

Annex 2d

Estimation of beneficiaries and improved area

to the GCF Funding Proposal

Land-based mitigation and adaptation through a Jurisdictional Approach in West-Kalimantan

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The assumptions and quantification of direct and indirect beneficiaries is included in the Table below.

On **direct beneficiaries**, we avoid double counting between individuals receiving support in adaptation to climate change (1.1.1), sustainable agriculture and supply chains (2.1.5) and Social Forestry (3.2.1) by working in different villages. The activities related to social forestry focus on the forest area, while the agricultural support focuses on non-forest land (APL). If there is an overlap in the area of direct and indirect beneficiaries, the direct beneficiaries are subtracted from the indirect beneficiaries. The targeted villages will be spread across the five regencies. The number of direct beneficiaries is estimated by multiplying the number of targeted villages with the average number of inhabitants per village in the respective regency (see table below).

Table 1: Regencies and average village population

District	# of villages	Unit	Total population (BPS, 2022)	Individuals per village (average)
REGENCY KAPUAS HULU	278	Desa	254.995	917
REGENCY KETAPANG	253	Desa	591.917	2.340
REGENCY KUBU RAYA	117	Desa	622.217	5.318
REGENCY SANGGAU	163	Desa	492.989	3.024
REGENCY SINTANG	390	Desa	426.416	1.093
TOTAL	1201		2.388.534	1.989

For **indirect beneficiaries**, the assumption is that the diverse adaptation related activities (e.g. Disaster Management Data Centres; early warning and adaptation monitoring systems; the development of Adaptation Action Plans; revision of land use plans, and support to FMUs to implement EbA measures beyond the scope of the five priority intervention regencies etc.) will provide indirect adaptation benefits to the population of WK. The total number of indirect beneficiaries is obtained by subtracting the total number of direct from the total number of beneficiaries.

Table 2: Direct and indirect beneficiaries

Core Indicator 2: Direct and indirect beneficiaries reached			
Intervention	Methodology and assumptions	Direct	Indirect
Activity 1.1.1: Inclusion of climate change adaptation in mid-term, spatial, and other regional development plans	<p>Direct beneficiaries: 50 villages will receive PROKLIM status and climate resilient land use plans are developed. Assumption: 10 villages per regency. Accurate gender disaggregated data on village level could not be obtained.</p> <p>Formula: 10 x average population per village of respective regency x 5 target regencies; see Table 1</p> <p>Indirect beneficiaries: Population of WK. Numbers are obtained from the national statistical office (BPS, 2022¹). The assumption is that the whole population of West Kalimantan will benefit from increased resilience through strengthening of the enabling conditions</p>	<p>126,928</p> <p>Women: 63,464 (approximately)</p> <p>Men: 63,464 (approximately)</p>	<p>5,541,376 (population of West Kalimantan, 2022)</p> <p>Women: 2,696,262</p> <p>Men: 2,845,114</p>

¹ BPS (2022). Provinsi Kalimantan Barat Dalam Angka 2023. <https://kalbar.bps.go.id/publication/2023/02/28/4f69da9b6275dd23c7edb485/provinsi-kalimantan-barat-dalam-angka-2023.html>

	and better coordination of stakeholders and interventions at multiple levels.		
Activity 1.2.1: Strengthening the regulatory framework and implementation of High Biodiversity and Carbon Areas (i.e., HCV, HCS) on non-state forests land.	<p>The project promotes the establishment of 100.000 ha of HCV/HCS areas, which will cover 20 villages in APL area across five regencies. This will also include trainings for several governmental and non-governmental stakeholders.</p> <p>Formula: 4x average population per village of respective regency x 5 target regencies; see Table 1</p>	50,772	
Activity 2.1.2: Implementing and upscaling the adoption of proven approaches for reducing emissions and enhancing the sustainability and climate resilience of smallholders in key commodity supply chains (including agroforestry)	<p>The project will implement measures to increase the resilience of 10,000 smallholder farmers, avoiding deforestation on 25,000 ha of smallholders' agricultural land (non-forest area, APL) in West Kalimantan. Measures comprise trainings in Good Agricultural Practices, certification, NTFP processing and marketing, and agroforestry. The 10.000 ha will be spread across all 5 regencies.</p> <p>Note:</p> <ul style="list-style-type: none"> • <i>Solidaridad is targeting 12,000 farmers but they expect a dropout rate of approx. 20%.</i> • <i>The number of beneficiaries (10,000) is multiplied by 5,5 (=average household size in West Kalimantan), as the activities will directly benefit the whole household. The assumption is that improved agricultural practices and certification will increase incomes, which will directly benefit the whole family.</i> 	<p>55,000</p> <p>(at least 18,000 women)</p>	
Activity 3.2.1: Advancing social forestry implementation including building awareness of local communities of climate risks and risk-reduction practices.	<p>We estimate that all inhabitants of the 150 targeted villages under this activity will directly benefit through comprehensive measures in social forestry (pre- and post-licences support), including through improved income, tenure security and land use planning.</p> <p>As these activities are implemented within the forest area, there will be no overlap with the agriculture related activities, which focus on the non-forest area (APL).</p> <p>Formula: 30 x average population per village of respective regency x 5 target regencies; see Table 1</p>	374,000	
3.2.1.2:	This activity will strengthen 200 social forestry business units (KUPS) across the five	8,000	

Develop and strengthen SF business units (KUPS) to establish, improve, and escalate market, supply chain, and value-added communities' products, including the creation of KUPS models and capital supports.	<p>regencies. The average size of one KUPS in the five regencies is 40 individuals.</p> <p>Note:</p> <ul style="list-style-type: none"> <i>This number is already included in the activity above. In the last row this is subtracted from the total.</i> <p>Formula: 200 x average size of one KUPS</p>		
Activity 2.1.5: NI-SCOPS: improving sustainable landscape management and smallholder palm oil market inclusion	<p>Trainings for smallholder farmers on i.e. GAP, CSA, bargaining power, financial literacy, diversification, and agroforestry business models.</p> <p>Registration of farmers' land titles</p> <p>Note:</p> <ul style="list-style-type: none"> <i>Additional beneficiaries in West Kalimantan</i> <i>Approximately 4000 households will benefit (*5.5 HH members)</i> 	22,000	
Sub-activity 3.2.1.7	<p>Social Forestry implementation in 17 villages in Sanggau through KfW</p> <p>Note:</p> <ul style="list-style-type: none"> <i>No overlap with other direct beneficiaries in the 17 target villages.</i> <i>Similar support measures and benefits as under 3.2.1</i> 	51,408	
TOTAL	<p>To avoid double counting,</p> <ul style="list-style-type: none"> <i>the number of beneficiaries on KUPS activities (3.2.1.2) was subtracted from the total direct beneficiaries.</i> <i>the direct beneficiaries are subtracted from the indirect beneficiaries.</i> 	<p>Direct beneficiaries:</p> <p>688,108 - 8,000</p> <p>= 680,108</p> <p>Women: 340,054 Men: 340,054 (approximately)</p>	<p>Indirect beneficiaries:</p> <p>5,541,376 - 680,107</p> <p>= 4,861,269</p> <p>Women: 2,696,262 - 340,053 = 2,356,209</p> <p>Men: 2,845,114 - 340,053 = 2,505,061</p>

Table 3: Estimation of area under improved management

Core Indicator 4: "Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice"		
Intervention	Methodology and assumptions	Area in ha
Sub-activity 1.1.2.3: Support creation of enabling conditions for mitigation activities	Under this activity the Education Forest of Tanjungpura University will be supported to become a model for REDD+ and FOLU Net Sink 2030 implementation as a centre of excellence of forest based mitigation and adaptation activities. It will serve the Internal Forestry Students' Association (IFSA) at Universitas Tanjungpura (UNTAN as model for learning and excellence centre for future forest managers to comprehensively design, implement, monitor, and report mitigation activities.	(19,000)
Sub-activity 2.1.2.1: Improved capacities to implement resilient and sustainable smallholder farming	Deforestation on 25,000 ha of agricultural and forest land (farmland of direct beneficiaries) will be avoided. This will be achieved through the development of business cases for sustainable farming, spatial analysis of agricultural production areas and forests, and capacity building.	25,000
Activity 2.1.5: NI-SCOPS Improving sustainable landscape management and smallholder palm oil market inclusion	Solidaridad expects 10,000 ha of smallholder farmers' oil-palm plantations to be under climate-adaptive practices Note: <ul style="list-style-type: none"> Assumption: each farmer manages around 2.5 ha 	10,000
Activity 3.1.1: Supporting Forest Management Units (FMU) in the development and implementation of climate-informed forest management plans, including fire management.	This activity aims to support FMU organizations through capacity building and the development and implementation of short- and long-term forest management plans. This will enable them to become more effective in the implementation of their duties in regard to their responsibilities such as forest management, social forestry, forest monitoring and law enforcement. All 17 FMUs of all regencies in West Kalimantan will receive capacity building and support in the development of management plans with 10 FMUs receiving more intensive support through field interventions Note: <ul style="list-style-type: none"> The whole area under all 17 FMUs in West Kalimantan is 6,712,565 ha The area under FMUs in the 5 target regencies is around 5 m ha 	6,712,565
Activity 3.2.1: Advancing social forestry implementation including building awareness of local communities of	Various activities related to pre- and post-license Social Forestry support (3.2.1.1. – 3.2.1.7) will result in 200,000 ha of new and strengthened community forests under social forestry license.	(200,000)

climate risks and risk-reduction practices.		
Sub.activity	<ul style="list-style-type: none"> Social Forestry support in Sanggau 	(16,403)
Total	Excluding: <ul style="list-style-type: none"> Activity 3.2.1: Social forestry (risk of overlap with FMU areas) Activity 2.1.4: GRASS (risk of overlap with Solidaridad areas) Sub-activity 1.1.2.3: Education Forest of Tanjungpura University Sub-activity 3.2.1.7: Social forestry in Sanggau (KfW) (risk of overlap with FMU) 	6,747,565

Table 4: Estimation of area under restoration or improved ecosystems

Supplementary Indicator 4.1: “Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems”		
Intervention	Methodology and assumptions	Area in ha
Sub-activity 1.2.1.1: Identify areas and develop management plans for High Biodiversity and Carbon Areas within non-state forest land across West Kalimantan Province.	<ul style="list-style-type: none"> Five Regencies Biodiversity Management Plan (RPKH Kabupaten) Five Bupati Decisions on the Regency Biodiversity Management Plan (RPKH Kabupaten) 	<i>not counted</i>
Sub-activity 1.2.1.2: Develop and strengthen regulations at provincial and Regency levels, to govern the protection and sustainable management of the High Biodiversity and Carbon Areas.	This activity will support the establishment of wildlife corridors and HCV/HCS (High Conservation Value / High Carbon Stock) areas on non-forest land (APL), which is covered by forest. This conservation status will protect these areas from deforestation and conversion to agricultural use.	100,000 ha
Activity 3.2.1: Advancing social forestry implementation	Forest and mangrove restoration will be achieved by conducting trainings and developing detailed-technical restoration plans that can be used to rehabilitate degraded peatland and mangrove ecosystems. The activity targets around 5,000 ha of peatland and 5,000 ha of mangroves to be restored during the project time.	10,000ha

including building awareness of local communities of climate risks and risk-reduction practices.		
Sub-activity 3.2.1.4:		
Forest restoration and rehabilitation of mangrove and peat forest ecosystems.		
Activity 1.1.2.3:	Support peat mapping for the actualization of the national peat inventory. This inventory will be used by KLHK to update the Peat Hydrological Unit map (scale 1: 50.000), which will be the legal basis for peat protection. All stakeholders on subnational level need to comply with peat protection according to this map.	426.037 ha
Support creation of enabling conditions for mitigation activities Peatland inventory		
Total	Excluding: <ul style="list-style-type: none"> • Sub-activity 1.2.1.1; • Activity 3.1.2 & sub-activity 3.2.1.7 	536,037ha