender: Localized practices will be evaluated to best determine how to engage women
? Walhi	? The Indonesian Forum for Living Environment is an Indonesian environmental non-governmental organization, which is part of the Friends of the Earth International network. WALHI was founded in 1980 and joined FoEI in 1989. WALHI is the largest and oldest environmental advocacy NGO in Indonesia.	? Knowledge of biodiversity, land degradation, and community aspects. In PPG phase, Walhi contributed many insights, thus consultation and sharing will continue through the project	? Overview: A CSO partner in implementation, in all sites ? Components: All ? Mode: Consultation and information sharing ? Timing: All ? Gender: Help identify appropriate ways to include women

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Wulang Pari Kopi	? Private Sector coffee producer ? Manggarai, Flores	? Buys local coffee (Arabica and Robusta), processes a range of coffees including high-value specialty Arabica through Robusta. Sells green beans and some roasted product. ? Will expand number of farmer groups in target areas, improve capacity and purchases of local coffee. ? Support production capacity & financing for investment, facilitate marketing	? Overview: Business that will buy from local farmers, help process and get to markets ? Components: Outcome 2 ? Mode: Partnership ? Timing: Year 2,3,4 ? Gender: Increase emphasis on women farmers
? PT. Mega Inovasi Organik	? Vanilla processor in Alor. Works with farmer groups of men and women to develop quality vanilla production capacity, buys and processes for high quality export to Europe	? Expand number of groups, green bean sales and processing. ? Facilitate access to international markets.	? Overview: Business processing/selling vanilla ? Components: Outcome 2 ? Mode: Partnership ? Timing: Early years of project ? Gender: Increase emphasis on women farmers
? PT Talasi	? Established offtaker for high quality food commodities	? Co-finance commitment for $30 million, expanding cashew investment in Sumba, planned cashew, kenari and vanilla investment in Alor, processing facilities, product certification, product off-take	? Overview: Key private sector partner, co-financier, off-taker ? Components: Outcome 2, Output 3.1.1 ? Mode: Partnership ? Timing: ? Gender:

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Burung Indonesia	? Birdlife Indonesia supports conservation action in forest management and ecosystem restoration, policy advocacy, research and monitoring, information management, conservation awareness, etc. It is also responsible for data management and conservation status of the endemic flora and fauna, scientific monitoring and management, involvement of local communities in the biodiversity	? Partner for implementation in Gorontalo and Lompobattang, provide technical assistance for biodiversity in all sites	? Overview: Project partner on biodiversity ? Components: All ? Mode: Project partner ? Timing: All ? Gender: Will follow gender action plan in implementation
? Blue Forests	? Aim to increase the social-economic and ecological resilience of critical watershed systems across the mountains and seas, mostly mangrove restoration. Based in Makassar, South Sulawesi.	? Has a Learning Center for Bamboo agroforestry in Maros; can support the capacity building of farmers.	? Overview: Partner for training ? Components: Output 2.2.1 ? Mode: Workshops ? Timing: First 3 years ? Gender: Help train women

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Lingkar Temu Kabupaten Lestari (LTKL)	? Indonesia's Sustainable Districts Association	? Mainstreaming biodiversity in public finance (intergovernmental fiscal transfers), including ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets	? Overview: Partner on biodiversity and LD public financing ? Components: Outputs 3.1.3 ? Mode: Partnership, regency workshops, provincial workshops ? Timing: All ? Gender:N/A
? Wahana Visi Indonesia ?	? NGO ? community development	? Established support program in Alor for Kenari sales. Has income development program in Alor to encourage kenari collection and processing, currently constrained by limited access to markets. ? Project can support development of links to buyers and access to markets. ? Kenari collection and processing is typically done by women.	? Overview: Partner in kenari areas ? Components: Outcomes 2 and Output 3.1 ? Mode: Partnership, community engagement ? Timing: All ? Gender: Supporting women kenari pickers/processing ?
? Satu Visi Foundation	? NGO ? supporting Adat communities on Sumba Island ? Has been supported by the World Bank to map natural resources and customary community areas around Sumba. ?	? Will map natural resources and customary community areas in East Sumba in a sub-grant in the project. Help facilitate meetings with community groups, socially sensitive ways to engage women	? Overview: Partner in adat/women engagement in East Sumba ? Components: All ? Mode: Partnership, community convenings, regency workshops ? Timing: All ? Gender: Culturally appropriate women empowerment

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Yayasan PEKKA (women headed household)	? NGO supporting women heads of household in Indonesia	? Local partner implementation in Manggarai, East Nusa Tenggara	? Overview: Partner in reaching women heads of households in todo-Repok/Ruteng ? Components: All ? Mode: Partnership, community convenings, regency workshops ? Timing: All ? Gender: Culturally appropriate women empowerment
? Yayasan Adudu Nantu International (YANI)	? Conservation work in and around Nantu Forest, Gorontalo. Initiated by Dr Lynn Clayton's Ph.D study on Babirusa in 1988, since has grown to include other researchers. Interested in protecting germplasm, protection of Pahuman watershed	? Technical assistance on biodiversity values between Nantu and Panua. ? Special knowledge on Babirusa and other wildlife habitat requirements	? Overview: Technical assistance on biodiversity values ? Components: Outcome 1.1, Outputs 2.1.1, 2.1.2 ? Mode: Technical assistance ? Timing: First 3 years of project ? Gender: N/A
? Threads of Life	? Work directly with over 1,000 women in more than 35 groups on 12 Indonesian islands. Active in Todo-Repok/Ruteng and Sumba sites.	? Help groups cultivate natural dye and mordant plants in agroforestry systems, continue indigenous weaving practices, find markets for weaving. Partner to intercrop dye/weaving materials, convene women weaver groups	? Overview: Partner to intercrop dye/weaving materials, convene women weaver groups ? Components: Outcomes 2 and Output 3.1 ? Mode: technical assistance and convening ? Timing: First 5 years ? Gender: Works predominantly with women

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Jevara	? Company works across the supply chain to sustain Indonesia?s forgotten food biodiversity heritage by delivering it to national and international market. Processes high quality food products and sells retail in domestic and international markets. Non-profit arm works with communities to develop capacity and market access, especially women producers. ?	? Will assess production and market options, identify needs, recommend linkages between community producers and private sector off-takers.	? Overview: Project implementation partner ? Components: Outcomes 2 and Output 3.1 ? Mode: Partnership ? Timing: All ? Gender: Will promote women?s leadership in tourism development ?
? Kreologi	? Spun off from DuAnyam. Non-profit works with communities to develop capacity and market access, especially with women producers. Sectors are food products, weaving (craft), tourism	? Will develop tourism business development and product plans ?	? Overview: Project partner to implement eco-tourism activities (and some food products, TBD) ? Components: Outcome 2 ? Mode: Partnership ? Timing: All ? Gender: Will promote women?s leadership in tourism development ?

? Institution/organization	? Mission/Objectives	? Prospective role in project	? Engagement in implementation
? Local coffee producer associations (e.g. Topidi Coffee Producers in South Sulawesi)	? Topidi Coffee is a collaboration among Arabica producers in an adat community in Lompobattang, and is an example of producer groups that exist in many project sites. ?	? Project support to improve processing, expand purchases, improve marketing and facilitate access to investment finance. The group is also a good candidate for community ecotourism development. ? Expand training to women and help them develop meaningful economic roles ?	? Overview: Project partner for biodiversity-friendly coffee production ? Components: Outcome 2 ? Mode: Partnership ? Timing: All ? Gender: Will be encouraged to include women in decision-making and access to profits ?
? Nusa Cendana University	? Based in Kupang, NTT. Researchers in Department of Forestry, Faculty of Agriculture, have on-going research in the project areas in NTT	? Research on baselines, species and ecological function, ethnographic aspects	? Overview: Research partner on baselines ? Components: Outcome 1 ? Mode: Research ? Timing: First 3 years ? Gender: Will engage women researchers
? Hasanuddin University	? Based in Makassar, South Sulawesi	? Research conducted on baselines, also tourism and economic impacts	? Overview: Research partner on baselines ? Components: Outcome 1 ? Mode: Research ? Timing: First 3 years ? Gender: Will seek to engage women researchers

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

Making Available Information

The project will endeavor to make information available to the public to allow stakeholders to get to know and understand the project intentions, but also to raise the profile of the importance of biodiversity and addressing land degradation to the broader public. The project will produce knowledge products on a regular basis, in Bahasa Indonesia and to the degree possible, also in local languages, to ensure that all interested people in the sites and at all levels can learn of the project and utilize the information to develop capacities, grow networks, and increase buy-in to the project goals and objectives. As the project seeks to influence driver sectors and related activities, it is important that knowledge is disseminated in a manner that influences behaviour. This intention will drive the development of knowledge products, finding ways to reach key stakeholder groups through trusted sources (churches, farmer cooperatives) and to also reach key stakeholder groups (youth).

All Outputs will include a communications component, to be further defined during implementation. For instance, in Outcome 1.1, effort will be made to publicize the important species in each project site, and to create broad-based knowledge platforms with all levels of government under Output 1.1.2.3.

On an ongoing basis, the project will have a routine disclosure and consultation on the project?s environmental and socio-economic performance including grievances and other new emerging issues on the project. The disclosures will be done with all stakeholders through project briefs or annual reporting through brochures. While providing this disclosure, the project will also provide:

? An update on the Project achievements and how its contributing to protecting key species habitat, mainstreaming biodiversity into key sectors, and addressing land degradation

? An overview of the stakeholder engagement process and how affected parties can participate and provide feedback through meeting or other avenues;

? Site-specific stories that can be articulated through the project implementation, but importantly also through promotion of the biodiversity-friendly business models, such as *Wallacea Gourmet* product branding.

Monitoring and Reporting

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures for GEF projects. Project monitoring and reporting requirements, and templates are an integral part of the UNEP legal instrument, to be signed by the EA and UNEP, ensuring it is consistent with the GEF Monitoring and Evaluation policy.

As lead Project Executing Agency, Environmental Bamboo Foundation is responsible for the project M&E Plan, also referred to in this document as the Monitoring, Evaluation and Learning (MEL) System. Environmental Bamboo Foundation will lead in completing the design of the project?s M&E Plan, including the spatial data systems to track improvements in land management, GHG emissions reduced, and socio-economic indicators. The Project Results Framework presented in Appendix 4

includes SMART indicators for the project?s objective and expected outcomes, mid-term and end-of-project targets and Means of Verification for each indicator, including specifically related to gender, including the GEF Core Indicators. Key assumptions and risks are specified for each Outcome. These indicators plus the key deliverables and benchmarks summarised in Appendix 6 are the main metrics and tools for assessing project implementation progress, and whether project objectives and expected outcomes are being achieved. Costs associated with implementing the M&E Plan are summarized in Appendix 7 and are integrated in the overall project budget.

The draft M&E Plan will be discussed and revised as necessary in a M&E workshop at project inception. The M&E workshop will ensure that project partners and staff understand and agree with their roles and responsibilities with regards to project monitoring and evaluation, and how performance will be measured, and iterative adjustments made over implementation.

Day-to-day implementation of the M&E Plan will be coordinated by the PMU, with the project coordinator being responsible for the correct design and implementation of the Plan. The MEL consultant will provide technical support. All the project execution partners will have clear responsibilities to collect and report specific information to track workplan implementation progress, report implementation challenges/risks and actions taken to address them, and on field data gathering required to generate indicator values on project objective and outcomes. The Project Coordinator will also inform UNEP of any risks, delays and challenges faced during implementation so that the appropriate support or corrective measures that have been or can be adopted in a timely fashion.

The Project Coordinator, Technical Advisor and Site Coordinators will make quarterly reports on progress to the Project Steering Committee members and interested central and provincial government agencies. Ministries and State government departments and will discuss project strategies with them. Based on feedback, the PMU will make recommendations concerning the need to revise any aspects of the Results Framework or the M&E Plan to the Project Steering Committee. Any such changes will be advised in advance, by the Project Coordinator to UNEP?s Task Manager, which has responsibility to ensure that the project meets UNEP and GEF policies and procedures. The MoEF and UNEP will also review the quality of draft project outputs (selected key final outputs), provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of technical outputs and publications.

Baseline values for species and habitats will be refined and affirmed early in implementation, under Output 1.1.1.4, under the task of completing the landscape and species protection analysis in the KBA/IBAs and surrounding areas, to confirm priority species and locally specific conservation action, the needed ecological and spatial context of habitat protection and restoration, and optimised land-use investments. This is when the detailed plans for restoration, including species, capacity, and longer-term management to ensure success is completed. Output 1.1.1.8 provides for the analyses of future climate change impacts in relation to biodiversity values, agricultural production, water, livelihood requirements, for ICLP planning. This is an important activity to test assumptions and also gauge the degree to which future climate impacts may affect project targets, and how the project can adapt accordingly.

Importantly, the project seeks to build community participation in monitoring (to be pursued longer than just the project lifespan). Outcome 1.1.1.9 will be engaged early on during project implementation to develop plans for community-based monitoring and other monitoring systems required for the

project to effectively address driver pressure and report on change in the status of selected species at mid-term review and project completion. The project will build capacity of community-based ?guardian observers? who will be trained to collect information at site levels and report on progress over time.

Baseline values for socio-economic indicators will be completed under Output 1.2.1.5 as livelihoods assessments completed at each site during project inception. This is for purposes of measuring the impacts of the biodiversity-friendly business models, and ensuring the project achieves its livelihood and gender targets. All baseline data gaps will be addressed during the first year of project implementation.

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager?s supervision will be on outcome monitoring, without neglecting project financial management, progress in the planned activities, and assessment of the quality of deliverables for selected items key to the project. Progress on delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored by the PMU, project partners and UNEP. Risk assessment and rating is an integral part of the PIR. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

In line with UNEP Evaluation Policy and the GEF?s Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation (TE) and, additionally, a Mid-Term Review (MTR) The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office.

The mid-term review will take place on the first half of year 4, led by UNEP. The review will include all parameters included in the standards for MTR and TE evaluation by UNEP (and based on guidelines by the GEF Evaluation Office), and will be carried out using a participatory approach, in which partners participating in the project will be fully involved. The terms of reference for the review will be agreed with KSDAE. The Project Steering Committee will develop a management response to the review recommendations, along with an implementation plan, and will monitor whether the agreed recommendations are being carried out. Additionally, the PMU will undertake logistical arrangements for and accompany a UNEP supervisory mission, if it chooses to undertake one at any time during the project implementation.

In-line with UNEP?s Evaluation Policies and the GEF?s Monitoring and Evaluation Policy, the project will be subject to a Terminal Evaluation (TE).. Key decision points in the evaluation process will be made jointly by the Evaluation Offices in a collaborative manner [finalisation of Evaluation ToRs, selection of evaluation consultants, review of draft report and acceptance of final report].

The Terminal Evaluation will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among MoEF, KSDAE, EBF, UNEP and GEF, executing partners and other stakeholders.

The Terminal Evaluation report will be sent to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Offices in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process.

Additional to the project?s formal MEL system, the continuous liaison between the project team and central and provincial government officials enables prompt integration of project learning into the government?s discussions on policies and programmes. The project will maintain a regular cycle of communication, sharing and learning.

Stakeholder Response and Grievance Redress Mechanism

The project aims to be stakeholder responsive and relevant. For any perceived concerns and negative impacts caused by the project to the stakeholders, the PMU project team, government, the UNEP, and the GEF are willing to hear and address them in an impartial and transparent manner. Project information and related safeguard risks and risk management measures are available in https://www.thegef.org/projects-operations/projects/10385 and htpps://open.unep.org

UNEP?s measure to handle complaint-related matters is called the Stakeholder Response Mechanism (SRM). (https://wedocs.unep.org/handle/20.500.11822/32023;jsessionid=4F4541EE84AD069E5AB404310E96AA5E) provides further details on the SRM eligibility and related process. Eligible cases should meet the following criteria:

? Complaints raised for currently proposed or implemented UNEP projects

? Demonstration of the adverse impacts due to UNEP-implemented project activity

? Complaint is related to UNEP?s commitment on safeguards through the ESSF or the project safeguard documents

Complaints can be ideally forwarded to the project team for speedy and informed assessment of the context and the issues. However, complaints can be also registered to UNEP and the GEF. Request for anonymity of the complainers is respected if requested.

Compliance and grievance contact information:

? At the project level

Program, Evaluation, Legal, and Technical Cooperation?Directorate General, Ministry of Environment and Forestry, Blok 1 LT.8, Jl. Gatot Subroto, Jakarta 10270 (021) 5730301 (ksdaekerjasama@gmail.com)

? At the UNEP level

UNEP/GEF Regional Focal Point & Task Manager Biodiversity, UNEP Regional Office for Asia and the Pacific, 2nd Floor, Block A, UN Building Rajdamnern Avenue, Bangkok 10200

? At the donor level

GEF Conflict Resolution Commissioner, Global Environment Facility, The World Bank Group, MSN N8-800, 1818 H Street, NW, Washington, DC 20433-002

UNEP Stakeholder Response Mechanism
Complaints can be sent to the UNEP-IOSSR directly by completing the UNEP Online Project Concern Form (https://www.unep.org/about-un-environment/why-does-un-environment-matter/un-environment-project-concern), which is available both online and PDF format. The Form is available in English, Arabic, Chinese, French, Russian or Spanish.) Submission in local languages is welcome. The form can be emailed or mailed to IOSSR. They can also be reached by telephone.

Independent Office for Stakeholder Safeguard-related Response (IOSSR) &
Director of Corporate Service Division
UNEP
P.O. Box 30552, 00100
Nairobi, Kenya
Tel: +254 709 023 421 / +254 207 626 711

For GEF projects - Concerned stakeholders may also submit a written complaint in any language to the GEF?s Conflict Resolution Commission (https://www.thegef.org/projects-operations/conflict-resolution-commissioner) and send it to:

Mr. Peter Lallas
GEF Conflict Resolution Commissioner
E-mail: plallas@thegef.org

Mailing Address:

Mr. Peter Lallas
Global Environment Facility
The World Bank Group, MSN N8-800
1818 H Street, NW

Washington, DC 20433-002
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; Yes

Executor or co-executor;

Other (Please explain) Yes

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

A detailed gender analysis was completed in the PPG, investigating gender dimensions at each site in the three Provinces, how to reach women and women?s organizations, and for purposes of outlining a strategy and actions to be pursued during the project to meet the gender targets.

In South Sulawesi and Gorontalo, women's access to employment in the public and private sectors is much lower than men?s, and most women are counted as non-labour, because they take care of the household which is considered as unpaid work. However, in practice, most women not only do housework, but also work in the fields, though they are similarly not counted as farmers. Rather, they are counted as farmers' wives who help their husbands to do agricultural work. The law recognizes the existence of women farmers, and the agriculture service provides support to the Women Farmers Group (KWT). Traditionally there is a division of plant species based on gender. Perennials or woody plants, such as mango, coconut, durian, cocoa, coffee etc. are plants that are managed by men, because these plants have high economic value. Herbaceous or non-woody crops, such as vegetables, chilies, tomatoes, long beans, peanuts, ginger and turmeric are managed by women, because these plants have lower economic value. Rice and corn crops are managed jointly by men and women. Even though rice and corn have high economic value, these plants require a lot of work, and the role of women in planting and caring for rice and corn plants is to help their husbands, as unpaid workers.

There is inequality in access to resources, especially access to forest land or agricultural land or social forestry land. In general, approval or permits for land use or social forestry are given to men as heads of households. Access to information and knowledge is usually restricted on the basis of trainings being provided to the heads of households, understood to be men. Thus, women suffer low self-confidence and self-esteem. Women are generally not involved in decision making in the family and in society. Women generally lack economic resources.

In Gorontalo and in South Sulawesi, the outreach Strategy for women and women?s groups is recommended to start with communications with the Governor, that nursery activities will be carried out with Empowerment and Family Welfare (PKK) groups at the village level. The Governor would then convey this to the Regent, and the Regent would then convey this to the Village Head. EBF will also engage the Provincial KLHK offices to reach the Women's Forest Farmers Group (KWTH) and the Women's Nursery Farmers Group (KPT-KBR). Both of these groups already have knowledge and experience in plant nurseries, so they can be encouraged to carry out intercrop nurseries for

agroforestry and bamboo nurseries. Further, the regional coordinator/village facilitator should form women?s groups that can communicate, share ideas and knowledge, and implement activities separate from the men?s groups. These women?s groups can also involve vulnerable and marginalized groups, such as those with disabilities.

In NTT, EBF already has well-established relationships with the Governor and Regents, so will utilize those channels as well as the PKKs in NTT. In Alor and Maggarai (Todo Repok/Ruteng), there are many female heads of households. The most prominent issue of gender equality and social inclusion is the belis (dowry) system that must be paid by the groom to the bride's family. Many customary traditions dictate that women are not allowed to inherit land/property.

Recommendations for steps to take at project inception: Identify clearly the availability of land for nurseries and land for permanent planting, before the project starts; identify the willingness of the Village Head to make a Decision Letter (SK) for the Women Forest Farmers Group; check the availability of baseline data as an initial modality for monitoring developments in empowerment activities; develop a clear documentation plan of the empowerment process. Capacity building is crucial. The capacity building strategy is advised to ensure: capacity building for Village Facilitators and District Coordinators are carried out through TOT (Training of Trainers); capacity Building for Women's Group is carried out for all group members through an outreach system, making sure that the timing of training uses time after women have finished carrying out their domestic roles (and does not overburden them); training is carried out in stages and material needs to be repeated several times; members and Group Leaders are encouraged to hold meetings every 2 weeks or 1 month, to share experiences, discuss problems and find solutions to overcome problems. It is recommended the project follow a Do No Harm to Local People approach, committing not to publish (including electronically) about the traditions, beliefs or rituals of the local community, because such publication will result in local people being judged by the majority as a heretical group; and committing not to publish (including electronically) the details and conditions of vulnerable groups, especially persons with disabilities, and those with HIV-AIDS, as it will result in their being ostracized by the surrounding community. *Refer to the Gender Analysis and Women?s Inclusion Report for more details on how the project will reach its gender targets.*

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.

To activate the biodiversity-friendly business models and realize the livelihood benefits linked to biodiversity conservation and reversing land degradation, private sector engagement is crucial. **Javara/ Seniman Pangan** are a key partner in realizing the Wallacea-branded food-products, galvanizing the community-based business ventures, capacity-building for entrepreneurs, and accessing markets and sales. Javara is a company well-established in Indonesia, with domestic and international sales of indigenous food products and specialty items. Javara already participates with EBF in the shared facility in Labuanbajo, Flores, NTT, which will provide a place for agroforestry and bamboo product processing, training, packaging and readying for transport to markets. The shared facility has also already created a multi-party community-based cooperative, which has been legally established and is ready to receive funds. **Kreologi,** a company started by DuAnyam, will lead on the development of nature-based tourism.

The largest private sector partnership forged in the PPG phase is with **Talasi**, committing $30 million of co-finance investment in aligned activities that will help enable and achieve programme outcomes under Outcomes 2 and 3 over the 6 years of the project in the biodiversity friendly business models. Talasi?s recent investment in a $1.5 million upgrade to their cashew and nut drying facility in West Sumba that would handle the increase in nuts coming from the GEF project area in East Sumba allows the project to activate in this site in the first year. This is crucial to demonstrate early success and momentum. Talasi already has markets for the cashews and other nut products. Talasi also will investment in product tracing technologies (important to demonstrate deforestation-free and compliance with land management objectives), organic and other product certification. Talasi is also planning to establish a nut processing facility in the Alor site that would process vanilla, kenari and kemiri, allowing the project to kick-start cultivated and wild-harvested nut products from Alor early on in the project implementation. The Talasi commitment to product off-take makes the nut products from Sumba and Alor already bankable by Bank NTT, pending their lending due diligence.

PT Royal Coconut is a private sector co-financier investing in processing facilities, post-harvest storage, market access and product off-take, and has expressed interest to partner in the Gorontalo site. **PT Agri Spice Indonesia** is interested to partner in the high quality vanilla produced around the south-southeast buffer zones of the Lompobattang site in South Sulawesi. PT Agri Spice Indonesia is currently working with KJUB Puspeta to expand vanilla production in Bontaeng, Bulukumba and Sinjai regencies just outside the target region. Preliminary discussions are taking place on the potential for Puspeta to expand seedling production and extension services to farmers in the buffer area under the project, with PT Agri Spice Indonesia becoming the buyer for the resulting vanilla beans. The Alor site is nationally-recognized for having the highest quality vanilla. Both Talasi and **PT MIO** are private sector partners for this sites? vanilla. PT MIO cures organic vanilla on site, then ships the finished product to Java for export to a distributor in Germany. They work with 45 groups of farmers and only buy green beans from their registered farmers.

Indonesia is a globally known producer of high-quality Arabica and many origins participate in the international specialty coffee market, often fetching a solid premium. Entering this market segment requires large, regular volumes and consistent quality. The domestic coffee market has been developing over the past decade as the growing urban middle class has acquired the taste for good quality coffee and hotels use it to focus on marketing quality local products. This is the prime market for growers and processors in the target areas, selling smaller volumes of the emerging single origin brands. **Wulang Pari Coffee** in the Ruteng site, Flores Island, and **Seniman Coffee/ Karana Global** in Bali are initial private sector partners.

Ikat textiles are an important traditional and commercial product from Sumba, and highly valued plant-based dye materials have been under stress for many years ? and a driver for forest loss. **Threads of Life** is a private sector partner for the project, already working with 1000 women weavers, and has

been experimenting with seedling nursery strategies along with alternative harvesting methods that could be scaled and commercialized for *Indigofera tinctoria, Symplocos cochinchinensis, Maclura cochinensis, Morinda citrifolia.*

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):

Risk and risk management measures

During project preparation, risks were updated from those presented at PIF stage, elaborated and assessed. The risk rating is based on the probability (P) of a given risk occurring combined with its potential impact (I) on the success of the project. The risk assessment matrix used for scoring is shown in Table 15. The key risks that could threaten the achievement of results though the chosen intervention strategy are shown in the Table. These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be reported in the PIRs. The UNEP Environmental, Social and Economic Review Note (ESERN) has been applied during project preparation.

Table 15: Risk Assessment Matrix

Risk Assessment Matrix						
	Impact					
Probability		**5-Critical**	**4-High**	**3-Medium**	**2-Low**	**1-Negligible**
	5- Certain / Imminent	High	High	Substantial	Moderate	Low
	4- Very Likely	High	Substantial	Substantial	Moderate	Low
	3 -Likely	Substantial	Substantial	Moderate	Low	Low
	2 -Moderately Likely	Moderate	Moderate	Low	Low	Low
	1- Unlikely	Low	Low	Low	Low	Low

Table 16: Table of Project-related Risks and Mitigation Measures

Risk	**Risk Rating** **P= Probability** **I= Impact**	**Risk Mitigation Strategy**

Risk 1: Possible shifts in government priorities and/or policy changes that may reduce project impacts	**Low** P=2 I=3	The project will start at the beginning of a new government term following the presidential election on 14 February 2024. Therefore, some uncertainties exist concerning the structure, priorities and policy directions of the new government that will take office in 2024. Consultations with government stakeholders during the PPG give assurance that ministry commitments are not predicted to change with a new government, and public opinion seems supportive of environmental protection and improved land stewardship (despite current low practices in many areas). Care has been taken in the PIF and PPG to define alignment of the project?s objectives with central and provincial government priorities. Nevertheless, there may be competing government priorities and programs, thus finding alignment in all cases may be challenging. The project will strengthen political commitment through systematic stakeholder engagement through the PPPPs formed as the basis of the ICLPs.
Risk 2: Lack of interest in or resistance to conservation actions by local and customary law communities	**Moderate** P=3 I=3	The project will engage customary law communities? and build on their aspirations in relation to land and stewardship, which will increase probability that communities see benefits of the interventions in relation to their own priorities. Local community level governance, which defines community interest and commitment, may be subject to competing economic interests
Risk 3: Poor coordination with respective national Ministries/Agencies with the program implementation	**Low** P=2 I=3	The program will be introduced to respective Ministries and government agencies to get endorsement for project implementation, and regular coordination meeting will also be conducted to share updates of the program
Risk 4: Change of policy in the land use and land use change that favours other sectors	**Low** P=1 I=2	Long-standing commitment by the Government of Indonesia on climate change, biodiversity, social forestry and forest management is unlikely to change substantially in the upcoming Presidential elections and subsequent ministerial shift. That said, there are competing interests such as the national programme on corn production (a driver in many landscapes) and the NTT Provincial programme to increase the cattle herd without identifying suitable fodder and pature land management practices to support the herd. These policy disconnects are part of the current context (which the project seeks to address), and it is predicted these will not change under a new administration either.

Risk 5: Under global climate change forecasts, climate change impacts are expected to increase on production of key commodities, due to changes in rainfall and temperature	**Moderate** P=3 I=3	? Please refer to the PIF version for more comprehensive detail on climate risks (they are not repeated here). The PPG considered current and future climate risks in the project landscapes, how the proposed project interventions will affect these risks, as well as affected communities and production systems, along these four main elements: 1) Identification of the hazards; 2) Assessment of vulnerability and exposure; 3) Rating of the risk; and 4) Identification of measures to manage these risks as part of the project design and interventions. ? ? All the landscapes are experiencing a range of climate impact already, including changes in rainfall patterns, changes in the timing of harvests, increased drought, heat stress, and increases in pest outbreaks which are related to climate stress and human land management which exacerbates problems. These climate impacts are affecting all aspects of the natural and productive systems, ranging from water flow in rivers to the flowering and fruiting of crops and yields of key commodities such as coffee, cloves, rice and other crops. The project seeks to improve livelihoods through income diversification and sequenced cultivation of crops, so to be effective, the project must adopt climate-appropriate cultivars, improve resilience land management (including stopping the use of fire to stimulate pasture growth), and also diversification in livelihoods from weaving products and eco-tourism. Thus, natural and human systems should have increased climate resilience from the project. The project increase the capacity of natural ecosystems in the target areas to reduce emission form deforestation as well as sequester carbon dioxide through the (man-assisted natural) restoration and protection of these ecosystems. This is estimated to amount to a total Carbon benefit of -8,733,744 tCO2equivalent over 20 years.
Risk 6: Wildfire damaging project-assisted agroforest systems, and forest restoration	**Medium and high in Sumba** P=3 I=4	While the project will integrate fire management in the PPPP agreements and conservation commitments with communities -as part of the social forestry and agroforestry investments, the project will align with the ongoing program of UNEP on integrated fire management in in Indonesia in collaboration with Ministry of Environment and Forestry.

Risk 7: Irresponsible practices of encroachment, illegal logging, timber theft and unregulated hunting.	**Moderate** P=3 I=3	Coordination with local law enforcement
Risk 8: Environmental and social safeguards put in place by the project are not adequately implemented, resulting in negative impacts on the environment and/or local communities.	**Low** P=3 I=2	A key priority is to work with adat/adat communities and local communities, and follow FPIC protocols with adat communities. The project also pursues a strong gender focus (see below for separate point on this). Thus, the project seeks to mitigate major social risks such as impacting adat rights, and in fact, do the opposite, which is to work hand in hand to support their aspirations and stewardship of adat territories. At the national level, the project specifically aims to increase ESG standards applied by financial institutions. It is, therefore, unlikely that there will be any negative impacts resulting from activities under components 1 and 3. At the local level (component 2), the provincial Roadmap for developing an inclusive, sustainable ICLP landscape will explicitly incorporate ESG safeguards in order to ensure that any additional investments are beneficial to the environment and local communities. It is expected that, by engaging all stakeholder including local government, the private sector, and local communities, the project will lead to increased awareness and visibility of environmental and social issues, and commitment toward sustainability. Nevertheless, careful monitoring will be required during the project implementation to avoid any negative impacts in the medium and long term.
Risk 9: Gender mainstreaming by the project may be undermined	**Low** P=1 I=2	The project seeks to be genuinely gender attuned, from the initial design phase, through the implementation, and impact evaluation. Particular attention must be paid to addressing all possible information gaps and also addressing how the project will address gender-based power imbalances in communities, which differ according to religious and cultural practices. The project will iteratively update the Gender Mainstreaming Plan, inclusive of a Gender Action Plan, to ensure that the project is gender-sensitive and minimizes any potential gender risks

Risk 10: The ambition of project outcomes and implementation complexity is high, which may risk attainment of all project outcomes	**Low** P=2 I=3	The project contains many and diverse activities and outputs, seeks to implement in complex rural contexts, with a diverse range of stakeholders and across multiple scales. The PPG phase sought to evaluate project ambition and reality of reaching targets, and develop an implementation plan that is achievable, with effective and accountable programme and project management systems. Careful management, checking against milestones, adjusting as necessary, and affective M&E will be implemented to mitigate this risk to the degree possible.

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.

Implementation Agencies

The Directorate General of Nature Resources and Ecosystem Conservation (KSDAE) of the Ministry of Environment and Forestry (KLHK), Government of Indonesia, is the National Nodal Agency for the project, working in alignment with other Directorate Generals in the Ministry of Environment and Forestry, which is the UNCCD focal point, as well as GEF focal Ministry, and Executing Agency for this project.

Project Steering Committee (PSC) members will be Secretary General of Ministry of Environment and Forestry (MoEF), Directorate Generals in the Ministry of Environment and Forestry related to the project activities (ie. Directorat General PSKL, Directorate General of PDASRH), UNEP, GEF Operational Focal Point and Environmental Bamboo Foundation and the Board will be chaired by Director General KSDAE. The PSC will serve as the project?s decision-making body. It will meet at least once each year, to review project progress, approve project work plans and approve major project deliverables. The PSC is responsible for providing the strategic guidance and oversight to project implementation to ensure that it meets the requirements of the approved Project Document and achieves the stated outcomes. At the discretion of the board, other members can be added.

Director General KSDAE will be the Project Executing Agency and Environmental Bamboo Foundation (EBF) will be Co-Executing Agency. Directorate General KSDAE will have an umbrella agreement with EBF to authorize their roles and responsibilities as s Co-Executing Agency. The Project Executing Agency will appoint the Director of Conservation Area Management as National Project Director (NPD) who will direct and oversee the work of the PMU, including provide government facilitation and guidance for project execution. NPD will provide clearance and approval of all contracts made by this project which is not limited to the human resources, procurement and third-party agreement, ensuring all is in-line with the PSC-approved workplans and budgets.

The National Project Director will liaise closely with EBF in project implementation. NPD will oversee and take the responsibility of staffing and management of the Project Management Unit (PMU). The PMU will be staffed by technical experts, finance personnel, project administration assistance, and will organize the work of consultants who work across all sites. The PMU will be responsible for the day-to-day administration and execution of the project at all levels, and work in close cooperation with KLHK in Jakarta and in Provincial/Districts and sites. The PMU office will be housed in KLHK (Jakarta or Bali) and site coordinators will be housed in KLHK Kabupaten-level offices, or other offices, as appropriate, given each site characteristics. The PMU is also responsible for developing the partnerships with the private sector necessary to deliver on project outcomes, organize the sequencing of co-finance, and all other aspects of the project as outlined in the detailed project design and budget.

The NPD will establish five Project Implementation units (PIUs) to undertake project implementation at landscape levels. Each PIU will be led by a Site Coordinator who is hired through selection process in line with Government of Indonesia regulations. The PIU will work closely with BKSDA Manager on the project implementation at the field level. PIUs will be coordinated by the PMU and report to the PMU. The PMU will be responsible for establishing a contract with implementing partners (ie. Burung Indonesia) upon receiving written approval/clearance from NPD for the outcomes and outputs for which it is responsible, as detailed in Section 3.3. The PMU will review and approve their technical and financial reports, review audit reports, and ensure fluid disbursement of funds to them within GEF rules and procedures.

DG KSDAE as Project Executing Agency will receive GEF funds according to GEF and Government of Indonesia regulations and disburse the funds to the PMU for project execution upon necessary approvals from the NPD and based on PSC-approved workplans and budgets. The GEF funds will be distributed based on the annual work plan which is approved by the PSC.

Environmental Bamboo Foundation has worked with communities in East Nusa Tenggara (NTT) since 1993 on bamboo as an environmental and economic solution for rural communities. More recently, EBF has established 40 bamboo villages in NTT, supporting bamboo-agroforestry systems over at least 40,000 ha (1000 ha per bamboo village) and livelihood improvements, based on a larger landscape-scale conservation vision. With strong NTT Provincial support, an MOU between the Provincial government of NTT and EBF was signed by the Governor in 2021 and valid for 5 years (2021-2026), allowing EBF to work with the Province on the program formulation, budgeting process and policies, which falls under the forestry and village development sectors. Investments and activities have been made in nurseries, planting and working with women?s groups to propagate bamboo. The Bamboo Agroforestry Village Campus was inaugurated in 2021 in Ngada Regency, Flores, which serves as the centre of excellence providing technical assistance to 200 bamboo village communities in NTT, the development and implementation of bamboo field school curriculum and providing technical assistance in bamboo production in multi-species agroforestry systems over an estimated 400,000 ha. A shared facility has been established in Labuanbajo, Flores, as a centre for processing, manufacturing, training and cooperative development.

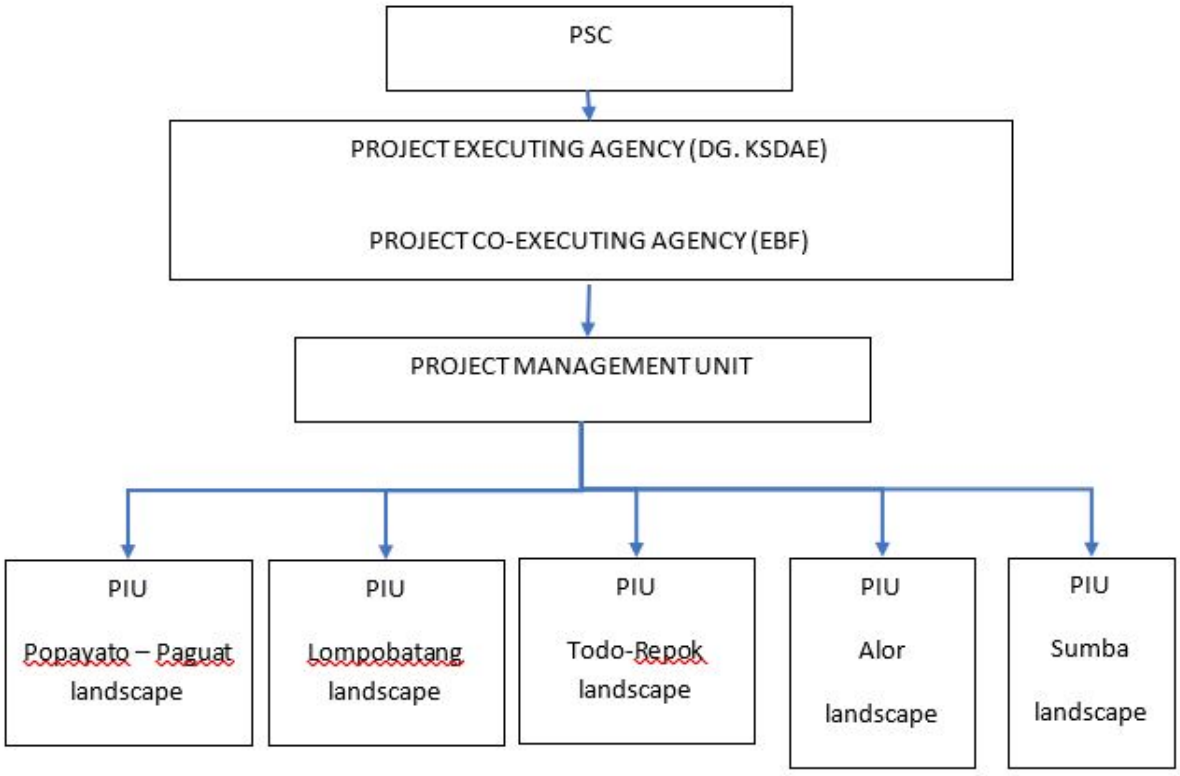
Burung Indonesia is the affiliate of BirdLife International in Indonesia, founded in 2002. Burung Indonesia brings its biodiversity and sustainable land management expertise to the GEF7 project, will receive a sub-grant to carry out key activities, and will also second key staff to the project as consultants (for instance, the consultancy on species and biodiversity). Burung Indonesia already has field offices and/or conducts field programmes in many of this project?s sites.

UN Environment Programme (UNEP) will be the lead GEF IA for the project. UNEP will provide project quality control, working closely with the PSC, and will ensure the project meets the fiduciary standards of UNEP and GEF, as well as being responsible on use of GEF grant to GEFSEC. UNEP supervision is provided by a Task Manager (TM) based at the Asia and the Pacific Office in Bangkok. A Funds Management Officer (FMO) will support the Task Manager. UNEP brings to bear its extensive experience of implementing projects related to biodiversity conservation and SLM funded by GEF. UNEP has also been instrumental in the development of financing initiatives that aim to de-risk investments in SLM and thereby generate private capital. UNEPs Climate Finance Unit implements the Restoration Seed Capital Facility, which could be a source of finance for restoration activities in the project.

As lead IA, UNEP will be responsible for overall project supervision and implementation to ensure consistency with GEF policies and procedures and will provide guidance on linkages with related UNEP and GEF-funded activities. Project supervision missions by the Task Manager will constitute part of the project supervision plan. UNEP will also monitor implementation of the activities undertaken during the execution of the project and will report on the progress against milestones outlined in the Chief Executive Officer (CEO) approval letter to the GEF Secretariat.

PSC will approve the technical and financial reports (see below- Project execution arrangements), review audit reports, and ensure fluid disbursement of funds within its rules and procedures. UNEP will inform the GEF Secretariat whenever there is a potentially substantive co-financing change (i.e. one affecting the project objectives, the underlying concept, scale, scope, strategic priority, conformity with GEF criteria, likelihood of project success, or outcome of the project). It will rate, on an annual basis, progress by the Executing Agencies in meeting project objectives, project implementation progress, risk, and quality of project monitoring and evaluation, and report to the GEF Secretariat through the Project Implementation Review (PIR) report prepared by the Executing Agency. It [UNEP] will ensure that the Evaluation Office of UNEP arranges for an independent mid-term and terminal evaluation and submits its report to the GEF Evaluation Office.

The implementation arrangements are shown in Figure 8.



Project Execution Arrangements

The PSC is the oversight, advisory and support body for the project, at the national level, and drawing in Provincial level agencies. As the National Executing Agency, KLHK?s KSDAE Director General will chair the Board, and facilitate the engagement and commitment of other KLHK DG?s as necessary to achieve project outcomes. The exact composition of the Board will be finalized once the project is approved. Other people who are not members may be invited to meetings, as required.

The PSC will meet at least once each year with the following responsibilities:

? Approve the annual work plans and budgets;
? Review project progress, ensure that activities and outputs are in line with the results framework and expenditure in line with budgets;
? Assess project impact performance;
? Provide inputs to the mid-term review and final evaluation, review findings and provide comments;
? Advice and/or assist with the project partnership, including on co-financing;
? Advise on issues and problems arising from project execution;
? Support dissemination of project outcomes, especially regarding their integration into the implementation of national policies and programmes;
? Support the PMU to maintain effective coordination with central government Ministries and Provincial or district government Departments.

Annual PSC meetings will be held in person, if possible, attended by the UNEP Task Manager, and it is at this meeting that the project team will finalize the annual work plan and budget. Additional PSC meeting may be held at the discretion of the Chair, if required.

The performance of the PMU will be assessed by the NPD. The responsibility for ensuring performance of all PMU staff and consultants rests with Project Coordinator. Other key staff of the PMU will include Finance Assistance, Administration Officer and Experts/consultants with relevant/needed expertise. A Senior Project Advisor will provide strategic input. Other key staff of the PMU will include a Senior Technical Officer, Biodiversity-friendly business models, and part-time staff including a Monitoring, Evaluation & Learning (MEL) Officer, Government Liaison (EBF Chairperson), Policy & Advocacy Officer, and Spatial Analyst. The National Project Coordinator will coordinate regularly with the Site Coordinators and link the consultants (biodiversity and sustainable land management, gender and others) to the site-level work plans and activity implementation as necessary.

Located in each project site (PIU) which is led by Site Coordinator who will undertake site-level implementation and engage with stakeholders regularly. Site coordinators will be supported by , who will be supported by a project support officer to carry out key tasks. Site Coordinators will be responsible for the day to day implementation of field activities by the project staff and partners at site level.

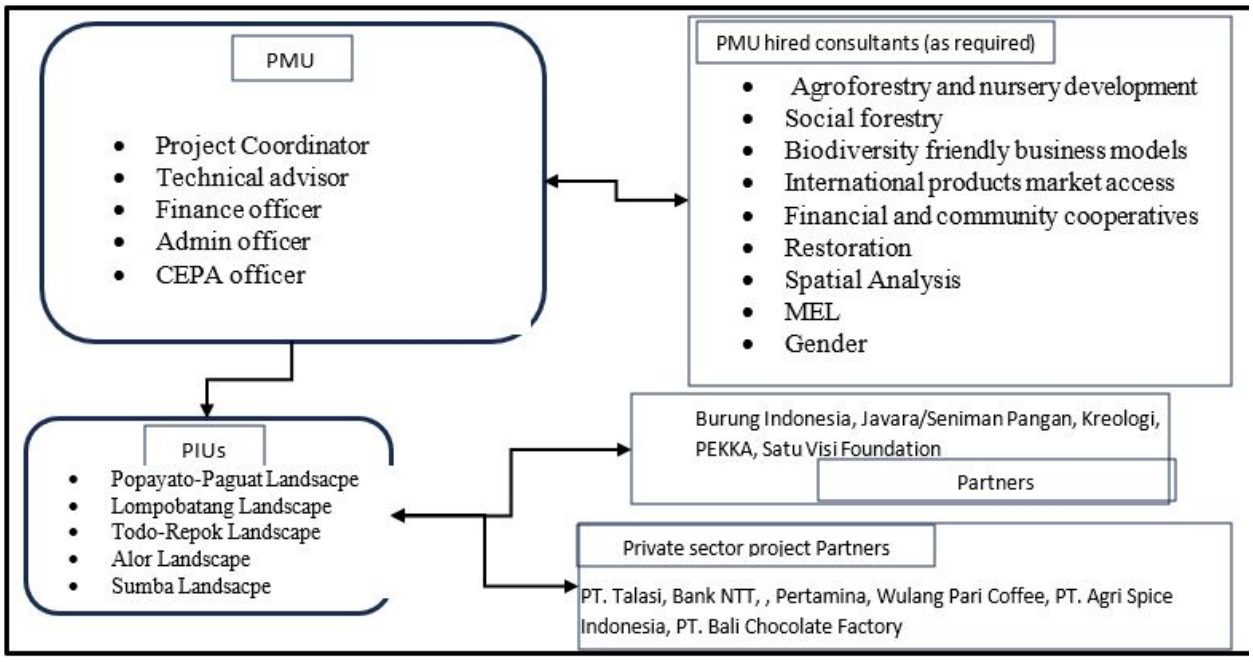
The National Project Coordinator and Site Coordinators must work effectively together to ensure that activities are well coordinated among the communities and partners, and to share learning across the landscapes. The National Project Coordinator and Site Coordinators must ensure the achievements of all project document outcomes, outputs and timelines, making sure attainment of targets is on track, troubleshooting issues as they arise, and maintaining overall quality control and performance measures.

This project is based on the intention to meaningfully engage adat and local communities, women and the younger generation, to respond to their interests to build their commitment to the project and to ensure the project meets their needs and improves their lives. Site Coordinators and the National Project Coordinator will regularly consult with and welcome input from these key stakeholders, and bring their ideas to the PSC to inform insights and decisions. This bottom-up aspect of project implementation is important to complement top-down approaches.

The PMU will identify and make agreements with consultants or other organizations to contribute to specific activities. These are identified in the costed work plan and budget. Financial arrangements, including contributions to co-financing, will be incorporated into the agreements. Contracted parties will send reports to the PMU, so that it can retain oversight of the whole project execution.

The project implementation organogram is illustrated in Figure 9 below:

Figure 9: Project implementation organogram



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.

? National Action Plan for Adaptation (NAPA) under LDCF/UNFCCC

? National Action Program (NAP) under UNCCD

? ASGM NAP (Artisanal and Small-scale Gold Mining) under Mercury

? Minamata Initial Assessment (MIA) under Minamata Convention

? National Biodiversity Strategies and Action Plan (NBSAP) under UNCBD

? National Communications (NC) under UNFCCC

? Technology Needs Assessment (TNA) under UNFCCC

? National Capacity Self-Assessment (NCSA) under UNCBD, UNFCCC, UNCCD

? National Implementation Plan (NIP) under POPs

? Poverty Reduction Strategy Paper (PRSP)

? National Portfolio Formulation Exercise (NPFE) under GEFSEC

? Biennial Update Report (BUR) under UNFCCC

? Others

The project objective is aligned with Indonesia?s UNSDCF, which aims to support the country?s development vision of becoming a prosperous, democratic, and inclusive society that respects human rights and the environment. The project will contribute to the following UNSDCF outcomes:

Outcome 1: By 2025, all people in Indonesia, especially the most vulnerable and marginalized, have equitable access to and benefit from quality education and lifelong learning opportunities that are relevant to their needs and aspirations. The project will support this outcome by providing environmental education and awareness-raising activities for local communities, especially children and youth, to foster a culture of conservation and stewardship of natural resources.

Outcome 2: By 2025, all people in Indonesia, especially the most vulnerable and marginalized, have improved health and well-being, and are more resilient to shocks and stresses. The project will support this outcome by promoting sustainable land management practices that reduce land degradation, soil erosion, water pollution, and greenhouse gas emissions, thereby enhancing ecosystem services and climate resilience. The project will also provide livelihood benefits linked to conservation outcomes, such as ecotourism, agroforestry, and non-timber forest products, that improve the income and food security of local communities.

Outcome 3: By 2025, all people in Indonesia, especially the most vulnerable and marginalized, have greater voice and participation in democratic governance and decision-making processes that affect their lives. The project will support this outcome by strengthening the capacity of local civil society organizations and community groups to engage in landscape-based conservation action, policy advocacy, and multi-stakeholder dialogue. The project will also foster social cohesion and empowerment of women and indigenous peoples in natural resource management.

Presidential Instruction no. 1/2023 concerning Mainstreaming Biodiversity Preservation in Sustainable Development was adopted in January 2023. This INPRES instructs all relevant levels of government, local communities and private sector to engage in aligned action, to mainstream biodiversity across sectors. Due to the biodiversity species and habitat planning that will be completed by this project, and the integrated conservation landscape planning that will engage different sectors at the project and Regency levels, this project will develop technical, scientific and analytical contributions as well practical solutions to enable all levels of government to mainstream biodiversity and species conservation, along with biodiversity-friendly business development, in development planning. The project would share information to all stakeholders and levels of government, supporting their progress in mainstreaming biodiversity into driver sector planning and medium-term development planning targets and goals.

National Medium-Term Development Plan (RPJMN) 2020 ? 2024 prioritizes (i) institutional stability on both law and politic, (ii) increasing society welfare, (iii) stronger and more advance economic structure, and (iv) protection of biodiversity. Of note is that biodiversity protection is acknowledged as among the pillars to achieve a sustainable economy. The planning document acknowledges that future economic

development is determined by environmental conditions in a way that climate change and declining environmental carrying capacity can have a negative impact on the achievement of economic growth targets. Protection of primary forest and threatened species habitat are among the environmental parameters to be pursued. The RPJMN 2020-2024 set targets for: a) increased habitat quality and population numbers, especially for key, protected and endangered species in each ecoregion; b) increased area and effectiveness of land and marine conservation area management; c) biodiversity can be managed in an integrated manner across all development sectors; d) the value of biodiversity benefits to national economic growth is increasing; e) increased resilience to climate change impacts in four priority sectors: marine and coastal, water, agriculture, and forestry. The above targets have been flowed down to relevant ministries to be implemented as programs. They are also integrated or formulated into more focused policies such as the NDC on emission reduction (RAN-GRK), low carbon economy, NBSAP, FOLU Net Sink, and others. The Ministry of Environment and Forestry fulfils the environment and forestry sector pillar of the RPJMN. It has conducted a review of policies and identified key priorities for 2021 and beyond.[1]

Indonesia Long-Term Strategy for Low Carbon and Climate Resilience 2050 ((Indonesia LTS-LCCR 2050): In the First NDC to the Paris Climate Agreement, Indonesia set an unconditional target of 29% and conditional target up to 41% compared to business as usual in 2030. Through LTS-LCCR 2050, Indonesia will increase its ambition on GHG reduction by achieving the peaking of national GHG emissions in 2030 with the net- sink of forest and land-use sector, reaching 540 MtCO2e by 2050, and with further exploring opportunity to rapidly progress towards net-zero emission in 2060 or sooner. In order to achieve this target, forestry sector will share considerable efforts to maintain increasing trend of net-sink after 2030. In both scenarios, the significant reduction of emission occurs due to significant decrease in deforestation and peat related emission (peat fire and peat decomposition), and significant increase in carbon sequestration from secondary forest and from afforestation and reforestation.

Forestry and other land Uses (FoLU) Net Sink 2030: The Government of Indonesia has committed in the Enhanced National Determined Contribution (ENDC) as part of the Paris Climate Change Agreement to reduce greenhouse gas emissions by 31.89% with a rehabilitation target of 12 million hectares of critical land by 2030. The new initiative Forestry and other land Uses (FoLU) Net Sink 2030, being developed in 2023, contains a target of 140 million tonnes of CO2e reduction by 2023. In this context, a five-year initiative is being developed for the provision of bamboo seeds and planting, rehabilitation of critical land and watersheds (watersheds), strengthening of FMUs, strengthening of community business groups, improving the economy of communities around forests, increasing human resources through Field Schools, increasing community skills in making bamboo products, support for research and development of innovative technology, support for certainty of area and tenure utilization, support for policies, regulations and strengthening of local government. These activities are aligned with this GEF7 proposal, and intended to provide co-finance (government grant) for the GEF7 project, for the sites Todo-Repok, Alor and Sumba.

Although formally expired, the *Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2015-2020*? is still the strategic backbone for Indonesian biodiversity management, through its vision of ?*Indonesian biodiversity preservation and development that contributes to national competitiveness and a fair and sustainable use of resources to improve the welfare of current and future generations* (BAPPENAS, 2016).?

The more recent *Indonesia Sixth National Report to CBD* has strong relevance: The GEF project is consistent with its national targets, specifically:

National Target 2: Implementation of sustainable management of biodiversity resources in the planning and implementation of national and regional development to improve community economies ? Relates to Aichi Target 2 and the integration of biodiversity values into national and local development in Indonesia, including RPJMN, but requires additional action at sub-national levels.

National Target 3: Realization of incentives and disincentives system in business and the sustainable management of biological resources ? it identifies a need to develop an incentive and funding scheme to control anthropogenic impacts on biodiversity.

National Target 7: Improved sustainably managed land for agricultural, plantation and animal husbandry ? Relates to the need for mainstreaming and regulation on biodiversity management in sectors to comply with the Aichi Target 7 framework.

National Target 11: The maintenance and improvement of conservation areas (Non-PAs). It recognizes the preservation of natural resources and the environment and disaster management as one of the sub agendas to realize economic independence, with emphasis on sustainable management of protected forest, watersheds, essential ecosystems management, and the expansion and sustainable management of land for agriculture, plantations and animal husbandry.

National Target 12: Realization of efforts to maintain the populations of endangered species as a national conservation priority ? Government has determined 25 priority endangered species (terrestrial) for national conservation, This GEF proposal includes activities to benefit 5 of the 25 national priority endangered animals.

National Target 14: Improved functionality of ecosystems to ensure the improvement of essential services ? It recognizes the importance of preservation of ecosystems inside as well as outside of conservation areas to provide important ecosystem services. Key aligned activities include management and development of essential ecosystem landscapes and increasing production and productivity of environmental-friendly agricultural products.

National Target 15: Conservation and restoration of degraded ecosystems (Aichi Target 15) to improve the production and ecological functions in support of human prosperity. The program is also expected to o provide direct benefits to the community as a source of income from the utilization of restored or enhanced environmental services.

National Target 20: Identification of resources and improving budget effectiveness in the implementation of sustainable management of biodiversity - the estimated gap for effective BD management is approximately USD$ 13.5 per ha per year, with a national total of USD 521.9 million annually. This target notes the limited funding for biodiversity coming from biodiversity-based business activities.

National Target 22: Implementation of various conflict settlement processes related to biodiversity ? Recognizing that land use conflict and pressure by communities, in various forms, still pose a major challenge to the management and conservation of biodiversity; and this target seeks integration of biodiversity values into communities and resolution of disputes.

Land Degradation Neutrality National Report (2015) - The national target for LDN is projected at reduction of degraded land by 27.5 million hectares by 2040, with the assumption that there are no

additional degraded lands during the period 2015 to 2040. The 3 regions chosen as national priorities are East Nusa Tenggara, East Kalimantan, and North Sumatra Province. East Nusa Tenggara is best known as one of the driest areas in Indonesia, and drought is the main problem, occurring almost every year. The GEF project contributes to the LDN national targets as follows:

? Forest management through the system of Forest Management Units, divided into 3 categories namely conservation, production, and protection FMUs. The GEF project prioritizes landscape-scale planning, management objectives and targeted investment via FMU processes.

? The critical importance of public support and participation towards prevention of LD, and rehabilitation efforts. The project prioritizes local community engagement, training, participation, and stewardship.

? Developing a partnership with local institutions, community and non-government organizations for an effective implementation of LD control. Particularly in NTT, partners in the GEF project were chosen based on their pre-existing relationships with local communities to address land degradation and related livelihood activities.

? Developing capacity to consolidated, manage and deploy existing financial resources (APBN, APBD) and strengthen the capacity to negotiate with international and national agencies for increased financial support. This project seeks GEF support to operationalize new fiscal tools to direct public investment based on biodiversity and reduced land degradation, as well as activating new private investments aligned with this outcome.

? Establishing priorities and development of action plans through active involvement in the decision-making by local communities in the implementation, monitoring and evaluation. Local community monitoring and stewardship are an output of the GEF project, based on the need to develop effective local Monitoring, Control and Surveillance (MCS) for the project PPPP agreements.

? Full participation of representative community should be engaged in all levels of program cycle (planning, implementation, monitoring, and evaluation). This is affirmed in the project design, from PPG phase, to bottom-up approaches with local communities to affirm their commitments, atune project design to local needs, especially considering the barriers local stakeholders face, identification of biodiversity-friendly business entities and value-chains, ensuring community participation in ownership and management of livelihood options and related revenue/income generation, and as per above point, in monitoring and evaluation of PPPP agreement implementation.

? Use best practice knowledge and robust technologies including traditional knowledge and wisdom ? The project seeks engagement with *adat* communities, particularly in NTT where these communities are more in-tact that in other areas of Indonesia subject to immigration/transmigration, and seeks to incorporate their local knowledge of biodiversity and land management practices, while also finding ways to reduce environmental impacts of some such as fire/burning of pasture, through methods that are accepted by communities and proven to be effective. Traditional knowledge (TK) is highly valued in this project and inclusive community engagement will ensure that TK is incorporated into project implementation, monitoring and evaluation.

? Raising awareness about need for environmental quality and sustainable agriculture development ? A major contribution of the project through EBF-generated co-finance and NTT Provincial government support are the agroforestry centres of excellence for training and public awareness, as well as farmer field-schools and nurseries which build farmer-to-farmer exchange. This is a proven method to transfer of knowledge to local stakeholders on improved land management and biodiversity-friendly business models, which ties sustainable agriculture/forest development to new sources of income and investment, with performance measures.

? Project should be holistically concern about the unique characteristic of the community in the respective degraded land (integrated and sites special project) ? The ICLP process of defining landscape-level plans, in which biodiversity, land degradation, improved forest management, and biodiversity-friendly business models are defined, allows for a holistic view of what has driven degradation activities

(economic, technological, etc.) and enables design of intervention to address them at site-specific and landscape-scales.

? Project should concern on long-term security investment through a good and attractive land tenure system ? Thus this GEF project seeks to secure social forestry concessions to secure local tenure rights in order to safeguard their investments in biodiversity conservation, livelihoods, and land restoration.

---

[1] KLHK, 2021. KLHK Work Plan 2021.

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.

The BIO-WALLACEA Knowledge Management approach involves a) building the base of knowledge among key stakeholder groups so that the project changes land users behaviour to affect driver pressures (thereby influencing outcomes); b) building the capacity and knowledge of local government (kabupaten, kecamatan, village levels) to enable the mainstreaming of biodiversity and land degradation neutrality into development and local governance systems; c) building networks and communities of practice to forge ecosystems for practical implementation of the biodiversity-friendly business models and community-based biodiversity monitoring. The knowledge management approach is underpinned by a monitoring and evaluation system that seeks to iteratively evaluate and assess project implementation lessons learned and adaptive management across the Outcome and Output areas.

Learning from relevant projects, programmes, initiatives and evaluations:

The first step in bringing knowledge into the project team and implementation activities is learning what has worked and what has failed in other related projects and programmes. Section 2 of this document on baseline projects summarizes the extensive number of projects and programmes that come before BIO-WALLACEA and which provide a basis for learning related to community engagement, confronting driver pressures on key habitats, social forestry, agroforestry uptake, building community-based business ventures, and the many other output areas the project will implement. A major element of the PPG phase was learning from projects that operated (or still operate) in the project sites. These lessons are documented in the field visit and stakeholder consultation notes, and informed project design.

Knowledge production, exchange, learning and collaboration is also a core part of the communications strategy for the project, which will utilize various tools and methods to collect information, share knowledge and information, and attune information to the needs of specific stakeholder groups (which are quite different, depending on the location, level of education, gender, and many other aspects).

Each project Component includes knowledge management actions, which are detailed in the table below.

Knowledge management activities are hard-wired into a significant number of the Outcome and Output areas, because of the need to ensure the project reduces unnecessary activities and maximizes impact in its implementation. The table below details how this will occur in each of the Components, detailing the activity, the timeline for implementation (most dates represent starting dates for the activity, not the length of it and its completion date), and the knowledge management significance and contribution to project?s overall impact pertaining to each activity.

Activity	**Key deliverables**	**Timeline**	**Knowledge management significance and contribution to project?s overall impact**
1.1.1.3 Conduct technical workshops and meetings with consultants, government staff (at all levels, as necessary), and local communities (includes IPs, women and youth) to jointly discuss and eventually forge joint-agreement on ICLP plan concepts (spatially explicit, multi-sectoral)	Field reports	Year 1, Q 1,2,3	These consultations to be largely knowledge building, bringing best practices form other jurisdictions, to inform collective decision-making Key agreements via the PPPPs for project implementation
1.1.1.7 Additional technical analyses as required in each site (e.g. hydrology in Manggarai, alternative strategies for pasture management and fire in Sumba)	?Hydrology analyses ?Pasture management and alternative analysis (fire management) in Sumba	Year 1, Q3	Technical knowledge on pressing issues, to be shared with key agencies and sectors to forge shared decision-making Improving knowledge for water and pasture management crucial in NTT to address land degradation outcomes

1.1.1.8 Analyses of future climate change impacts in relation to biodiversity values, agricultural production, water, livelihood requirements, and develop plans as part of ICLP	?Future climate scenarios forecasted, analyses on agric and forest productivity	Year 1, Q 2 and 3	Technical knowledge on climate impacts on production systems largely unknown in sites. Outcomes to be shared with key agencies and sectors to forge shared decision-making on interventions and connection to medium-term development plans
1.1.1.9 Develop plans for community-based monitoring and other monitoring systems required for the project to effectively address driver pressure and report on change in the status of selected species at mid-term review and project completion.	? Blueprints for community-based monitoring, development of systems in each site	Year 1, Q3	Knowledge built and managed at community-levels to address driver pressure, habitat conversion, biodiversity conservation is crucial for long-term local stewardship Community-based monitoring is a key output under Outputs 1.1.1.9 and 3.4.1.1
1.1.2.1 Building capacity of key stakeholders to discuss, consult on and agree to the proposed interventions, refine intervention options based on stakeholder input.	Draft intervention plans	Year 1, Q3	Knowledge building and capacity to collectively make decisions, based on data, awareness of connection between BD/land health and economic/livelihood stability in face of poverty and increased risk to production systems
1.1.2.2 Conduct FPIC with indigenous communities in project areas, assist to complete any additional assessments IP communities need to assess impacts, support their capacity building	FPIC documented with local data communities in each site	Continuous, first report due Year 1, Q 3	Adat traditional knowledge to be respected and incorporated into project Adequate consultation for FPIC is key outcome

1.1.2.3 Consultation with Provincial, Kabupaten, Kecamatan and Desa levels (and all relevant agencies) in each site to build their awareness and commitment to the ILCP goals, and how that affects their sectors, plus additional analysis/consultation to overcome sectoral trade-offs	?Documentation on consultations	Year 1, Q 2 and 3	Bringing knowledge products to key government sectors and agencies crucial to address driver pressure, cross-sectoral conflict, and build awareness of future opportunities for alignment Project seeks to build capacity of local government and data, knowledge and awareness of project outcomes on BD and LD, and in relation to livelihood improvements
1.1.3.2 Build capacity of local communities to manage new responsibilities under FMU and land restoration objectives	?Documentation of capacity built, number of reformed FMU plans	Multiple years	Social forestry and FMU planning requires communities to have the capacity to intervene, develop business plans, and also stem unsustainable forest management Pertinent to all ha targets for improved land management
1.2.1.6 Develop capacity-building plan for biodiversity-friendly business models, including how to establish or reform existing BUMDes to achieve outcomes. Outline required skills and training needs along with the sources and costs for providing these. The communities will have to be active participants in this process and any resulting business plans will require their full approval, commitment, and leadership.	?Summary report with recommendations	Year 1, Q4	Private sector partners bring considerable knowledge of how to activate community-level business models. As one stakeholder said, ?We don?t want project funds, we want to learn how to make meaningful livelihoods for our families and communities and do it ourselves.? Crucial to achieving long-lasting impact and livelihood targets and indicators

2.1.1.1 Consultation and development with local communities and especially adat on OECM options (Popayato-Paguat in Gorontalo is a priority area)	?Report summarizing findings on OECM options in key sites, with recommendations on how to pursue	Year 2, Q1	OECMs provide a new mechanism for land protection that is attuned to local conditions, if designed to. Communities need knowledge on how this can function to meet their longer-term livelihood and tenural access needs. Area-based protection for key species habitat to occur on some portion TDB of the 514,818 ha.
2.1.1.2 Consultation and implementation with local stakeholders of agreed strategies to address driver pressures in each landscape	?Summary report on consultation findings and recommendations	Year 1, Q4	Knowledge build among local communities of the driver patterns and impacts on land use, access and livelihoods important to build their buy-in to solutions
2.1.1.3 Building capacity for and implementing development of Community Monitoring, Control and Surveillance ? MCS (forest guardians), as a means to build local commitment to area-based biodiversity stewardship, and to address threats to biodiversity loss that occurs (e.g., illegal logging, bush fires, etc), and development of local patrolling and enforcement (along with plans for sustained financing)	?Summary of capacity-building efforts and implementation arrangements for MCS	Year 2, Q2	Same as 1.1.1.9 above: Knowledge built and managed at community-levels to address driver pressure, habitat conversion, biodiversity conservation is crucial for long-term local stewardship Community-based monitoring is a key output under Outputs 1.1.1.9 and 3.4.1.1
Output 3.1.2: Mainstream biodiversity and LDN lending criteria	Summary reports and recommendations	First 3 years	Knowledge of these policy options largely lacking at kabupaten, kecamatan and village levels, yet implementation at these levels is crucial

4.1.1 Project-level M&E systems developed for on-going performance evaluation of BD, LDN, poverty reduction and gender targets, develop kecamatan or kabupaten-based M&E indicators and measures relevant to the SDGs and other performance measures (GHG emissions, waste, etc.) to help inform broader measure of project impact; identify how to link M&E to Community Biodiversity Monitoring Programmes est. under Outcome 2.1.1.	M&E plans and systems	Throughout project	Project-level M&E to build upon knowledge, communications and outreach strategy works in tandem to reach broader community and stakeholders Community-based monitoring is a key output under Outputs 1.1.1.9 and 3.4.1.1

Plans for Strategic Communication

Public awareness building and communications will be pursued along the following priorities: 1) Reaching all relevant stakeholders in the sites to ensure inclusion of interested or affected stakeholders (e.g. economically vulnerable, women, adat, etc., to be iteratively assessed); 2) Involving all community-level stakeholders groups, and pursuing the appropriate channels to engage with them (gender sensitivity is one priority, also to ensure we do not contribute to elite capture); 3) Government departments at all levels that are interested in or have a stake in the project outcomes, and through liaison efforts, the project will engage government departments that normally do not have a mandate to cooperate together; 4) Private sector actors that have a stake in or can influence project outcomes; and (5) Institutional stakeholders, including CSOs, universities, research institutions, churches and mosques, and others that can align their interests and contributions to the project. These activities will be central to the PPPP development, but will also seek to inform the broader community and public sector actors about the project, its goals and objectives, and how it seeks to support biodiversity protection and sustainable land management that is directly connected to livelihood improvements.

Establishing the PPPPs and undertaking the work to define ICLPs (beginning in Outcome 1.1 and implementing it through Outcome 2.1) will require raising awareness across the communities, related private sector entities, and local authorities on the value of biodiversity, the need to address drivers of habitat loss, and to restore degraded lands. The methods to engage stakeholders in these discussions will be through individual meetings, focus-group discussions, larger multi-stakeholder meetings, government-convened meetings, and peer exchanges.

The lead responsibility for building public awareness and communications will be through the Programme Management Unit (PMU), and the Communications, education, publication, and awareness (CEPA) officer. Site coordinators will work with communities, farmers and land users on a daily basis and with the technical staff assigned to the project. Site coordinators will play a key role in building public awareness and communications at the site level, due to their interactions with stakeholders and local presence. Therefore, site coordinators will assist in disseminating information, materials, training manuals, videos and other means of communication. EBF has already developed public awareness and communications toolkits and methods that have been applied in East Nusa Tenggara, and have been able to reach people in remote areas, and with various education levels.

Building the awareness and support of government officials will be the task of the project coordinator, the government liaison (very senior level), and the policy and advocacy officer (technical level). It is very important that awareness of the project occur regularly within MoEF, and at the Directorate General levels. The project government liaison will effectively engage those levels, and will have the ability to do so, given the role outside government (thus does not come under restrictions on mandate). The project coordinator will regularly liaise with the Provincial government agencies, and this is particularly important in order to engage the broad cross-section of relevant departments, from planning to water, environment and forestry, and agriculture and energy. Periodic project updates will be made through project Steering Committee meetings which will be convened at central government level, but engage all provincial, regency and district levels.

Another key aspect of public awareness and communications is the branding of biodiversity-friendly products from the region. In consultation with Javara, a private sector partner that will develop food products, the project will differentiate products by creating a ?Wallacea Gourmet? product branding (in which would be landscape specific brands such as ?hornbill coffee?). This will also support geographical indication (GI) designations that already exist, but have not created the branding that defines a unique ?story? in the marketplace. With product branding that expands upon the biodiversity attributes, the products will tell the story of origin, producers, and the unique biodiversity. This will enable the articulation of that ?story? to retailers and end consumers.

The timelines, deliverables and benchmarks for the major knowledge outputs to be produced and shared with stakeholders are summarized in the table below.

Project Deliverables and Benchmarks

Activity	Deliverable	Benchmarks
Component 1: Planning and governance for integrated landscape conservation and reduced land degradation		
Outcome 1.1 Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon.		
Output 1.1.1 Analysis of impact drivers to ecosystems, and identification of opportunities for landscape and species protection in Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), which guide ecological and spatial context of restoration and habitat protection, measures to address drivers, as well as optimized investments for resilient landscapes and communities		
1.1.1.1 Refine analysis and share the outcomes of driver assessment completed during PPG with stakeholders as part of PPPP development. Further develop a means to measure the impacts of the project on reduced deforestation such as the net change of forest cover in the project landscapes - the sum of all forest losses (deforestation) and all forest gains (forest expansion) (reference: https://www.fao.org/forest-resources-assessment/2020/en/)	? Refined driver analysis ? Development of M&E metrics on forest cover and biomass change	Year 1 Q2
1.1.1.2 Develop management plans, training and capacity building requirements to set targets for minimum ecological thresholds/ecosystem service functions ((e.g., habitat integrity, genetic and seed stocks of endemic species, HCV forest areas, climate change impacts and adaptation strategies, watershed functions, etc.). Determine habitat suitability for target species under different climate scenarios and time frames.	? Refined minimum ecological thresholds/ecosystem service functions for each site and each target species ? Assessment of habitat suitability for target species under different climate scenarios and time frames	Year 1 Q3

1.1.1.3 Conduct technical workshops and meetings with consultants, government staff (at all levels, as necessary), and local communities (includes IPs, women and youth) to jointly discuss and eventually forge joint-agreement on ICLP plan concepts (spatially explicit, multi-sectoral)	? Field reports on all consultations, recommendations for ICLP terms	Year 1 Q1,2,3
1.1.1.4 Landscape and species protection analysis in the KBA/IBAs and surrounding areas, to confirm priority species and locally specific conservation action, the needed ecological and spatial context of habitat protection and restoration, and optimised land-use investments. Detailed plans for restoration, including species, capacity, and longer-term management to ensure success	? Species protection plans, site specific, and updating any existing existing key species action plans (SRAKs) ? Detailed plans for forest and habitat restoration, including species, capacity, and longer-term management	Year 1 Q1,2
1.1.1.5 Spatial analysis as required to complete the ICLPs and all related analytics to support project outcomes and monitoring	? Tabular data, spatial data, maps	Year 1 Q1,2,3,4
1.1.1.6 Drafting ICLPs, with supporting technical analyses, and updating these documents as necessary over the project timeline	? Draft ICLPs, technical reports	Year 1 Q1,2,3, final versions by Q4
1.1.1.7 Additional technical analyses as required in each site (e.g. hydrology in Manggarai, alternative strategies for pasture management and fire in Sumba)	? Hydrology analyses ? Pasture management and alternative analysis (fire management) in Sumba	Year 1, Q3
1.1.1.8 Analyses of future climate change impacts in relation to biodiversity values, agricultural production, water, livelihood requirements, and develop plans as part of ICLP	? Future climate scenarios forecasted, analyses on agric and forest productivity	Year 1 Q2 and 3
1.1.1.9 Develop plans for community-based monitoring and other monitoring systems required for the project to effectively address driver pressure and report on change in the status of selected species at mid-term review and project completion.	? Blueprints for community-based monitoring, development of systems in each site	Year 1, Q 3
Output 1.1.2: Five (5) spatially explicit Integrated Conservation Landscape Plans (ICLP) adopted by local government, incorporating LDN and key habitat conservation targets, linked to government Medium-term Development Plans for alignment of budgeting and fiscal support (see 3.1.2 & 3.1.3)		

1.1.2.1 Building capacity of key stakeholders to discuss, consult on and agree to the proposed interventions, refine intervention options based on stakeholder input.	? Draft intervention plans drafted	Year 1 Q 3
1.1.2.2 Conduct FPIC with indigenous communities in project areas, assist to complete any additional assessments IP communities need to assess impacts, support their capacity building	? Document FPIC consultations, reports from each community, and in each site	Continuous, first report due Year 1, Q 3
1.1.2.3 Consultation with Provincial, Kabupaten, Kecamatan and Desa levels (and all relevant agencies) in each site to build their awareness and commitment to the ILCP goals, and how that affects their sectors, plus additional analysis/consultation to overcome sectoral trade-offs	? Documentation on consultations	Year 1, Q 2 and 3
1.1.2.4 On-going consultation on policy and budgeting alignment with ICLP goals (at all; government levels) + build recommendations for policy/budget changes to overcome sector conflicts or build more aligned financing to support ILCPs	? Recommendation drafts, vetted with Ministries ? 5 spatially explicit ICLPs adopted by PPPPs and local governments	Year 1, Q4 Year 1, Q4
Output 1.1.3 ICLP-based biodiversity conservation, SLM/SFM and related economic/investment planning is integrated into 277,130 ha of optimised Forest Management Unit (FMU) plans and boundary decisions, and management capacity established with partners under People, Public, Private, Partnerships (PPPP) agreements (see 1.1.2)		
1.1.3.1 Engage in FMU management planning processes in all sites, working with FMU processes to integrate ICLP findings and recommendations.	? Draft FMU terms and management directives for each site	Year 1 Q4
1.1.3.2 Build capacity of local communities to manage new responsibilities under FMU and land restoration objectives	?	
Outcome 1.2 Improved landscape management with conservation outcomes through secure local governance and land tenure as a basis for enhanced agroforestry value-chains in social forestry concessions		
Output 1.2.1: Community social forestry concessions secured, and their development aligned with ICLP objectives for biodiversity conservation, community welfare and more sustainable and productive agroforestry value-chains (coffee, kenari, cacao, sugar palm etc.)		

1.2.1.1 Consultation with local communities on their aspirations for social forestry, recognizing there may be complex tenure rights issues, overlapping claim areas, and consultation with local communities needs to be attuned to all local nuance in order to overcome potential conflicts	? Consultation report summaries, documenting all aspects, along with recommendations for how to address concerns	Year 2, Q1
1.2.1.2 Land demarcation and boundary dispute resolution as necessary to reach clarity on how to secure > 100,000 ha of social forestry concessions	? Plans for reconciling land disputes	Year 2, Q1
1.2.1.3 Consultation with all levels of government that are required to approve social forestry concessions, to secure the 35-year concession rights	? Summary reports	Year 2, Q1
1.2.1.4 Develop business plans for social forestry areas, as they pertain to ICLP objectives	? Detailed business plans, for each site	Year 2, Q2
1.2.1.5 Develop business plans for each biodiversity-friendly business model, as per considerations in each site, starting with livelihoods assessments at project inception. Include: identification of the specific commodities/activities including the local value added, and the what collective processing facilities can be established and their optimal location, plus processing and transport costs. Based on that, assessment of seasonality issues, infrastructure requirements, availability and gaps, documents supply and logistical costs, specific market opportunities, mapping partners and/or off-takers, and financing requirements and sources.	? Detailed business models, with financial analyses	Year 1, Q4
1.2.1.6 Develop capacity-building plan for biodiversity-friendly business models, including how to establish or reform existing BUMDes to achieve outcomes. Outline required skills and training needs along with the sources and costs for providing these. The communities will have to be active participants in this process and any resulting business plans will require their full approval, commitment, and leadership.	? Summary report with recommendations	Year 1, Q4

1.2.1.7 Develop and implement product tracing and certification standard assessments and capacity-building to ensure biodiversity-friendly products meet market standards for biodiversity and sustainable land management	? Report on requirements and how community-based businesses can meet standards, with associated investment requirements and timelines	Year 2, Q1
Component 2: Implementation of the ICLP in alignment with local governance, impact financing and community-development		
Outcome 2.1: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans		
Output 2.1.1: Other Effective Conservation Measures (OECM) and community- based Monitoring, Control and Surveillance implemented (e.g. integrated fire management, protection of wildlife habitat for breeding, feeding, resting; encroachment)		
2.1.1.1 Consultation and development with local communities and especially adat on OECM options (Popayato-Paguat in Gorontalo is a priority area)	? Report summarizing findings on OECM options in key sites, with recommendations on how to pursue	Year 2, Q1
2.1.1.2 Consultation and implementation with local stakeholders of agreed strategies to address driver pressures in each landscape	? Summary report on consultation findings and recommendations	Year 1, Q4
2.1.1.3 Building capacity for and implementing development of Community Monitoring, Control and Surveillance ? MCS (forest guardians), as a means to build local commitment to area-based biodiversity stewardship, and to address threats to biodiversity loss that occurs (e.g., illegal logging, bush fires, etc), and development of local patrolling and enforcement (along with plans for sustained financing)	? Summary of capacity-building efforts and implementation arrangements for MCS	Year 2, Q2
2.1.1.4 Implementation of fire management and pasture improvement strategies in Sumba	? Assessment of options to reduce/restrict fire use, with operational alternatives	Year 2, Q1 for report, implementation following
2.1.1.5 Changes in regulations (central, kabupaten, kecamatan, desa, as necessary) to implement OECMs	? Legal brief and draft orders	Year 2, Q3 for first draft, iterative after that
Output 2.1.2: KBA/HCVF forests protected and restored (assisted natural regeneration and enrichment planting) and sustainable forest/savannah management on degraded lands for increased soil and woody vegetation health		

2.1.2.1 Establishment of nurseries and local capacity built to maintain them	? Plan for nursery establishment and maintenance with DAS	Year 1, Q4
2.1.2.2 Workshops and trainings on restoration strategies, local community monitoring	? Half-yearly and yearly workshops	Year 1, Q4; Year 2, Q3; Year 3, Q3; Year 4, Q3; Year 5, Q3, assess need for Y 6 and 7
2.1.2.3 Materials and hired labour costs for forest restoration		
2.1.2.4 Local community monitoring and enforcement for forest restoration	? Community monitoring operational	Year 3, Q2
Output 2.1.3 Biodiversity is mainstreamed into 277,130 ha FMU implementation including their business plans for BD-friendly investments (informed by the ICLPs), SFM, restoration, social forestry and other area-based conservation modalities		
2.1.3.1 Consultations with stakeholders and government departments (priority is DINAS Dinas Kehutanan Provinsi, but requires others such as BAPPEDA, Bupati's at Kabupaten levels, and so on)	? Summary reports with recommendations and updates on implementation progress	Year 3, Q1, Year 4, Q1
2.1.3.2 Follow-on technical assessments as necessary, given site considerations; implementation and capacity building	? TBD	TBD
Outcome 2.2: Enhanced biodiverse agroforestry production on Social Forestry Concessions leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs)		
Output 2.2.1 Community-based (PPPP) Bamboo agroforestry (and other NTFP commodities) operational, conditional community-BD conservation agreements (ICLP) and investment-ready through feasible value-chains (linked to financing Comp 3)		
2.2.1.1 Recruit and deploy technical experts to work full time across 5 sites to support implementation of business models: coffee, cashew, kenari, cocoa, sugar palm, bamboo, weaving inputs, agroecology solutions, NTFP and ecotourism.	? Summary reports and recommendations	Quarterly, each year
2.2.1.2 Development of community-based processing facilities, post-harvest storage and related improvements	? First facilities established	Year 2, Q1

2.2.1.3 Product development, testing, meeting production standards, training (implemented by Talasi, Javara/Seniman Pangan; Kreologi; PT Royal Coconut; PT Agri Spice Indonesia; Wulang Pari Coffee	? Assessment reports	Year 2, Q1 onwards
2.2.1.4 Identification of markets and off-takers/buyers, negotiation, product branding	? Summary reports, recommendations	Year 2 onwards
2.2.1.5 Siting and development of bamboo buildings for ecotourism and related tourism activity offerings, capacity-building, market development and promotion	? Site plans and architectural designs ? Implementation plans	Year 2 Year 3
2.2.1.6 Loans to farmers, financial assistance for farm-scale production, creation of financial disincentives so that increased production is linked to deforestation-free, biodiversity, climate and LDN objectives	? Loan agreements	Year 2, 3, 4 onwards
Component 3: Sustainable sources of financing for the implementation of integrated landscape conservation and management		
Outcome 3.1 Technical assistance so public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD		
Output 3.1.1 Blended/sequenced investments mobilized through agreement with private sector, financers/banks and local producers (particularly women) to realise livelihood targets and enable biodiversity-friendly business ventures		
3.1.1.1 Agri-business economist/finance experts sequence financing, lining up commitments at different stages of product development (grant and loan), secure financial commitments from private sector (all stages/phases of value chain, from production to off-taker agreements), identifies options to utilize budgetary funds allocated to the village, secures commitments from provincial development banks, and relevant ministries (Cooperatives and SMEs , KUR programme, Industry	? Detailed financial analyses and reports, ? Financing agreements, MOUs, new policy commitments	Years 1-3 Years 2-4
3.1.1.2. Develop the fiduciary responsibility and reporting requirements for community-based cooperatives and farmer groups to receive funding, build their capacity to manage the financial commitments to achieve outcomes, and similarly work with government partners (provincial, kabupaten, kecamatan, village levels) to activate financing and achieve results	? Validated business plans, third-party audits ? Public commitments for lending and financing	Year 2, Q1 onwards Year 3, Q1 onwards
Output 3.1.2: Mainstream biodiversity and LDN lending criteria and secure new ICLP funding through village and development funds, Regional Incentive Fund, and regional credit unions		

3.1.2.1 Technical analyses to identify potentials and pathways to activate new incentives. Consultations with relevant agencies at government levels to develop implementation plans and troubleshoot barriers/obstacles.	? Technical analyses	Years 2-4, implementation Years 3-5
3.1.2.2 Work with regional credit unions and banks servicing cooperatives (e.g. Bank NTT) to develop mechanisms to mainstream biodiversity, climate and LDN objectives into lending portfolios (priority includes how Bank NTT's roll-out of the Province's livestock programme can include new mechanisms to only deliver funds to areas/farmers that are adopting improved pasture management practices, coralling and stopping pasture burning in Sumba + others)	? Loan agreements, linked to off-take agreements and investments in producer-level processing facilities and standards ? Livestock programme terms consolidated and linked to sustainability	Years 2-5 Year 2
Output 3.1.3: Implementation of ICLP through facilitating government fiscal mechanism including ecology-based transfers in Provincial (TAPE), District (TAKE) and National (TANE) budgets and other fiscal mechanisms		
3.1.3.1 Workshops, technical assessments and development of pilot for ecological indicators for TAKE TAPE TANE budgets in project sites/Provinces	? Detailed plan for piloting, with implementation steps articulated for local governments	Years 2-4
3.1.3.2 Technical analyses on other related fiscal mechanisms (Dana Desa, KUR, Regional Incentive Fund), workshops to troubleshoot implementation, piloting and implementation.	? TBD	TBD
Component 4: Monitoring and Evaluation		
Outcome 4.1: Integrated and effective monitoring and evaluation system in place		
Output 4.1.1: Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1)		
4.1.1.1 Project-level M&E systems developed for on-going performance evaluation of BD, LDN, poverty reduction and gender targets, develop kecamatan or kabupaten-based M&E indicators and measures relevant to the SDGs and other performance measures (GHG emissions, waste, etc.) to help inform broader measure of project impact; identify how to link M&E to Community Biodiversity Monitoring Programmes est. under Outcome 2.1.1.	? Refer to M&E plans	Refer to M&E plans
Output 4.1.2. Project progress timely reported		

4.1.2.1. Half yearly progress reports and PIRs submitted to Implementing Agency	?	Refer to M&E plans	Refer to M&E plans
4.1.2 Output 4.1.3. Mid-term review conducted			
Refer to M&E plans	?	Refer to M&E plans	Year 3
Output 4.1.4. Terminal Evaluation conducted			
Refer to M&E plans	?	Refer to M&E plans	Upon technical completion (Year 6)

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures for GEF projects. Project monitoring and reporting requirements, and templates are an integral part of the UNEP legal instrument, to be signed by the EA and UNEP, ensuring it is consistent with the GEF Monitoring and Evaluation policy.

As lead Project Executing Agency, KSDAE is responsible for the project M&E Plan, also referred to in this document as the Monitoring, Evaluation and Learning (MEL) System. KSDAE will lead in completing the design of the project?s M&E Plan, including the spatial data systems to track improvements in land management, GHG emissions reduced, and socio-economic indicators. The Project Results Framework presented in Appendix 4 includes SMART indicators for the project?s objective and expected outcomes, mid-term and end-of-project targets and Means of Verification for each indicator, including specifically related to gender, including the GEF Core Indicators. Key assumptions and risks are specified for each Outcome. These indicators plus the key deliverables and benchmarks summarised in Appendix 6 are the main metrics and tools for assessing project implementation progress, and whether project objectives and expected outcomes are being achieved. Costs associated with implementing the M&E Plan are summarized in Appendix 7 and are integrated in the overall project budget.

The draft M&E Plan will be discussed and revised as necessary in a M&E workshop at project inception. The M&E workshop will ensure that project partners and staff understand and agree with their roles and responsibilities with regards to project monitoring and evaluation, and how performance will be measured, and iterative adjustments made over implementation.

Day-to-day implementation of the M&E Plan will be coordinated by the PMU, with the project coordinator being responsible for the correct design and implementation of the Plan. The MEL consultant will provide technical support. All the project execution partners will have clear responsibilities to collect and report specific information to track workplan implementation progress, report implementation challenges/risks and actions taken to address them, and on field data gathering required to generate indicator values on

project objective and outcomes. The Project Coordinator will also inform UNEP of any risks, delays and challenges faced during implementation so that the appropriate support or corrective measures that have been or can be adopted in a timely fashion.

The Project Coordinator, Technical Advisor and Site Coordinators will make quarterly reports on progress to the Project Steering Committee members and interested central and provincial government agencies. Ministries and State government departments and will discuss project strategies with them. Based on feedback, the PMU will make recommendations concerning the need to revise any aspects of the Results Framework or the M&E Plan to the Project Steering Committee. Any such changes will be advised in advance, by the Project Coordinator to UNEP?s Task Manager, which has responsibility to ensure that the project meets UNEP and GEF policies and procedures. The MoEF and UNEP will also review the quality of draft project outputs (selected key final outputs), provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of technical outputs and publications.

Baseline values for species and habitats will be refined and affirmed early in implementation, under Output 1.1.1.4, under the task of completing the landscape and species protection analysis in the KBA/IBAs and surrounding areas, to confirm priority species and locally specific conservation action, the needed ecological and spatial context of habitat protection and restoration, and optimised land-use investments. This is when the detailed plans for restoration, including species, capacity, and longer-term management to ensure success is completed. Output 1.1.1.8 provides for the analyses of future climate change impacts in relation to biodiversity values, agricultural production, water, livelihood requirements, for ICLP planning. This is an important activity to test assumptions and also gauge the degree to which future climate impacts may affect project targets, and how the project can adapt accordingly.

Importantly, the project seeks to build community participation in monitoring (to be pursued longer than just the project lifespan). Outcome 1.1.1.9 will be engaged early on during project implementation to develop plans for community-based monitoring and other monitoring systems required for the project to effectively address driver pressure and report on change in the status of selected species at mid-term review and project completion. The project will build capacity of community-based ?guardian observers? who will be trained to collect information at site levels and report on progress over time.

Baseline values for socio-economic indicators will be completed under Output 1.2.1.5 as livelihoods assessments completed at each site during project inception. This is for purposes of measuring the impacts of the biodiversity-friendly business models, and ensuring the project achieves its livelihood and gender targets. All baseline data gaps will be addressed during the first year of project implementation.

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager?s supervision will be on outcome monitoring, without neglecting project financial management, progress in the planned activities, and assessment of the quality of deliverables for selected items key to the project. Progress on delivering the agreed project global environmental benefits will be assessed with the Steering Committee at agreed intervals. Project risks and assumptions will be regularly monitored by the PMU, project partners and UNEP. Risk assessment and rating is an integral part of the PIR. The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

In line with UNEP Evaluation Policy and the GEF?s Monitoring and Evaluation Policy the project will be subject to a Terminal Evaluation (TE) and, additionally, a Mid-Term Review (MTR) The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office.

The mid-term review will take place on the first half of year 4, led by UNEP. The review will include all parameters included in the standards for MTR and TE evaluation by UNEP (and based on guidelines by the GEF Evaluation Office), and will be carried out using a participatory approach, in which partners participating in the project will be fully involved.. The Project Steering Committee will develop a management response to the review recommendations, along with an implementation plan, and will monitor whether the agreed recommendations are being carried out. Additionally, the PMU will undertake logistical arrangements for and accompany a UNEP supervisory mission, if it chooses to undertake one at any time during the project implementation.

*I*n line with the GEF Evaluation requirements and UNEP?s Evaluation Policy, all GEF funded projects are subject to a performance assessment when they reach operational completion. This performance assessment will be either an independent Terminal Evaluation or a management-led Terminal Review.

In case a Review is required, the UNEP Evaluation Office will provide tools, templates, and guidelines to support the Review consultant. For all Terminal Reviews, the UNEP Evaluation Office will perform a quality assessment of the Terminal Review report and validate the Review?s performance ratings. This quality assessment will be attached as an Annex to the Terminal Review report, validated performance ratings will be captured in the main report.

However, if an independent Terminal Evaluation (TE) of the project is required, the Evaluation Office will be responsible for the entire evaluation process and will liaise with the Task Manager and the project implementing partners at key points during the evaluation. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP staff and implementing partners. The direct costs of the evaluation (or the management-led review) will be charged against the project evaluation budget.

The TE will typically be initiated after the project?s operational completion. If a follow-on phase of the project is envisaged, the timing of the evaluation will be discussed with the Evaluation Office in relation to the submission of the follow-on proposal.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalized.

The evaluation report will be publicly disclosed and will be followed by a recommendation compliance process. The evaluation recommendations will be entered into a Recommendations Implementation Plan template by the Evaluation Office. Formal submission of the completed Recommendations Implementation Plan by the Project Manager is required within one month of its delivery to the project team. The Evaluation Office will monitor compliance with this plan every six months for a total period of 12 months from the

finalisation of the Recommendations Implementation Plan. The compliance performance against the recommendations is then reported to senior management on a six-monthly basis and to Member States in the Biennial Evaluation Synthesis Report

The Costed M&E Plan is detailed in the following table:

Costed M&E Plan

Type of M&E Activity	**Responsible parties**	**GEF M&E Costs (US$)**	**Time Frame**
Project inception workshop	International Senior Project Advisor, Project Coordinator, M&E Officer 4.1.1.1 Project-level M&E systems developed for on-going performance evaluation of BD, LDN, poverty reduction and gender targets;	15000	Within 3 months of project start-up
M&E Inception Workshop: Training of project staff and partners on the project?s MEL system, (small group, following project inception workshop, 2 days) (Refer to Output 4.1.1.1 in ProDoc budget)	M&E Officer,	5,000	Within 3 months of project start-up
Development of site-specific socio-economic surveys and baselines	Project Coordinator, M&E Officer, sub-contracts	10000	Within 5 months
Monitoring and reporting of project progress against annual workplan	MEL consultant, project coordinator and PSC	0	Quarterly progress/performance indicators reporting

Develop kecamatan or kabupaten-based M&E indicators and measures relevant to the SDGs and other performance measures (GHG emissions, waste, etc.) to help inform broader measure of project impact (and work to integrate these into relevant government levels)	MEL consultant	0	Within 6 months
Develop plan for how to link M&E to Community Biodiversity Monitoring Programmes (Refer to Outcome 2.1.1.)	Project Coordinator and MEL consultant	15000	Within 10 months
Semi-annual Progress Reports to UN Environment Programme	Project Coordinator	0	Within 1 month of the end of reporting period
PIR	Project Coordinator	0	Annual. Within 1 month of the end of reporting period
Co-financing reports	Project Coordinator	0	Annual. Within 1 month of the PIR reporting period
Women/women?s groups survey design	MEL and Gender consultant	10,000	Baseline, mid-term and end of project
Adat community surveys (baseline and mid-term)	MEL consultant	10,000	Baseline and mid-term
Mid-term and End of project M&E survey	MEL consultant	30,000	Mid-term and end of project
MEL consultant	PMU	100000	6 years of project implementation, through final reporting
Survey and mapping to support activity planning	MEL consultant and sub contracted partners	60,000	Years 1,4 and 6

Mid-Term Evaluation (external)	External consultant, contracted and supervised by UN Environment Programme (Task Manager)	33,000	First quarter, Year 4 of project implementation
Project Final Report	Project Coordinator, supported by MEL consultant and CEPA officer	0	Within 2 months of the project completion date
External Terminal Evaluation	External consultant, contracted and supervised by UN Environment Programme (Task Manager)	45000	Within 6 months of the project completion date
Annual independent audit	Project coordinator, finance and admin officers	40000	Annually
Total M&E Plan Budget (US$)	Total M&E costs	**373 000**	

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 aims to benefit 10% of the population in the target areas, with 40% of those beneficiaries being female. The total target population in the areas is 559,000, which translates to a beneficiary target of 55,900 individuals. Out of these beneficiaries, at least 22,350 will be women across all the target areas.

The project rationale is based upon improving socio-economic outcomes for communities as a means of addressing the drivers of habitat loss. This assumes that if people derive livelihood benefits from biodiversity, they will have an incentive to better steward the land and resources around them. Especially in these sites with high poverty levels, livelihood improvements that are tied to biodiversity and land degradation will not only improve the health and welfare of local people, but will reduce their poaching, tree felling, and other habitat and land degrading activities.

Predicting the socio-economic impact of the project on the target populations is challenging due to the lack of detailed market assessments for the individual target regions, firms, and commodities/activities that will be involved. These assessments will be conducted during the first phase of project implementation. However, it is possible to estimate the approximate income that would be required to raise the population above the poverty line, which would be a significant achievement in some of the target regions. This assessment will help determine the feasibility of the project's objectives.

The populations in the target regions are recognized as poor, with rural areas generally facing greater poverty levels compared to urban areas. Female-headed households, in particular, tend to be among the poorest. As all the target areas are rural, Manggarai regency has a notable trend of men leaving to find

work in the palm oil sector in Kalimantan and Malaysia. Consequently, there is a significant number of female-headed households in the region, estimated at around five thousand according to the Head of the Regency. According to the Central Bureau of Statistics (BPS), the proportions of the regency populations falling below the poverty line are shown in the following table, based on results of the 2022 National Socio-economic Survey (SUSENAS).[1]

Table 18: Poverty rate per Province/Kabupaten

Province/Kabupaten	**2022 Poverty Rate (%)**
Gorontalo/Pohuwato	17.87%
Gorontalo/Boalemo	18.74%
South Sulawesi/Gowa	7.36%
South Sulawesi/Bulukumba	7.39%
South Sulawesi/Bantaeng	9.07%
South Sulawesi/Sinjai	8.80%
East Nusa Tenggara/Sumba Timur	28.22%
East Nusa Tenggara/Alor	20.25%
East Nusa Tenggara/Manggari	19.84%

Source: SUSENAS, 2022.

However, it is possible to estimate the approximate income that would be required to raise the population above the poverty line. The step-by-step calculations for these are shown in the following table (table 19). Poverty rates are calculated at the kabupaten, or regency level, and the first step is to determine the size of the populations below their respective poverty lines in each of the target regions. The populations for the three targets in East Nusa Tenggara are estimated as contiguous within a regency, and those numbers are used directly. South Sulawesi and Gorontalo target regions are split over two or more regencies, and an approximate split of the land area is apportioned to the various regencies. The resulting population figures are combined with the regency poverty rates to roughly calculate the number of people below the poverty line in each target area.

The next step is to estimate how much annual income would be required to bring *all* the poor in the target area up to the poverty line (assuming perfect distribution of new income). The key to this calculation is the poverty gap index ? a measure that adds up the extent to which individuals on average fall below the poverty line (i.e. the depth of poverty, as BPS calls it), and expresses it as a percentage of the poverty line.[2] When the poverty gap index is multiplied by both the value of the poverty line and the total number of individuals in the region, the result is the total amount of money needed to bring the poor in the population up to the poverty line (again, assuming perfect targeting of transfers).

As shown in the table, the total across all target areas in the three provinces comes to less than one million dollars per year paid to (primarily) farmers. How feasible is this? In Gorontalo, $41,000 a year across cocoa, cashew and coconut seems feasible. In South Sulawesi, a 2021 survey of farmers just outside the target area in Bantaeng, Bulukumba and Sinjai reported they were each earning IDR 25 million per year from vanilla alone, making IDR 156 million from those three regencies seem feasible. The largest section of the South Sulawesi target area lies in Gowa regency, where the poor would have to add IDR 563 million ($39,000) per year to bring all of them up to the poverty line. Considering the range of activities across horticulture, specialty Arabica coffee and ecotourism, this amount is not unreasonable.

The largest gaps to be filled appear in East Nusa Tenggara, especially in Manggarai with its relatively large population. To put the IDR 8.2 billion shortfall in Manggarai into perspective, one medium-sized coffee processor selling 22 tons of specialty Arabica beans last year to domestic roasters paid farmers approximately IDR 1.2 billion for those beans, plus income from another 80 tons of slightly lower quality coffee. With the addition of horticulture and ecotourism development, the target should be achievable.

In fact, the assessments presented above are a substantial overstatement of project expectations as the calculations in the table represent the total income needed to bring *all* the poor in the target regions up to the poverty line, whereas the project expects to provide benefits to 10% of the target population and not the

entire population. Careful collaboration with the private sector and other partners along with close monitoring & evaluation will help to ensure the intended distribution of benefits.

Table 19: Amount of income to be generated by project to get above the poverty line

	Approx. Share Target Population	Target Population	2022 Poverty Rate	No. Poor in Target Area	2022 Poverty Gap %	2022 Poverty Line IDR Monthly	Additional ANNUAL IDR needed to meet Poverty Line	Additional ANNUAL USD needed to meet Poverty Line
Pohuwato	80%	21,825	17.87%	3,900	2.64%	345,924	427,406,076	$29,476
Boalemo	20%	5,456	18.74%	1,022	2.77%	472,906	160,729,542	$11,085
Gorontalo Total Target		27,281					588,135,618	$40,561
Bulukumba	10%	18,767	7.39%	1,387	0.99%	390,040	64,263,917	$4,432
Bantaeng	10%	18,767	9.07%	1,702	1.32%	394,116	106,263,398	$7,329
Gowa	70%	131,370	7.36%	9,669	1.13%	429,222	562,748,940	$38,810
Sinjai	10%	18,767	8.80%	1,652	1.19%	374,226	88,255,546	$6,087
South Sulawesi Total Target		187,671					821,531,801	$56,657
Sumba Timur	100%	32,610	28.22	9,203	5.54%	414,832	2,537,879,919	$175,026
Alor	100%	57,819	20.25	11,708	3.42%	400,858	1,926,165,106	$132,839
Manggarai	100%	253,562	19.84	50,307	3.34%	407,261	8,211,573,276	$566,315
NTT Total Target		343,991					12,675,618,301	$874,181
Project Total		558,943					14,085,285,720	$971,399
*estimated exchange rate IDR/USD=14,500								

[1] https://www.bps.go.id/indicator/23/192/1/percentage-of-poor-population-p0-by-province-and-area.html

[2] https://datanalytics.worldbank.org/PIP-Methodology/surveyestimates.html

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.

This is a moderate risk project particularly the SS on climate change and biodiversity. The concerns and needs of the marginalized and vulnerable groups should also be closely monitored and considered for instance in developing funding criteria. Ensure they are meaningfully engaged throughout the project management cycle, have access to information, and grievance mechanisms.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
GEFID 10913_SRIF	CEO Endorsement ESS	
Indonesia PIF _SRIF- revised 29 Dec 2021 - CLEAN	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).

The detailed results framework is provided in the table below.

Results Framework

Smart Indicators				**Means of Verification**	**Risks and Assumptions**
Objectively Verifiable Indicators	**Baseline**	**Mid-Term Target**	**End of Project Target**		
Component 1: Planning and governance for integrated landscape conservation and reduced land degradation					
Outcome 1: **Output 1.1**: Plans for improved conservation management and reduced land degradation in Wallacea landscape hotspots through ecologically and spatially optimized land and forest management agreed upon. **Output 1.2**: Improved landscape management with conservation outcomes through secure local governance and land tenure as a basis for enhanced agroforestry value-chains in social forestry concessions.					
Outcome Indicator Effective planning and governance for integrated landscape conservation and reduced land degradation			Effective People, Public, Private Partnerships are formed and agree to conservation assessment reports, multi-species conservation plans, plans for biodiversity-friendly business models, resulting in 5 completed ICLPs.		

Indicators: **1.1** *(1) Ecological habitat requirements and conservation action for (keystone) species identified* **Target:** Species conservation assessment reports for two (2) Threatened species or one (1) fauna/flora group per landscape, focused on KBA/IBA sites	0	5 species conservation assessment reports for two (2) threatened species or one (1) fauna/flora group per landscape, focused on KBA/IBA sites	Same	5 completed reports, reviewed and verified by PMU and PSC as meeting all requirements to guide related conservation planning	Risks: Inadequate information exists on site-specific habitat utilization and requirements in each site, rather is more generalized across landscapes Assumptions: - Adequate information exists to guide site-specific planning - Adequate species information exists outside protected areas
(2) Conservation plans for globally threatened or endemic species guide improved area-based conservation action **Target:** *at least one (1) multi-species conservation plan in (5) landscapes, including recommended action related to FMU, SLM and social forestry*	0	at least one (1) multi-species conservation plan in (5) landscapes, including recommended action related to FMU, SLM and social forestry 5 completed ICLPs	Same	Conservation plans developed from species conservation assessment reports that are verified by PMU and PSC to meet the objectives to adequately inform ICLP design PMU and PSC review and verify ICLPs	Risks If there is inadequate information at site levels on species habitat requirements, this would have negative impacts on conservation plan development Assumptions Adequate information (including spatial) exists for adequate conservation planning

Indicators 1.2 *(3) Total # of social forestry concessions granted including for commodity production and access for women, integrating BD objectives.* *>30% of concessions led by women* **Target:** 15 new tenures; > 100,000 ha	0	7 new social forestry tenures; > 50,000 ha >15% of concessions led by women	15 new social forestry tenures; > 100,000 ha >30% of concessions led by women	Public records of social forestry concession designation	<u>Risks</u> Adat communities concerned about tenure rights may be less interested in social forestry than Hutan Adat (which would be harder to acquire) <u>Assumptions</u> - Communities view 35-year social forestry concessions as of interest, given their tenure security issues - Government is efficient in processing social forestry licenses
Component 2: Implementation of the ICLP in alignment with local governance, impact financing and community-development					
Outcome 2.1: Enhanced area-based biodiversity conservation and restoration as well as reduced drivers of biodiversity loss based on the agreed ICLP and KPH management plans **Outcome 2.2**: Enhanced biodiverse agroforestry production on Social Forestry Concessions leading to enhanced soil, water and woody vegetation, and community support for protection of biodiversity (outside KBAs)					

Outcome Indicator: ICLPs successfully implemented and operationalized with communities, governments, and private sector			The detailed ICLP plans are effectively implemented, biodiversity-friendly business models are developed and operational, demonstrating tangible livelihood benefits for local communities.	Project documentation, spatial documentation and maps, private sector and community verification of viable biodiversity-friendly business models	<u>Risks</u> - Implementation is almost entirely funded through co-finance, so loss of any co-finance commitments would have major impact on implementation success <u>Assumptions</u> - Ability to address drivers of BD loss, land degradation and deforestation depends on a range of factors the project can influence - The enabling factors (project funding disbursements, co- finance commitments, multi-level government support) can be managed effectively

Indicators 2.1: *(4) Area-based protection of key species habitat* **Target:** Habitat needs (e.g. feeding, resting, breeding or viable populations) for: Sulawesi Babyrusa *Babyrousa celebensis* (VU), Mountain Anoa *Bubalus quarlesi* (EN), Knobbed Hornbill *Rhyticeros cassidix* (VU), and Maleo *Macrocephalon maleo* (CR), Lompobattang Flycatcher *Ficedula bonthaina* (EN), Makassar Tarsier *Tarsius fuscus* (VU), Flores scops-owl *Otus alfredi* (EN) and Flores Hawk-eagle *Nisaetus floris* (CR), Yellow-crested Cockatoo *Cacatua sulphurea* (CR), Oru, *Chlootham nus reholttumianus* (VU), Sumba Cockatoo *Cacatua citrinocristata* (CR), *Santalum Album* (VU), *Eucalyptus urophylla (EN)*	0	Based on conservation assessment reports and multi-species conservation plans, which result in ICLP commitments on habitat protection, 50% of area-based habitat requirements are met in each landscape	50% of area-based habitat requirements are met in each landscape	Spatial plans, maps, documentation, regulatory changes, demonstration of addressing drivers	<u>Risks</u> The drivers of BD loss and habitat conversion are ingrained and strong, and overcoming them will be challenging <u>Assumptions</u> Depends on the ability to effectively address drivers of habitat conversion

(5) *# of ha landscape under improved practices for: (i) Biodiversity - breeding, feeding or resting requirements; (ii) enabling BD through productive agroforests and HCVF protection* **Target:** Total of at least 510,130 ha, consisting of 208,543 ha (KBA), 120,394 Production forest in or near KBA, plus 181,193 Areas for Other Land Use (APL) included in five ICLP	0	255,000 ha	510,130 ha	Spatial plans, maps, documentation, regulatory changes, demonstration of addressing drivers	<u>Risks</u> -The KBA areas outside conservation areas are under driver pressures that are complex and require interventions at multiple levels -The APL and production forest lands may be the hardest to have influence on <u>Assumptions</u> -The ICLPs contain reasonable aspirations that are implementable -Driver pressures can be adequately addressed through project activities

(6) Degraded high-BD forest within and adjacent to KBAs restored **Target**: 8,003 ha	0	4,000 ha	8,003 ha	Spatial maps and documentation Ha reforestation with seedlings (alive after 1-year) and/or improved forest cover/ condition for landscape connectivity	<u>Risks</u> Priority sites are difficult to restore due to ongoing human and livestock use <u>Assumptions</u> - Local labour can be found and utilized to plant and maintain areas - Restoration plans will be agreed upon and implemented
(7) Reduction in drivers of BD loss as stated in ICLP/Species Conservation Plans **Target:** 50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines	0	25% reduction in frequency of bushfires, 20% reduction in poaching of key species; 15% reduced illegal encroachment ? as against baselines	50% reduction in frequency of bushfires, 40% reduction in poaching of key species; 25% reduced illegal encroachment ? as against baselines	Spatial documentation and maps (satellite imagery verification), verification of species population statistics, focus group interviews	<u>Risks</u> -Land management practices using fire are deeply embedded, and poaching is a lucrative activity <u>Assumptions</u> -Land users respond positively to awareness raising and incentives and change land management practices through burning -Options to poaching will be economically viable

(8) FMU/KPH operations improved with biodiversity and SLM outcomes **Target:** 13 KPHs totaling 277,130 ha	0	7 KPHs totaling 135,000 ha	13 KPHs totaling 277,130 ha	KPH planning documents Spatial planning	<u>Risks</u> There are competing interests in KPH planning <u>Assumptions</u> FMU planning processes allow for ICLP input
Indicators 2.2 *(9) # agroforestry on social forestry concessions on APL and Production Forest:* **Target:** >100,000 ha	0	>50,000 ha	>100,000 ha	Spatial maps and documentation. Ha of planting or improved uses of existing agroforestry species	<u>Risks</u> The success of the biodiversity-friendly business models is crucial for agroforestry to improve livelihoods <u>Assumptions</u> -The biodiversity friendly business models based on agroforestry systems are operationalized in a reasonable timeframe so that local people derive livelihood benefits -Livelihood benefits are determinants of long-term local support

(10) % of population in project sites derive a portion of their yearly income from biodiversity-friendly community-based businesses sourced from <100,000 ha agroforests **Target:** 10% of population, and over 40% is women; Direct beneficiaries co-benefit from GEF investment: Total of 55,900, of which 22,350 are female and 33,550 are male **(Core Indicator 11)**	0	5% of population, and over 20% is women; Direct beneficiaries co-benefit from GEF investment: Total of 27,000, of which 12,000 are female and 15,000 are male	10% of population, and over 40% is women; Direct beneficiaries co-benefit from GEF investment: Total of 55,900, of which 22,350 are female and 33,550 are male	Documentation, focus group interviews	Risks: The largest risk is in the ability to meaningfully engage women. Many of the landscapes experience major disparities in gender, and many women lack adequate access to education, financial services, and are marginalized in decision-making. Assumptions: The project can work effectively with both genders, build capacity and empower women

(11) Agroforest BD, SLM and GHG indexes improving at midterm and end of project **Target:** BD and SLM TBD; GHG: 8,733,744 MtCo2e AFOLU emissions reduced by 2043 **(Core Indicator 6)**	Baselines for BD and SLM to be established in year 1	TBD	TBD	Spatial maps and documentation AFOLU GHG emission reductions are based on Tier 1 default values for Indonesian forest types	Risks Driver pressures are strong and also may change over the next 6 years, thus reaching BD, LD and GHG targets requires effectiveness in addressing drivers Assumptions -The project will adequately address driver pressure, and will iteratively assess drivers -AFOLU emission reductions assume no other intervention in the project area (e.g. unforeseen road development)
Component 3: Sustainable sources of financing for the implementation of integrated landscape conservation and management					
Outcome 3.1 Technical assistance so public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD					

Outcome Indicator Public and private investments and fiscal measures enable implementation of ICLP through commodity-based agroforestry value chains, area-based conservation and other landscape interventions benefitting biodiversity and reduced LD			Sustainable sources of financing for the implementation of ICLPs operational and with longer-term public financing commitments	Project documentation, public records, budgetary commitments, documentation on private sector investments	<u>Risks</u> If public or private support and investment aspiration changed, it could negatively affect project outcomes <u>Assumptions</u> -The private sector commitments thus far provide assurance of adequate investments in all aspects of the value-chain necessary -Public sector commitments indicate on-going government support regardless of major changes in the national-level administration

Indicators 3.1 (12) % of investment for biodiversity-friendly businesses from private sector origin, with > 15% of investments applied to environmental protection and restoration Target: 45% of investment	0	> 25% of investment from private sector origin	> 45% of investment from private sector origin	Project documentation, interviews with private sector investors, verification of their statements	<u>Risks</u> Private sector commitment will rely on the viability of the biodiversity-friendly business models, and producers able to meet market demand and reliability <u>Assumptions</u> Private sector co-finance commitments to the project are viable and ambition is reasonable, given market demand for existing and new product lines

(13) Number of new business ventures led by women Target: >30%	0	>20% of new business ventures are women-led	>30% of new business ventures are women-led	Project documentation, focus group interviews at site levels	Risks Women in these landscapes face considerable challenges, including not being included in decision-making, and lack adequate access to education and financial services. Assumptions By working with local women, the project can build their capacity and inclusion to the degree that they can step forward as leaders

(14) Activating innovative national-level fiscal incentives; based on BD conservation performance at provincial and village levels and leading to increased government budget and lending for regions based on biodiversity conservation and land restoration performance. Target: 2 instruments	0	> 1	> At least two instruments	Data analyses on availability of ecology-based transfers at provincial, district, and village levels in government budget	Risks With the 2024 national election, there may be political changes that alter the current support for these measures Assumptions -The recent government commitments to fiscal reform and ecological fiscal transfer has been growing over many years such that even with political changes, the mechanisms will likely not be replaced -The mechanisms for incentives are already existing
(15) Target: 50% of funds required for restoring 8,003ha and establishing 100,000 ha agroforests coming from new public and private investments	0	>25%	> 50%		Risks Restoration requires consistent investment on a per ha basis to achieve outcomes Assumptions Public sector financing is easier to raise than from the private sector
Component 4: monitoring and evaluation					

Outcome 4.1 Integrated and effective monitoring and evaluation system in place					
Outcome Indicator Project-level M&E systems for continuous improvement in meeting biodiversity and LD outcomes (also linked to Community Biodiversity Monitoring Programmes est. under 2.1.1) 4.1.2 Project progress timely reported 4.1.3. Mid-term review conducted 4.1.4. Terminal Evaluation conducted	M&E system developed				

Annex A(2): Terms of Reference for Committees and Units

Project Steering Committee

The Project Steering Committee (PSC) will serve as the project?s oversight , liaison and support body. It will meet at least twice each year to review project progress and ? conditional upon the formal review and approval by UNEP- endorse annual work plans and budgets. The PSC is responsible for providing the strategic guidance and oversight to project implementation to ensure that it meets the requirements of the approved Project Document and achieves the stated outcomes. The PSC will be chaired by MoEF KSDAE, as the National Nodal Agency. Membership will consist of representatives of the Provincial BKSDAs, Environmental Bamboo Foundation as Co-EA, and UNEP. Other members will be invited as necessary to reach no more than ten individuals, including representatives from the private sector, and also civil society active in all landscapes (likely Burung Indonesia). Other organizations may be invited to attend, at the discretion of the Chair, including from other Directorate Generals within MoEF.

The Terms of Reference for the PSC are as follows (to be validated at the Inception workshop)

? Provide strategic guidance to project implementation;

? Ensure the project implementation?s consistency with national and provincial sectoral and development policies

? Review and ensure adequate coordination between and integration with programmes and units within MoEF, so that the Co-EA can effectively implement project activities with government support via the PMU;

? Review and endorse annual proposed project work plans and budgets, for submission to UNEP (for annual approval)

? Approve any major changes in project plans or targets and ensure approval from UNEP;

? Oversee monitoring, evaluation and reporting in line with GEF requirements;

? Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;

? Negotiate solutions between the project and any parties beyond the scope of the project;

? Review and track whether the UN Environment Programme - Environmental and Social Sustainability Framework (ESSF) policy is applied throughout project implementation; and, address related grievances as necessary.

Project Management Unit

The day-to-day administration of the project will be carried out by the Project Management Unit (PMU) consisting of the Project Director (co-financed by Executing Agency KSDAE), Project Coordinator, Monitoring, Evaluation & Learning (MEL) Officer, Policy/ Government Liaison Officer, Spatial Analyst, and Finance Officer. The PMU is the central ?hub? for all project management and will oversee the effective executive of project activities in the 5 sites as per the workplan and timetable (Appendix 5). Project staff will be recruited following Government of Indonesia regulations. The PMU will be housed within KSDAE, with a liaison between EBF (co-Executing Agency) and MoEF in Jakarta.

The PMU will be responsible to:

? Ensure that project implementation is delivered as planned, on time, to budget, and of the quality required, and according to the project document and meeting GEF and UNEP fiduciary standards;

? Foster, establish and maintain links with other related national and international programmes and initiatives, including cultivating and obtaining additional co-finance as the project develops;

? Organize, contract and manage the technical experts, consultants, sub-contractors and supervise their performance;

? Ensure that the project is implemented as a cohesive operation by conducting integrated planning and maintaining close coordination and integrated progress reporting on staff missions, work of consultants and sub-contractors, implementation partners, private sector partners, and other project work;

? Liaise regularly with MoEF Directorate General Offices, and other Government of Indonesia Ministries, to ensure cross-sectoral coordination occurs at national level and down to Provincial levels;

? Troubleshoot issues as they arise, at site levels and all levels the project implements activities at, in a timely manner, reporting on issues to the PSC at least quarterly (and issues needing their resolution to be brought to PSC meetings);

? Ensure clear channels of communication between the various elements of the project, for example ensuring that advice and recommendations from the PSC or the Technical Experts are implemented at the site levels;

? Monitor project progress and delivery, making recommendations to the PSC for changes or adjustments in the activities and outputs, and related project implementation arrangements that may be required, as necessary ? and to be approved by the GEF IA;

? Ensure that all financial, quantitative and qualitative reports on project progress and targets (as per Appendix 8) are fulfilled to the required timeframe and quality standard.

Terms of Reference for Key Project Staff

Project Director

Background

The Project Director within KSDAE will play a key role to achieve project outcomes by galvanizing all necessary staff and resources. The Project Director will review and oversee the PMU operations, ensuring the Programme Coordinator has all institutional, programme and administrative support to achieve outcomes. This position will be co-financed by KSDAE.

Duties and Responsibilities

? Ensure that the Project Coordinator has full institutional, programme and administrative support to achieve project outcomes

? Review annual work plans and budgets and ensure institutional, programme and administrative support is provided to adequately reach yearly targets and goals;

? Sign off on all formal reports, cash advance requests, financial statements, and sub-contracts under the GEF grant

? Foster, establish and maintain links with other related national and international programmes and initiatives

? Identification of additional national co-finance as the project develops

? Manage the project?s finance, oversee overall resource allocation and where relevant submit proposals for budget revisions to the PSC and UNEP

? Manage the overall Project, ensuring that all the activities are carried out on time and within budget to achieve the stated outputs

? Troubleshoot issues as necessary, liaising with co-EA, UNEP, and MoEF focal points.

Required qualifications and experience:

? A post-graduation qualification in agronomy, agriculture, environmental sciences, natural resource management or similar;

? At least 10 years of demonstrable, relevant, project/programme management experience ? preferably on internationally funded projects, in the area of agricultural development, forestry and/or sustainable landscape planning and development, preferably with work experience in remote regions of Indonesia.

Project Coordinator ? PMU

Background

The Project Coordinator will be recruited following Government of Indonesia regulations, in close coordination with co-EA, UNEP. The Project Coordinator will be responsible for the overall management of the Project and the PMU operations, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. The position is a full-time senior position, will be line-managed by Project director at KSDAE.

Duties and Responsibilities

? Ensure that the project is implemented as a cohesive operation by conducting integrated planning and maintaining close coordination and integrated progress reporting, working closely with site coordinators, consultants and sub-contractors, and project partners;

? Lead the development of the PPPPs in each project site, working with the support of the Site Coordinators.

? Lead the development of and agreement to the ICLPs in each project site, with the support of the Site Coordinator and technical consultants;

? Conduct integrated reporting to PSC, UNEP and Project Director;

? Prepare annual work plans and budgets for endorsement by the PSC and approval by UNEP, and keep PSC informed of project progress. With support from the project M&E staff, be responsible for establishing, data collection and reporting on the project M&E Plan;

? Act as the secretary to the PSC by drafting annual meeting agenda and preparing the minutes;

? Prepare regular progress and financial reports, and submit to UNEP for approval.

? Plan the activities of the project and monitor progress against the approved work-plans;

? Supervise and coordinate the implementation of project outputs by the project staff, consultants and sub-contractors, as per the project document, within the planned time and to a high-quality standard;

? Coordinate all project inputs and ensure that they adhere to UNEP procedures for nationally executed projects;

? Coordinate the recruitment and selection of project personnel, consultants and sub-contracts, including drafting terms of reference and work specifications and overseeing all contractors? work;

? Supervise and support the work of the rest of the PMU staff;

? Review terms of reference, project plans, consultant-produced plans and documents, providing substantive inputs and technical support to adjust as necessary and achieve high quality outcomes;

? Maintain regular communication with government Ministries whose portfolio is relevant to the project;

? Monitor progress of project in relation to gender, adat and social equity related outcomes.

Required qualifications and experience:

? A post-graduation qualification in agronomy, agriculture, environmental sciences, natural resource management or similar;

? At least 10 years of demonstrable, relevant, project/programme management experience ? preferably on internationally funded projects, in the area of agricultural development, forestry and/or sustainable landscape planning and development, preferably with work experience in remote regions of Indonesia,

? Experience in agricultural, forestry or NTFP value chain and livelihood improvement projects;

? At least 5 years of experience working with ministries or national institutions in Indonesia that are concerned with natural resource and/or environmental management;

? Experience with GEF project management a plus;

? Experience of having worked directly with financial institutions a significant plus.

Competencies

? Strong leadership, managerial and coordination skills, with a demonstrated ability to effectively coordinate the implementation of large multi-stakeholder projects, including financial and technical aspects.

? Ability to effectively manage technical and administrative teams, work with a wide range of stakeholders across various sectors and at all levels, to develop durable partnerships with collaborating agencies;

? Ability to administer budgets, train and work effectively with counterpart staff at all levels and with all groups involved in the project;

? Ability to coordinate and supervise Project Implementation Units (Site Coordination) in their implementation of technical activities in partnership with stakeholders in the PPPPs and project partners at site levels;

? Strong drafting, presentation and reporting skills;

? Strong communication skills, especially in timely and accurate responses to emails;

? Strong computer skills, in particular mastery of all applications of the MS Office package and internet search;

? Strong knowledge of agricultural, forestry or NTFP value chain and livelihood improvement activities;

? Excellent command of English and Bahasa Indonesia.

Technical Advisor (PMU)

Background

This position will be based in the PMU and will report to the Project Coordinator. They will have responsibility to ensure that the delivery and implementation of project activities in partnership with private sector partners in all sites is technically sound, financially feasible, activates necessary aligned investment and co-finance, and delivers on livelihood benefits. The Officer will ensure adequate development of local capacity is built within communities and to ensure maximum biodiversity benefits as a result of the business models. The advisor will oversee the work of partners and consultants contracted to deliver project outputs and maintain close relationships with the Ministry of Cooperatives and SME?s, relevant Provincial offices, and provincially-based development banks. The position is full time.

Duties and Responsibilities (assigned to project Components)

? Working closely with private sector partners, oversee the development of biodiversity-friendly business models in each of the 5 project landscapes;

? Build capacity of local communities to undertake the business models, working closely with partners;

? Ensure technically and financially sound project delivery in the project landscapes, in accordance with the project work plan and aligned with guidance from the Project Coordinator

? Ensure that the technical delivery of the project is socially inclusive, ensuring that women and adat communities have equitable access to livelihood activities, resources, knowledge and services that are generated by the project;

? With support from the site coordinators working in the project landscapes, coordinate biodiversity-friendly business model activities with private sector partners, sequencing and aligning investments to realize the value-chain activities;;

? Work to deliver on Outcomes under 3.1.1 on activating new sources of finance for biodiversity friendly business models through regional credit unions, banks, and central government sources of finance;

? Develop baseline indicators on livelihoods, track progress on these throughout the project;

? Support and oversee the CSO partners in the landscape, ensuring the delivery of the project results;

? Identify consultants for tasks specified in the project work plan, coordinate with the Project Coordinator and supervise their assignment, ensuring timely and complete reporting;

? Liaise with commodity and NTPF cooperatives, traders, and financiers to achieve project outcomes; Liaise with other commodity and NTPF cooperatives, traders, financiers and any other relevant actors in each landscape, so the project is aligned with and not competitive with other programmes in the project landscapes

? Attend PMU meetings and PSC meetings if requested.

Required experience and competencies:

? A post-graduation qualification in agronomy, agriculture, environmental sciences, natural resource management, rural economics or similar;

? At least 10 years? experience of technical project management in a subject related to landscape conservation, integrated natural resource management, product value-chains and community participatory work

? Significant experience working in agricultural sectors, in value-chains such as coffee, cashew, spices. Experience in nature-based tourism desirable;

? Experience of leading a team and managing projects in rural environments;

? Very good inter-personal skills, including the ability to work with stakeholders at all levels, facilitation of meetings, and experience with networking;

? Proficiency in the use of computer software applications, especially MS Word and MS Excel.

? Very good ability in written and spoken English and Bahasa Indonesia languages required.

Site Coordinators: (Popaguyo-Paguat, Gorontalo; Lompobattang, South Sulawesi; Manggarai, Flores; Alor, NTT; East Sumba, NTT)

Background

Each of the Site Coordinators will be located in each site, and will be responsible for overseeing the implementation of all project activities in each site, stakeholder engagement and development of the PPPPs and ICLPs in each site. The Site Coordinator is responsible for ensuring each of the project components, outcomes, outputs and activities is implemented in each site, working closely under the management of the Project Coordinator. The Site Coordinator will train and build local capacity of

local community groups, ensure roll out of community-based monitoring, work with Technical Officer on implementation of the biodiversity-friendly business models, social forestry and FMU planning, and all other aspects of the project.

Duties and Responsibilities

? Liaise with all relevant stakeholders in each site, ensuring there is broad-based awareness of the project among all relevant stakeholders, particularly women, adat and youth;

? Support the development of the PPPPs in each project site, working closely with the Project Coordinator;

? Support the development of and agreement to the ICLPs in each project site, working closely with the Project Coordinator, and technical consultants

? Support the execution of the biodiversity-friendly business models in each site, working closely with the Technical Officer and also with private sector and CSO partners;

? Deliver technical training and capacity-building activities to communities on biodiversity and land degradation neutrality, and in relation to key project activities (habitat protection, OECM establishment, social forestry concession establishment, FMU planning, amongst others as identified in the project work plan and results framework);

? Develop a network of farmer groups/cooperatives in each site, as part of the PPPP, to ensure the project has an organized means of communication and programme delivery for improved land management practices and biodiversity conservation and monitoring;

? Ensure the systems and processes are in place to monitor and support farmers to apply the practices they have been trained to implement;

? Collect field-level monitoring data to ensure project delivery is on track and of sufficient quality to achieve the targets set.

Required experience and competencies:

? A bachelors level degree qualification in agriculture, agronomy, forestry, environmental sciences, natural resource management or similar;

? At least 5 years? experience of working in community-based natural resources management, experience working on commodity/NTFP value-chains;

? Experience of designing and delivering technical training, including curriculum development, for example as a master trainer or trainer-of-trainers;

? Good knowledge of certification standards and processes;

? Very good inter-personal skills, including the ability to work with stakeholders at all levels, facilitation of meetings, and experience with networking;

? Proficiency in the use of computer software applications, especially MS Word and MS Excel;

? Fluent in Bahasa Indonesia and with proficiency in English.

Communications, education, publication and awareness (CEPA) officer - PMU

Background

The CEPA Officer will report to the Project Coordinator and will be responsible for the following tasks:

? Guide and support project coordinator and consultants in conducting capacity and training needs assessments

? Guide the development of training curriculum and modules

? Support in the delivery of training modules and effectiveness evaluation

? Draft policy briefs for discussion by PMU and project Steering Committee and develop strategy for presenting to government
? Engage government officials in dialogue with view to securing adjustments in policies and implementation procedures
? Prepare policy Guidelines and Operational Guidelines / Manuals in coordination with Government officials on agreed changes
? Lead the exchange and sharing of experiences and lessons learned with local and national stakeholders including relevant conservation and development projects

Finance Officer ? PMU

Background

The Finance Officer will report to the Project Coordinator and will be responsible for the financial management of the project.

Duties and Responsibilities (100 percent assigned to PMU)

? Keep records of project funds and expenditures, and ensure all project-related financial documentation is well maintained and readily available when required;

? Review project expenditures and ensure that project funds are used in compliance with the Project Document and UNEP financial rules and procedures;

? Provide necessary financial information as and when required for project management decisions;

? Provide necessary financial information during project audit(s);

? Review annual budgets and project expenditure reports, and notify the Project Coordinator if there are any discrepancies or issues;

? Consolidate financial progress reports submitted by consultants and contractors for implementation of project activities;

Policy/ Government Liaison Officer

Background

The Government Liaison is the EBF Executive Director, leading the project?s integration into Government of Indonesia agencies and across sectors. The Government Liaison works closely with the Project director and project coordinator in the first 3 years of the project to ensure the project has high-level government support during the new central government administration (starting in 2024). This position will build awareness and capacity among newly elected officials as well as career bureaucrats, to ensure the project has the political and practical support necessary, especially for component 1. The Government Liaison will activate implementation channels, help troubleshoot bottlenecks within and across government agencies, and also lead on communications and high-level outreach on the project in Indonesia. While only about 1/5 of the Executive Director?s time, the impact of this position on project outcomes is crucial, and the regularity of contributions will shift according to needs. This position will report to the project director.

Responsibilities:

? Regular communications and liaison with Echelon 1 and 2 levels within MoEF;

? Regular communications and liaison with other ministries (e.g. Ministry of National Development Planning, Ministry of Finance, Ministry of Home Affairs, Ministry of Cooperatives and SMEs);

? Participate as necessary in project planning, PSC, M&E and project oversight.

? Serve on and help facilitate the Project Steering Committee with KSDAE.

? Engage government officials in dialogue with view to securing adjustments in policies and implementation procedures;

Consultant - Agroforestry and nursery development

Background

The Consultant - Agroforestry specialist and nursery development, will lead in the development and planning for tree, fruit, grass, and other species to be planted, cultivated and managed in the project areas, mostly outside Hutan Lindung and in the social forestry areas. These will involve the species for the biodiversity-friendly business models, including agricultural commodities, non-timber forest products, bamboo in suitable areas, indigenous food crops, wild-harvested products. Care will be taken to research and document which are native and endemic species, and to propagate and disseminate those seedlings, to increase tree cover, restore degraded areas, and provide livelihood outcomes. The consultant will be a technical expert in this area, providing advise, species lists, technical inputs and trainings in all sites.

Duties and Responsibilities

? Document and detail key endemic and native species in each site, developing species lists for each site to guide propagation and nursery development;

? Conducting site analysis to determine the soil type, topography, climate, and existing vegetation;

? Develop agroforestry species mixes and intercropping plans appropriate to each site, based on best practices for sustainable land use;

? Selecting appropriate types of crops that can be integrated with the trees;

? Monitoring the progress of the design over time, contributing to M&E systems;

? Providing education and outreach to the communities on planting practices, maintenance and harvesting techniques and sustainable land use practices

Consultant - Social forestry

Background

The Consultant ? Social Forestry, will lead efforts to reach project targets of 100,000 ha of agroforestry on social forestry concessions on APL and Production Forest. The position will work closely with the Project Coordinator, Site Coordinators, and move between the sites as necessary to deploy their technical expertise on as as-needed basis. This consultancy must activate through the PPPPs with local communities to identify appropriate areas for social forestry, and be particularly attuned to the needs and longer-term tenure aspirations of adat communities. Social forestry may be appropriate for some communities, whereas others may prefer Hutan Adat. Flexibility to respond to local interests and concerns will be crucial, and FPIC must be followed carefully by this consultant.

Duties and Responsibilities

? Work to define how to define land demarcation, overcoming any land disputes and clarifying land management boundaries on 100,000 ha of potential social forestry areas, recognizing that many PIAPs are in Hutan Lindung, which will limit what activities can occur in these areas. Thus, the expert will need to assess on a site-by-site basis what potential exists to shift proposed social forestry onto APL or other areas, to support development of livelihood activities

? Consultation with local communities on their aspirations for social forestry, recognizing there may be complex tenure rights issues, overlapping claim areas, and consultation with local communities needs to be attuned to all local nuance in order to overcome potential conflicts (Output 1.2.1.1);

? Working with the DG of Social Forestry and Local Communities, and the Policy and Advocacy Expert (and Legal expert as necessary), identify what steps must be taken to effectively demarcate and acquire new concessions for communities (goal is > 100,000 ha of social forestry concessions, 35-year concession rights (Output 1.2.1.3)

? Develop business plans for social forestry areas, as they pertain to ICLP objectives, as per Output 1.2.1.4.

? Monitoring the progress of the design over time, contributing to M&E systems;

? Providing education and outreach to the communities on planting practices, maintenance and harvesting techniques and sustainable land use practices

Consultant - Biodiversity-friendly business models-food products and ecotourism

Background

The Consultant - Biodiversity-friendly business models for food products will work closely with project partners such as Javara, and co-finance partners such as Talasi and Kreologi, to plan and implement the community-based business models. The consultant will work with the Ministry of Tourism, Provincial Pariwisata and BAPPEDAs, Ministry of Cooperatives and SME?s, other relevant Provincial offices, and provincially-based development banks.

Duties and Responsibilities

? For each of the project sites, develop a comprehensive assessment of the current business environment for nature-based tourism and food products, and prioritization of business concepts for development (building on the ?NTFP and Livelihoods? report drafted during the PPG).

? Detail and document how the business ecosystem to facilitate the flow of inputs into the supply chain, logistics, and the general knowledge required to nurture and support businesses can be built and sustained;

? Build capacity of local communities to undertake the business models, working closely with partners;

? Work with the site coordinators in the project landscapes, coordinate biodiversity-friendly business model activities with private sector partners, sequencing and aligning activities and investments to realize the value-chain activities;

? Develop relevant training materials or/or tools that will support community-based businesses to improve their production and business management capabilities;

? Provide direct training, coaching and advice to community-based businesses, building their capacities and capabilities on business management

Consultant- International product market access

Background

This consultancy will support Javara in its access to international food retailers. Javara already has scoped the market potential in Canada, the United States and Europe. This position will assist Javara in its efforts to reach retailers in these markets, with the specific product lines developed in the project as biodiversity-friendly. Product branding and marketing will be accomplished by Javara. Connecting products to markets and buyers is crucial for community-based business ventures.

Duties and Responsibilities

? Support the market linkages necessary to get community-based biodiversity-friendly Wallacea-branded product into the international retailers who are willing to pay market premiums for healthy locally-produced foods that have a biodiversity story (Output 2.2.1.4)

? Secure off-take and purchase agreements, support local producers to meet those commitments.

Consultant- Financial and community cooperatives

Background

The Financial Specialist-Community Cooperatives will play a critical role in advising and building capacity and ability for community-based businesses to form and become operational. The goal is two-fold: for the community-based businesses to have functional and operational business plans, and secondly, to be transparent and accountable so that they are ?bankable? and ready to pass all due diligence tests put forth by local development banks and other lenders. The Financial Specialist will work closely with the private sector partners working to build the biodiversity-friendly business

models. overall performance will be jointly assessed by the PMU?s technical officer and partners (e.g. Javara and others depending on the site).

Duties and Responsibilities

? In coordination with the project staff, site coordinators, biodiversity-friendly business model consultant and private sector partners, work hand-in-hand with community-based business units (BUMDes or other) to develop financial planning for their enterprises;

? Build the capacity of community-based business units so they can plan out production, processing, transport and other costs in their start-up operations, and build transition towards viable business entities;

? Provide training and support to community-based businesses on topics such as developing a business plan/strategy, cost benefit analysis, financial planning, profit and loss analysis, etc.

? Provide community-based businesses with advice and training on relevant tools or software appropriate to their level of finances and needs with regards to business and financial management;

? Provide community-based businesses with the advice and support required to ensure they have the systems, processes and data in place that will enable them to access investment and working capital;

? Broker discussions and negotiations between financing facilities/financial service providers and community-based business units to develop and negotiate lending and investments;

? Support project partners to develop analyses and plans for bringing products to various markets, on as as-needed basis;

? Support private sector partners to access finance through Indonesia government programmes.

Consultants - Restoration

Background

The Land Restoration consultant(s) will work under the Programme Coordinator to achieve the land restoration targets of the project, which will be implemented in close collaboration with MoEF?s Directorate General of Watershed Control and Forest Rehabilitation (Ditjen PDASRH). This consultant will work with Provincial, kabupaten and kecamatan authorities, along with local communities, to implement the land restoration activities, drawing upon the many partners that will have roles in these activities. Thus consultancy will run for the entirety of the project, given the land restoration activities and goals in the project. Though the consultancy is covered through the GEF project, the majority of

financing and partnerships are through co-finance, thus laising with government and private sector partners and donors is essential to reach outcomes.

Duties and Responsibilities

? Under Output 2.2.1, and working closely with the Project Coordinator, develop detailed plans for and implementation of activities to restore 8,003 ha of degraded lands (deforested over the last 20 years) with government agencies, local partners, communities, CSOs and other technical experts as necessary. This includes the detailed planning on materials and hired labour costs for forest restoration under output 2.1.2.3;

? Working in partnership with DAS, coordinate activities to carry out habitat restoration (ie: nurseries and seedling, planting, watering, maintenance of tree planting sites, site preparation, weed management, longer term maintenance);

? Develop and coordinate local labour and volunteers for implementation activities;

? Monitor and control invasive plant species;

? Monitor and control livestock and grassland management activities to achieve land restoration outcomes (this may pertain to areas beyond the 8,003 targeted for restoration);

? Installation of signage, property clean-up, site inspections, and other similar stewardship activities as necessary;

? Data collection as part of ongoing ecological and M&E monitoring systems;

Consultant - Spatial Analysis

Background

The position will establish and maintain the spatial and digital systems for measuring progress against baselines, tracking impact in biodiversity conservation and habitat protection, and tracking net forest and biomass gains as part of overall GHG emission tracking for the project. The Spatial Analyst will also contribute as necessary to the landscape-level product certification standards, traceability, GI, or other relevant measure of sustainable production as part of the biodiversity-friendly business models. The position will be based in the PMU, but will travel to each of the sites as necessary to support activities and M&E at the site level.

Duties and Responsibilities:

? In collaboration with theProject Coordinator and MEL officer , develop the database management tools for the project, which include GIS, agri-market platforms, etc.;

? Support and co-develop the knowledge management and monitoring and evaluation tools for the project, in close coordination with the M&E Officer;

Required skills and expertise

? Master's Degree in geography or spatially-based science related field with >3 years of experience;

? Familiarity with well-established planning approaches (e.g., Open Standards, Conservation by Design) and using spatial planning tools or techniques (e.g., Marxan, Zonation, ILP);

? Familiarity with commonly used hydrological modeling software (e.g., SWAT, WEAP, HEC-RAS, MOD-FLOW), and spatial analysis of hydrographic data (river networks and watersheds);

? Experience with ArcGIS/ArcPro (and/or QGIS);

? Experience with programming languages for spatial data analysis is a plus (e.g., R, Python);

? Experience and proficiency in working with remotely-sensed data, and data products;

? Familiarity with integrating future climate scenarios and modeling data, and ecosystem service model data, into project work streams;

? Experience writing technical reports;

? Experience making maps that adhere to cartographic standards;

? Experience communicating effectively with technical and non-technical staff;

? Experience working and communicating with a wide range of people, from central government levels to communities

? Proficiency in Bahasa Indonesia and English

Consultant - Monitoring and Evaluation Officer

Background

The Monitoring and Evaluation (M&E) Officer is responsible for ensuring that the Monitoring, Evaluation and Learning (MEL) aspects of the project, including achieving all project-level and GEB

indicators and targets, are delivered as per the project workplan and M&E plan. The Officer will report to the Project Coordinator and Project Director and provide all the necessary data and information to report on project progress and learning, as well as providing support and capacity-building for project staff, partners and communities to reach targets. The Officer will build a sound, evidence-based MEL system integrated across the five sites that tracks the project?s performance and results over time. This includes designing M&E methodologies, working with the Spatial Analyst to quantify and spatially attribute data; training and backstopping technical staff, project partners, and field consultants on MEL methods and tools; ensuring proper output and outcome indicator data collection, and its quality control, analysis, and management; and reporting on key findings. The Officer will be assigned 50 percent (110 days/year) to the project and be based with the PMU.

Duties and Responsibilities:

? Develop and manage the project?s project-level M&E systems as per Output 4.1.1 in the project workplan, in coordination with the Project Coordinator and Spatial Analyst

? Organize and conduct M&E Inception Workshop to train project staff and partners on the project?s MEL system, (small group, following project inception workshop, 2 days) (Refer to Output 4.1.1.1 in ProDoc budget)

? Refinement of Project indicators for BD, LDN, poverty reduction and gender targets, establishment of baseline and measurement systems;

? Development of site-specific socio-economic surveys and baselines;

? Monitoring and reporting of project progress against annual workplan, in coordination with Project Coordinator;

? Develop kecamatan or kabupaten-based M&E indicators and measures relevant to the SDGs and other performance measures (GHG emissions, waste, etc.) to help inform broader measure of project impact (and work to integrate these into relevant government levels)

? Develop plan for how to link M&E to Community Biodiversity Monitoring Programmes (Refer to Outcome 2.1.1.);

? Design and provide virtual and in-person training and technical assistance to staff, project partners, consultants and others as necessary on MEL methods, tools and processes, ensuring MEL best practices;

? Organize and lead the project midterm and end-of-project M&E surveys, analysis and reporting;

? Implement and take responsibility for quality control procedures to ensure transparent, evidence-based MEL systems, based on reliable and timely field data collection, management and analysis, to generate and report high-quality output and outcome indicator values;

? Provide the Project Coordinator with quality and timely project performance technical reports, Midterm and End-of-project M&E reports, for the preparation of half yearly, PIR and Project Terminal reports, as per UNEP procedures.

? Collaborate with the Spatial Analyst to integrate digital data tools into the project?s M&E system

Required experience and competencies

? Bachelor?s Degree in international development, Agriculture, Forestry, Social Sciences, Economics, Natural Resources Management or related field;

? Minimum 4 years? experience in similar position, including 2 years conducting project MEL activities including leading the design, delivery and impact assessments of programs and projects, and/or related studies;

? Experience in software programmes, such as Microsoft Office (Excel, Access, PowerPoint, Publisher).

? Hands-on experience in co-designing and implementation of cost-effective performance-based monitoring systems, and the collection, management, analysis and reporting of high-quality output and outcome indicator data;

? Experience advising and supervising field teams or consultants in the collection of field data on social, environmental and/or agronomic and/or socioeconomic indicators for performance assessment, and in the use of associated field methods and tools (household surveys, farm monitoring, etc.)

? Excellent verbal and written communication skills; with required fluency in English and Bahasa Indonesia;

? Demonstrated ability to build capacity for project MEL among project staff, partners and key actors in local communities.

Consultant - Gender expert

Background

The gender specialist will bring tools and experience to enable the project to achieve its gender mainstreaming approach. The specialist will advise on how to appropriately reach women in each of the project landscapes, as per the Gender Engagement Plan developed during the PPG. The Gender Expert will assess the gender gaps in the landscapes and each of the project outcome thematic areas, and provide input into work plans and training methodologies and content in order to reach gender targets. The specialist will be a key resource for the PMU and all project staff and consultants to guide

and support them in implementing work plans and developing strategies to maximize participation of and benefits perceived by women in the project communities.

Duties and Responsibilities

? Facilitate meetings with women and women?s organizations/groups in each of the sites to further refine plans for gender inclusion that are culturally appropriate and feasible;

? Building upon the first point and the Gender Engagement Plan, create detailed workplans for the project to implement at each site to effectively engage women;

? Create baseline indicators to track performance on gender outcomes in project the landscapes;

? During implementation, review and refine project?s gender mainstreaming strategy against baseline study to check for gaps;

? Train project?s technical teams in gender equitable approaches and establish communications channel to provide continuous advice and support in resolving difficulties and issues that may occur;

? Monitor context and gender-targeted activities in project landscapes and seek opportunities for making linkages of project to other government and non-government initiatives;

? Deliver reports to Project Coordinator

Admin Assistant ? PMU

Background

The Admin assistant will report to the Project Coordinator and will be responsible for the administrative matters of the project.

Duties and Responsibilities (100 percent assigned to PMU)

? Develop, issue and administer contracts for project subcontracts and consultants contracted by PMU, under approval by Project Coordinator;

? Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PSC, project consultants and other PMU staff;

? Provide PMU-related administrative and logistical assistance;

? Liaise and follow up with the consultants and contractors for implementation of project activities in matters related to project funds and financial progress reports.

Project Support Officers * 5 (one at each site)

Background

The project support officers will report to the Site Coordinators and deliver the following tasks:

? Maintain project documentation at the site level

? Support organization of meetings, and workshops

? Support delivery of knowledge products

? Assist project M&E by the preparation of progress plans and reports;

? Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system

? Support IT needs of the office

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).

Responses to project reviews:

Reviewer	Comment	Response
GEF STAP Review ? Screening of 24 May 2022		
STAP Overall Assessment and Rating: Minor issues to be considered during project design: This is a clearly written and well-presented proposal focusing on an area with exceptional biodiversity. The proposal covered all the fundamental elements required at this stage of project development. Our assessment found a number of minor issues that should be adjusted in the next phase of project development (see recommendations) and identified a couple of areas of project design that could be improved (e.g. innovation), but otherwise we found this proposal to be consistent with the expected standards.		
In Part II on Project justification	STAP recommends that this section is revised to include references or data to substantiate the barriers as needed.	Noted, new references and data have been added to this section to substantiate the barriers identified.
Section on Risks	STAP would recommend that the risk scoring be split into two categories: ?likelihood and impact?	Agree. The Risk Rating has been adjusted to include the two categories??probability? and ?impact?

Minor issues to be considered during project design:	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to: (i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.	The PPG team is grateful for the opportunity to open a dialogue with STAP regarding the technical and/or scientific issues raised. Due to delays in the due diligence phase of contracting, there were delays in the PPG phase. Therefore, the PPG team was unable to open a dialogue with STAP due to time constraints, but if it is still feasible during GEF review of the ProDoc and before CEO endorsement, we welcome the opportunity. This response to reviews summarizes actions agreed and taken, and is submitted with the project brief for CEO endorsement.
GEF Council Members on the GEF Trust Fund, June 2022 Work Program		

Canada	1. Biodiversity conversation is a priority of this project. Habitat suitability of the project areas (Output 1.1.1) for certain species may (or may not) change under different climate change projections/scenarios. Analysis of habitat suitability or projected spatial distribution of the species can inform design and implementation of habitat restoration and specie protection. And, this analysis should form a crucial basis for the Integrated Conservation Landscape Plans. It is understood that climate change projections/scenarios potentially affecting the target provinces have been considered. Consider making it explicit that output analysis (1.1.2) includes the analysis of potential spatial distributions of endemic or threatened species (including economically important plant species of concern if possible) and therefore habitat suitability for the species in the region under different climate scenarios and time frames. If this has not been considered, including this analysis is welcome.	Agree this is important. An output has been added: ?1.1.1.2 Develop management plans, training and capacity building requirements to set targets for minimum ecological thresholds/ecosystem service functions ((e.g., habitat integrity, genetic and seed stocks of endemic species, HCV forest areas, climate change impacts and adaptation strategies, watershed functions, etc.). Determine habitat suitability for target species under different climate scenarios and time frames.?
	2. The project identifies deforestation or loss of forest cover as a major concern for the Wallacea region, and the proposal indicate that the project would result in a reduction of 20% in the current rate of deforestation. It?s important to consider adding a project outcome indicator that reflects the impacts of the project on reduced deforestation such as the net change of forest cover in the project landscapes - the sum of all forest losses (deforestation) and all forest gains (forest expansion) (reference: https://www.fao.org/forest-resources-assessment/2020/en/).	Agree. Output 1.1.1.1 has been adjusted to, ?Refine analysis and share the outcomes of driver assessment completed during PPG with stakeholders as part of PPPP development. Further develop a means to measure the impacts of the project on reduced deforestation such as the net change of forest cover in the project landscapes - the sum of all forest losses (deforestation) and all forest gains (forest expansion) (reference: https://www.fao.org/forest-resources-assessment/2020/en/) A related project outcome indicator is developed and will be measured over the project lifespan.
Germany	1. Generally, the description of the project proposal is at times hard to follow due to long, sequencing sentences. We would like to strongly suggest that language is simplified by using punctuation more clearly to clarify content of the proposal.	Have simplified and consolidated the description of the project proposal, and consolidated as much as possible into boxes.

	2. Regarding Output 1.1.1., it would be helpful to differentiate between a) identification of drivers, b) (participatory) identification and prioritization of measures to halt them and c) identification of optimized investment to finance these measures.	Agreed. This methodology has been applied in the Drivers of deforestation, forest degradation and land degradation report, completed as part of the PPG.
	3. Regarding the identification and implementation of sustainable sources of financing in Component 3, we would like to suggest that the assessment of market potential of the targeted commodities is carried out before the commodities are chosen. Please indicate from the start more clearly on what basis the commodities are chosen, including their market potential.	The main commodities with established domestic and international market potential were identified during the brief field visits. However, conditions and hence costs vary widely in each of the target regions and detailed market analysis will need to be undertaken in each location for each specific commodity or activity. This will include the potential for local value added, seasonality issues, required skills and training needs and associated costs, infrastructure requirements, availability and gaps, documented supply and logistical costs, specific market opportunities, mapping partners and/or off-takers, and financing requirements and sources. These assessments need to be completed in each location by experienced private sector partners and consultants who already know the market potential and the steps needed to get the product to market. This is part of phase 1 of project implementation.

	4. Secondly, regarding Component 3, we would like to seek clarification on the de-risking of the commercial investment. De-risking will play an essential role in securing investments and thus in securing the long-term viability of the project. The language here is however unclear (see comment regarding improving difficult language) and we would like to suggest that the project proponents clarify in more detail how the de- risking will be carried out (which funds are to be used).	The PPG has clarified the product lines and business models, and thus is clearer on the de-risking activities required: a) Bank NTT and Bank CIMB Niaga will provide low-interest rate loans to community-based businesses/farmer groups to motivate their production for the biodiversity-friendly businesses and to reduce their dependency on trader/collector sources of financing for inputs (which keep farmers in cycles of debt to traders who buy their products); b) farmer groups will be encouraged to participate in savings & loan cooperatives such as TLM and others to help finance microenterprises and smooth incomes to avoid debt to traders; c) investments by the Ministry of Cooperatives and SME?s in post-harvest storage and processing, so that community-based businesses/farmer groups produce regular, high-quality products ready for transport; c) Shared facilities and partnerships for training, product development, branding and capacity-building so that business models are ?investment ready??these now exist in Talasi?s investments in nut processing facilities in NTT, Jevara/Seniman Pangan?s food product manufacturing and training facilities in Labuanbajo and Maumere, Flores, NTT, EBF?s shared facility in Labuanbajo and PT Royal Coconut?s processing facilities in Sulawesi. Thus, we identify that the majority of ?de-risking? will come through public investment through the Ministry of Cooperatives and SMEs and the provincial development banks such as Bank NTT, Bank CIMB Niaga and others.

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$ 200,000**			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent To Date***	***Amount Committed***
Project Personnel	16,000	16,000	0
Consultants	117,000	117,000	0
Travel (International and Domestic)	27,000	27,000	0
Sub-Contract	15,000	15,000	0
Training/Consultation/baseline meetings	25,000	25,000	0
Total	200,000	200,000	0

The PPG Team was comprised of:

1. International PPG TL and GEF project design expert
2. Domestic Co-TL & Stakeholder engagement/Gender/Policy expert
3. Domestic Sustainable land Management and Biodiversity expert
4. International Agro-economist and Financing expert:

The PPG activities included:

1) A baseline analysis in the three targeted provinces of the existing institutional systems, data platforms and gaps, drivers and opportunities of land use change, key stakeholders, and capacity needed to implement planning and governance for integrated landscape conservation and reduced land degradation (detailed design of Outputs 1.1.1 to 1.2.1).
2) Analysis to lead to more detailed implementation plans for the ICLPs and FMUs in the targeted landscapes, to achieve the desired outcomes and targets (leading to detailed design of Outputs 2.1.1 to 2.2.1).
3) Baseline analysis and refinement of implementation plans for sustainable sources of financing for the implementation of integrated landscape conservation and management (detailed design of Outputs 3.1.1 and 4.1.1).
4) Definition of Project Strategy, including preparation of required documentation; a completed results framework; project monitoring plan, and safeguards and risk mitigation plans; GEF budget and co-financing plans; and implementation arrangements; and
5) Overall guidance and final documentation. The PPG process responded to requests made during the GEF Council meeting held in June 2022, STAP and GEFSEC reviews.

The PPG Team completed the following activities:

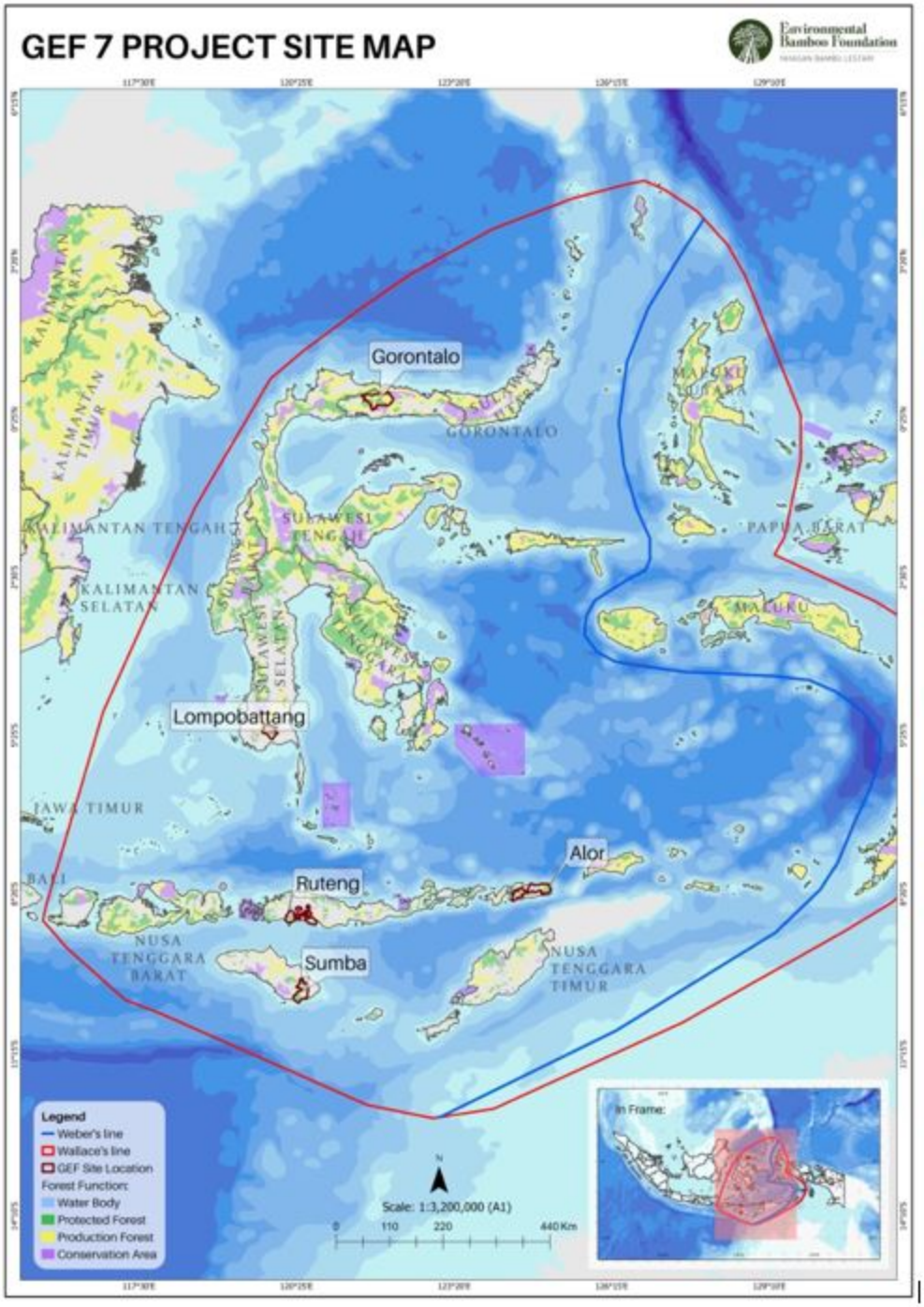
1.1 Assessed existing baseline programs, partnership, policies and regulations related to landscape conservation and restoration, economic development sectors, threatened habitats, vegetation and species, and their breeding, feeding and resting requirements, in all proposed project sites
1.2 Conducted consultations with Provincial and district level stakeholders and agencies, with view towards creating refined plans for how project will achieve its goals in the government Medium-term Development Planning process (key for alignment of budgeting and fiscal support) and Forest Management Unit co-management and planning. Resulted in more detailed project planning and clarity on priorities for implementation.

1.3 Began the process to conduct Free Prior and Informed Consent in all proposed project sites, and conduct additional consultations as necessary on social forestry, agroforestry, and other topics identified by indigenous peoples and local communities (IPLCs), to ensure IPLC input, and their concerns materially addressed in project development, and as basis for establishing People, Public, Private, Partnerships (PPPP) for the ICLPs, and to ensure environmental and social safeguard standards are met (1.1.4).
1.4 Initial analysis of drivers of land degradation and use change in proposed project sites, to assess project feasibility of addressing drivers through project interventions in both Key Biodiversity Areas (KBA)/Important Bird Areas (IBA), and adjacent landscapes, which guides final selection of sites for ICLP and project activities on ecological and spatial context of restoration and habitat protection, measures to address drivers, and optimized investments for resilient landscapes and communities.
1.5 Based on 1.2, 1.3 and 1.4, refined site selection was made, along with revised and expanded implementation plan (Relates to all Outputs under Component 1).
1.6 Developed refined project activity plan for Component 1, along with basic costing and assessment of incremental cost
2.1. Building on consultation process under Outcome 1, agree with national, provincial and district government, and IPLCs, on delineation of final proposed ICLP sites and overall intervention targets based on the approved PIF concept. Result was final site list and agreement by stakeholders on sites.
2.2. Conducted initial baseline assessment (e.g. spatial, biophysical, social, economic) and test/refine core indicators for meeting targets at each project site. Prepared updated georeferenced maps.
2.3. Based on refined site selection, conducted Gender and Environmental and Social Safeguards analysis required for PPG, including documenting the project baseline conditions and evaluating safeguard risks, developing related action plans or equivalents (based on concurrence with UNEP and GEF Secretariat guidelines)
2.4. Conducted pre-feasibility design of the three provinces and landscape-specific biodiversity-friendly community-based businesses, commodity types, agroforest systems etc and main business partners both for farmer support as well as uptake (financing under Comp 3).
2.1. Developed detailed plan for project activities, including for livelihood/value-chain activities and impact financing (Comp 3) which are mostly supported through co-financing and identified baseline programs, including costing, assessment of incremental cost component, project financial plan including co-finance, and delineation of responsibilities and coordination & project oversight mechanisms.
2.2. Conducted preliminary capacity needs assessment and develop plans for project partner organizations and agencies, for coordination and alignment in implementation (including supporting institutional arrangements).
3.1 Based on site selection and related commodities, conducted initial scoping analysis of private sector impact investment opportunities and targets (both commodity-based and environment benefits such as restoration/conservation), plus where feasible how private sector finance could be blended with public finance investment, to realise livelihood targets and enable biodiversity-friendly business ventures. Prepare detailed plan for project activities, along with delineation of responsibilities and coordination, and institutional arrangements that may be necessary to achieve outcomes. (Output 3.1.1)
3.2 Conducted a brief analysis on the potential to mainstream biodiversity and LDN lending criteria in village and development funds, Regional Incentive Fund, and regional credit unions, as a means to increase funding for the ICLP and to deliver more central government support to these types of activities across the country. Also conduct a brief analysis of how the project could assist to operationalize the ecological fiscal transfers (Provincial (TAPE), District (TAKE) and National (TANE) budgets). (Outputs 3.1.2 and 3.1.3)
3.3 Designed the full project M&E Plan, set baseline values, and system for regular data monitoring, analysis and reporting, including on GEF Core Indicators, PA METT, gender, disaggregated tracking of project progress, performance (Output 4.1.1)

ANNEX D: Project Map(s) and Coordinates

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

Please refer to section 7 1b above



GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. These IDs are available on the GeoNames? geographical database containing millions of placenames and allowing

to freely record new ones. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as OpenStreetMap or GeoNames use this format. Consider using a conversion tool as needed, such as:https://coordinates-converter.com Please see the Geocoding User Guide by clicking here.

Location Name	Latitude	Longitude	Geo Name ID	Location & Activity Description
Gorontalo: Popayato - Paguat	0.8	121.90		
Lompobattang	-5.33	119.93		
Todo Repok/Ruteng	-8.75	120.30		
Todo Repok/Ruteng	-8.65	120.56		
Alor	-8.39	124.46		
Alor	-8.22	124.7		
Sumba	-10.23	120.44		
Sumba	-9.98	120.49		

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.

N/A

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.

N/A

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).

N/A