

RIMBA PAKAI KEMUKA ARI – FOREST FOR FUTURE



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Project Location	<i>Kapuas Hulu District, West Kalimantan, Indonesia</i>
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Project Lifetime	<i>01 June 2022 – 31 May 2047; 25-year lifetime</i>
GHG Accounting Period	<i>01 June 2022 – 31 May 2047; 25-year total period</i>
History of CCB Status	<i>Pre-Validation</i>
Gold Level Criteria	<i>None</i>
Expected Verification Schedule	<i>2 years after project start</i>

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1 SUMMARY OF PROJECT BENEFITS

This section highlights some of this project's important benefits. Section 1.1 (Unique Project Benefits) should be aligned with a project's causal model and is specific to this project. Section 1.2 (Standardized Benefit Metrics) is the same quantifiable information for all CCB projects. This section does not replace the development of a project-specific causal model or the monitoring and reporting of all associated project-specific impacts (positive and negative) that are described in Sections 2-5 of this document.

1.1 Unique Project Benefits

Outcome or Impact Estimated by the End of Project Lifetime	Section Reference
1) 270 hectares of forest ecosystems (forests, mangroves, peatlands, agroforestry) under restoration	2.1.8
2) 116,120 trees growing from active reforestation or assisted natural regeneration in hectares under restoration	2.1.8
3) 240 children with net improved education opportunities (girls/boys)	4.2.1

1.3 Standardized Benefit Metrics

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
GHG emission reductions or removals	Net estimated emission removals in the project area, measured against the without-project scenario	Not applicable	
	Net estimated emission reductions in the project area, measured against the without-project scenario	76,773 t CO ₂ e	3.2.2
Forest ¹ cover	For REDD ² projects: Estimated number of hectares of reduced forest loss in the project area measured against the without-project scenario	1,778 ha	3.2.1
	For ARR ³ projects: Estimated number of hectares of forest cover increased in the project area measured against the without-project scenario	270 ha	5.2.1
Improved land management	Number of hectares of existing production forest land in which IFM ⁴ practices are expected to occur as a result of project activities, measured against the without-project scenario	Not applicable	
	Number of hectares of non-forest land in which improved land management practices are expected to occur as a result of project activities, measured against the without-project scenario	Data not available	4.2.1
Training	Total number of community members who are expected to have improved skills and/or knowledge resulting from training provided as part of project activities	3,148 people	2.3.14
	Number of female community members who are expected to have improved skills and/or knowledge resulting from training as part of project activities	1,183 females	2.3.14

¹ Land with woody vegetation that meets an internationally accepted definition (e.g., UNFCCC, FAO or IPCC) of what constitutes a forest, which includes threshold parameters, such as minimum forest area, tree height and level of crown cover, and may include mature, secondary, degraded and wetland forests (*VCS Program Definitions*)

² Reduced emissions from deforestation and forest degradation (REDD) - Activities that reduce GHG emissions by slowing or stopping conversion of forests to non-forest land and/or reduce the degradation of forest land where forest biomass is lost (*VCS Program Definitions*)

³ Afforestation, reforestation and revegetation (ARR) - Activities that increase carbon stocks in woody biomass (and in some cases soils) by establishing, increasing and/or restoring vegetative cover through the planting, sowing and/or human-assisted natural regeneration of woody vegetation (*VCS Program Definitions*)

⁴ Improved forest management (IFM) - Activities that change forest management practices and increase carbon stock on forest lands managed for wood products such as saw timber, pulpwood and fuelwood (*VCS Program Definitions*)

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
Employment	Total number of people expected to be employed in project activities, ⁵ expressed as number of full-time employees ⁶	64 people	2.3.15
	Number of women expected to be employed as a result of project activities, expressed as number of full-time employees	20 women	2.3.15
Livelihoods	Total number of people expected to have improved livelihoods ⁷ or income generated as a result of project activities	455 people	4.2.1
	Number of women expected to have improved livelihoods or income generated as a result of project activities	138 women	4.2.1
Health	Total number of people for whom health services are expected to improve as a result of project activities, measured against the without-project scenario	Not applicable	
	Number of women for whom health services are expected to improve as a result of project activities, measured against the without-project scenario	Not applicable	
Education	Total number of people for whom access to, or quality of, education is expected to improve as result of project activities, measured against the without-project scenario	240 people	4.2.1
	Number of women and girls for whom access to, or quality of, education is expected to improve as result of project activities, measured against the without-project scenario	Data not available	4.2.1

⁵ Employed in project activities means people directly working on project activities in return for compensation (financial or otherwise), including employees, contracted workers, sub-contracted workers and community members that are paid to carry out project-related work.

⁶ Full time equivalency is calculated as the total number of hours worked (by full-time, part-time, temporary and/or seasonal staff) divided by the average number of hours worked in full-time jobs within the country, region or economic territory (adapted from the UN System of National Accounts (1993) paragraphs 17.14[15.102];[17.28])

⁷ Livelihoods are the capabilities, assets (including material and social resources) and activities required for a means of living (Krantz, Lasse, 2001. *The Sustainable Livelihood Approach to Poverty Reduction*. SIDA). Livelihood benefits may include benefits reported in the Employment metrics of this table.

Category	Metric	Estimated by the End of Project Lifetime	Section Reference
Water	Total number of people who are expected to experience increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	Data not available	4.2.4
	Number of women who are expected to experience increased water quality and/or improved access to drinking water as a result of project activities, measured against the without-project scenario	Data not available	4.2.4
Well-being	Total number of community members whose well-being ⁸ is expected to improve as a result of project activities	3,996 people	4.2.1
	Number of women whose well-being is expected to improve as a result of project activities	1,966 women	4.2.1
Biodiversity conservation	Expected change in the number of hectares managed significantly better by the project for biodiversity conservation, ⁹ measured against the without-project scenario	Data not available ¹⁰	5.2.3
	Expected number of globally Critically Endangered or Endangered species ¹¹ benefiting from reduced threats as a result of project activities, ¹² measured against the without-project scenario	8 Critically Endangered and 34 Endangered species	5.1.2

2 GENERAL

PRCF Indonesia has been working with the village communities in five initial project areas (see Table 1) for more than five years, and on development of a CCB project since April 2021. The design of the project and production of this Project Description has been a collaborative effort between PRCF Indonesia, the Village Forest Management Institutions (LPHDs) in each of the initial project villages, and the broader village communities. Project development has followed a participatory design process facilitated by The

⁸ Well-being is people's experience of the quality of their lives. Well-being benefits may include benefits reported in other metrics of this table (e.g. Training, Employment, Livelihoods, Health, Education and Water), and may also include other benefits such as strengthened legal rights to resources, increased food security, conservation of access to areas of cultural significance, etc

⁹ Managed for biodiversity conservation in this context means areas where specific management measures are being implemented as a part of project activities with an objective of enhancing biodiversity conservation, e.g. enhancing the status of endangered species

¹⁰ There is a total of 7,483 ha of forest in the initial project areas where biodiversity will benefit from project activities to support strong, village-based forest management institutions. Areas where biodiversity conservation activities will be implemented may be set out in the forest management plans of each village forest management institution.

¹¹ Per IUCN's Red List of Threatened Species

¹² In the absence of direct population or occupancy measures, measurement of reduced threats may be used as evidence of benefit

Landscapes and Livelihoods Group (TLLG), who have worked closely with PRCF Indonesia throughout the 27-month project development process, which included the following activities in each village:

- Initial discussion of the potential project with the village communities, and agreement to explore this further with the support of PRCF Indonesia¹³
- Information gathering to describe the local context, identify local drivers of deforestation and forest degradation, and suggest activities that could be used to address them, following participatory approaches,¹⁴ including:
 - Stakeholder Analysis
 - Problem Tree Analysis
 - Threat Assessment
 - Barrier Analysis
 - Livelihood and Socioeconomic Surveys
 - Participatory Land Use Mapping
 - Participatory Biodiversity Assessment
- Development of an initial project concept, and agreement to pursue development of a CCB project with the village communities¹⁵
- Participatory project design activities in collaboration with the village communities,¹⁶ including:
 - Stakeholder Engagement Plan Development
 - Theory of Change Development
 - Environmental and Social Impact Assessment
 - Activity Plan Development
- Sharing final version of this Project Description, and a summary of key information with the village communities and ensuring all details are fully explained before seeking consent to implement the project.¹⁷

The participatory project development approach was designed to ensure that the village communities that hold the management rights to the Social Forestry areas were fully involved in the scoping and design of the project and have a full understanding of their roles and responsibilities in the project. This is expected to help ensure that the project benefits the communities and will receive their long-term support.

¹³ Concept Phase FPIC Agreement

¹⁴ Damayanti, E., Huda, I., Hayat, A., Purwanto, Y., Supardi, S.I., Yanda, A.E., Hadinata, S.Y., Wardana, H.W., Hisbullah, Y. (2021) [Phase 1] Fieldwork Technical Report: Climate, community, and biodiversity baseline study for social forestry project in Indonesia. The Landscapes and Livelihoods Group and PRCF Indonesia.

¹⁵ Design Phase FPIC Agreement

¹⁶ Damayanti, E., Wachyuni, M., Leonald, L., and Berry, N. 2023. [Phase 2] Fieldwork Implementation Report. The Landscapes and Livelihoods Group, Edinburgh, UK.

¹⁷ Implementation Phase FPIC Agreement

2.1 Project Goals, Design and Long-Term Viability

2.1.1 Project Proponent (G1.1)

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2.1.2 Project Objectives (G1.2)

To achieve the project's aim to protect and restore forests within designated Social Forestry areas in Kapuas Hulu district, for which local communities have secured management rights for a period of 35-years; to prevent greenhouse gas emissions, increase forest carbon stocks, conserve biodiversity, maintain and enhance ecosystem services, and improve local livelihoods; the project has the following climate, community and biodiversity objectives:

The project's **Climate Objective** is to reduce GHG emissions from deforestation and forest degradation by protecting and conserving Social Forestry areas in Kapuas Hulu district.

Its **Community Objective** is to improve community prosperity in villages in Kapuas Hulu that have secured ownership or management rights through Indonesia's Social Forestry program by improving forest-based economic values and sustainable agriculture practices.

The project's **Biodiversity Objective** is to protect and conserve biodiversity within Social Forestry areas in Kapuas Hulu district and to maintain and enhance habitat extent and quality for threatened species.

2.1.3 Physical Parameters (G1.3)

The project zone is defined by the boundaries of Kapuas Hulu District in West Kalimantan. Project areas that meet the project's applicability criteria will be added to the project as the project expands in line with available finance and as project development activities are completed. Potential project areas include Village Forests (*Hutan Desa*) and Customary Forests (*Hutan Adat*) in Kapuas Hulu District.

The first five sites included in the project are listed in Table 1.

Table 1 Initial project areas

Village Forest	Code	Area (ha)	Management Rights Obtained	Village Name	Number of sub-villages (Dusun)	Number of Households
Bukit Belang	HDBB	2,520 ¹⁸	2015	Tanjung	3	251 ¹⁹
Nyuai Peningun	HDNP	4,160 ²⁰	2017	Nanga Jemah	3	264 ²¹
Batang Tau	HDBT	335 ²²	2017	Sri Wangi	2	180 ²¹
Punjung Batara	HDPB	1,995 ²³	2015	Nanga Betung	3	225 ²¹
Bumi Lestari	HDBL	1,285 ²⁴	2015	Penepian Raya	2	218 ²⁵
Total:		10,295				

Topography

The topography of Kapuas Hulu is characterized by a large number of mountains and hills, with the highest point being Mount Keminting at 2,188 meters above sea level. The region also has a number of rivers, the largest of which is the Kapuas River. The topography of Kapuas Hulu is divided into three main areas: the Western Highlands with peaks reaching over 2,000; the Central Plateau, a lower-lying area, with an average elevation of around 500 meters; and the Eastern Lowlands, with an average elevation of around 100 meters.

Soil

The dominant soil type in Kapuas Hulu District varies depending on the location. In the lowlands, Latos and Podzols soils are the most common, while in the highlands, Aluvial and Gley soils are more common.

Climate

The project zone has a tropical rainforest climate (Köppen and Geiger classification Af), with an average annual temperate of 26.1 °C and annual rainfall of 2896 mm (see Figure 1).

¹⁸ West Kalimantan Governor's Decree SK.401/EkBang/2015

¹⁹ Mentebah District in 2021 Figures, Central Bureau of Statistics Kapuas Hulu Regency (Kecamatan Mentebah Dalam Angka 2021, Badan Pusat Statistik Kabupaten Kapuas Hulu)

²⁰ Ministry of Environment and Forestry Decree 687 of 2017 (Social Forestry) (SK. 687/Menlhk-PSKL/PKPS/PSL.0/2/2017)

²¹ Boyan Tanjung District in 2021 Figures, Central Bureau of Statistics Kapuas Hulu Regency (Kecamatan Boyan Tanjung Dalam Angka 2021, Badan Pusat Statistik Kabupaten Kapuas Hulu)

²² Ministry of Environment and Forestry Decree 686 of 2017 (Social Forestry) (SK. 686/Menlhk-PSKL/PKPS/PSL.0/2/2017)

²³ West Kalimantan Governor's Decree SK.399/EkBang/2015

²⁴ West Kalimantan Governor's Decree SK. 400/EkBang/2015

²⁵ Jongkong District in 2021 Figures, Kecamatan Jongkong Dalam Angka 2021 Bureau of Statistics Kapuas Hulu Regency (Kecamatan Jongkong Dalam Angka 2021, Badan Pusat Statistik Kabupaten Kapuas Hulu)

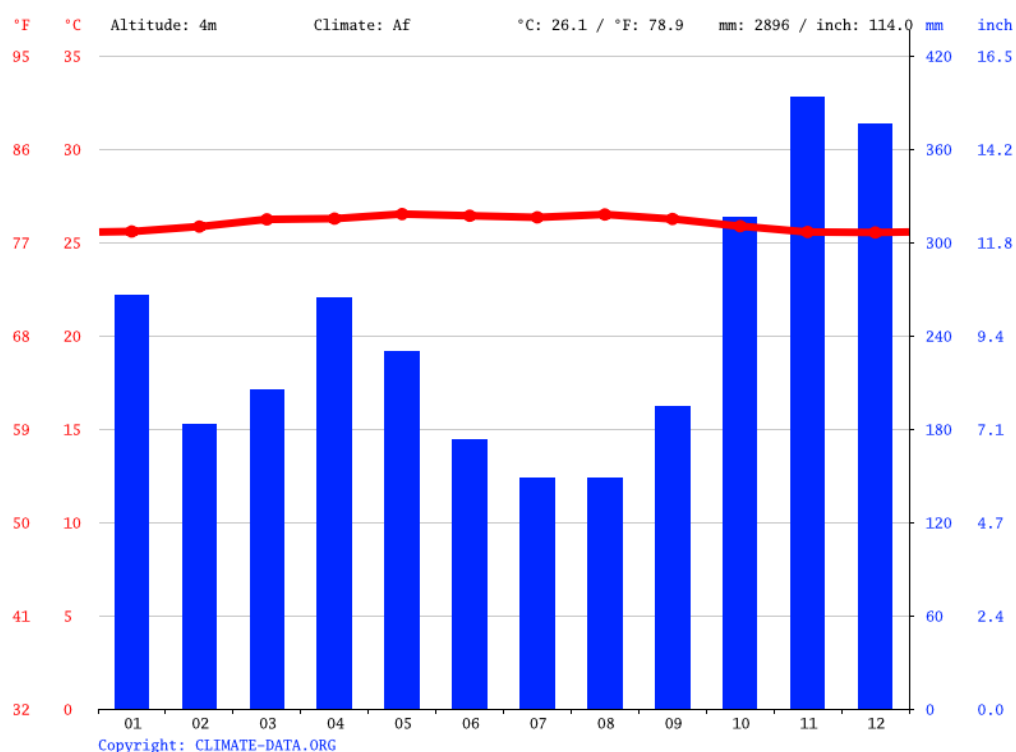


Figure 1 Average monthly temperature and rainfall in West Kalimantan

Vegetation

Kapuas Hulu District covers a total area of 29,842 km², 75 percent of which is forested. Table 2 shows the forest types present in Kapuas Hulu district. Land cover and land use in the project zone are described in Figure 2 and Figure 3. Land use and land cover designations of the initial project areas are shown in Table 3.

Table 2 Forest types and elevation range of forested areas in Kapuas Hulu District. Source: Ministry of Environment and Forestry (2019)

Forest Type	Elevation Class	Forested Area (ha)
Primary forest	Lowland (0-300 masl)	203,318
	Hill and sub-montane (300-900 masl)	889,929
	Lower montane (900-1500 masl)	220,447
	Upper montane (>1500 masl)	9,170
Secondary forest	Lowland (0-300 masl)	322,930
	Hill and sub-montane (300-900 masl)	164,810
	Lower montane (900-1500 masl)	15,917
	Upper montane (>1500 masl)	3
Primary swamp forest	Lowland (0-300 masl)	6,599
Secondary swamp forest	Lowland (0-300 masl)	399,178
Total		2,232,301

Table 3 Land use and land cover designations of the initial project areas. Source: Ministry of Environment and Forestry (2020)

Forest type/Legal designation	Elevation Classes	Forested area (ha)				
		HD Bukit Belang	HD Nyuai Peningun	HD Batang Tau	HD Punjung Batara	HD Bumi Lestari
Protection Forest (HL)						
Secondary forest	Lowland	1,075	2,283	11		
	Hill and sub-montane	787	1,358	25		
	Lower montane	4				
Secondary swamp forest	Lowland					217
Production Forest (HP)						
Secondary forest	Lowland		1	5	1,636	
	Hill and sub-montane		67		13	
Total		1,865	3,709	41	1,650	217

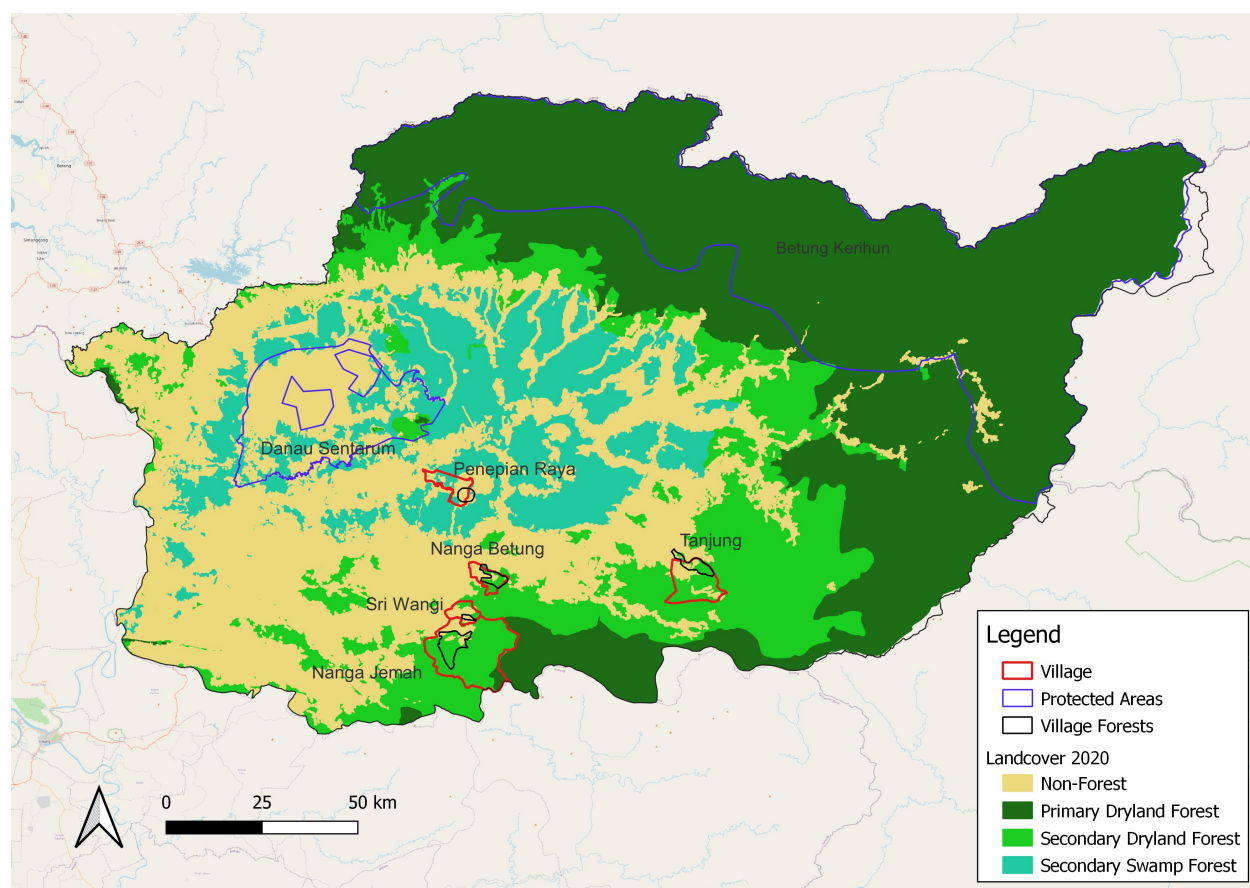


Figure 2 Land cover in Kapuas Hulu District. Source: Ministry of Environment and Forestry (2020).

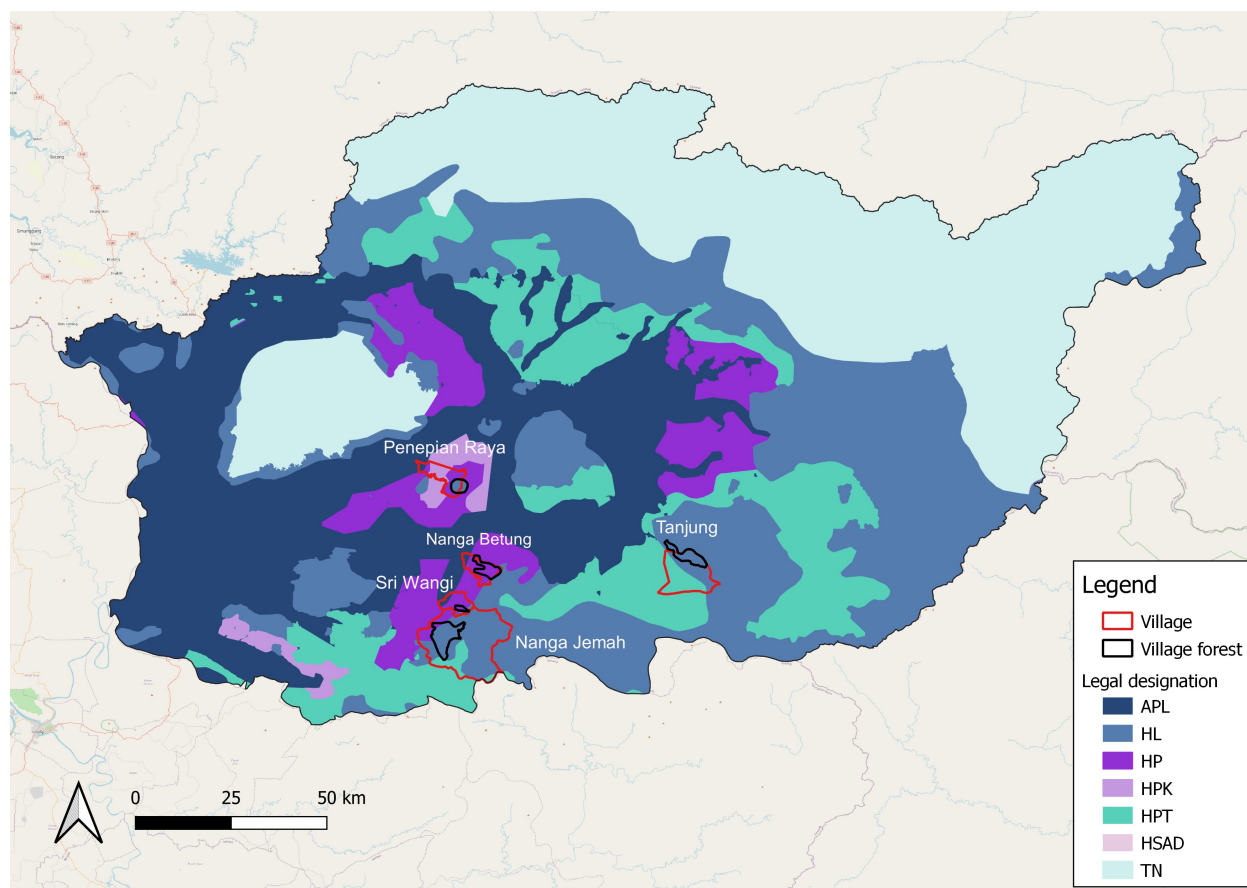


Figure 3 Land use in Kapuas Hulu District. Source: Ministry of Environment and Forestry (2018).

Forest types present in the initial project areas include mixed-dry lowland dipterocarp forest, riparian forest, hilly lowland forest, and heath forest. Within these forest types, the dominant plant species found are from the family of Dipterocarpaceae, such as *Shorea parvistipulata* F.Heim, *Shorea palembanica* Miq., *Dipterocarpus borneensis* Slooten, *Hopea dryobalanoides* Miq, and *Shorea parvifolia* Dyer. Dominant species in the old secondary forests include *Dacryodes rugosa* (Bl.) H.J. Lam, *Elateriospermum tapos* Blume, *Xanthophyllum neglectum* Meijden, *Koompassia excelsa* (Becc.) Taub., *Scaphium macropodum* (Miq.) Beumée ex K.Heyne., *Dacryodes rostrata* (Blume) H.J.Lam, *Hopea vesquei* F.Heim, *Ochanostachys amentacea* Mast., and *Cinnamomum rhynchophyllum* Miq. Pioneer and fast-growing species are found in some areas along the village roads or ex-farm and young secondary growth, such as *Nauclea officinalis* (Pierre ex Pit.) Merr. & Chun, *Vitex pinnata* L., *Macaranga* spp., *Callicarpa pentandra* Roxb., *Pterospermum javanicum* Jungh., *Parkia speciosa* Hassk., *Ficus uncinata* (King) Becc., *Melastoma malabathricum* L., and *Vernonia arborea* Buch.-Ham. Riparian species include *Dipterocarpus oblongifolius* Blume, *Dracontomelon dao* (Blanco) Merr. & Rolfe, *Artocarpus* spp. and species from the Araliaceae family.²⁶

²⁶ PRCF Indonesia (2015) High Conservation Value Area (HCVF) Assessment Report in Tanjung, Sriwangi, Nanga Jemah dan Nanga Yen Village Forests, Kapuas Hulu District. Pontianak: TFCA Kalimantan and People's Resources and Conservation Foundation – Indonesia. In the Indonesian Language.

2.1.4 Social Parameters (G1.3)

Main settlements

Kapuas Hulu District is composed of 23 sub-districts and 282 villages. In 2022, the total population of the district was 266,651 (136,680 male and 129,971 female; see Table 4).²⁷

Table 4 Kapuas Hulu population 2022

Sub-District	Number of Villages	Population		
		Male	Female	Total
Putussibau Utara	19	14,277	13,830	28,107
Bika	8	2,541	2,396	4,937
Embaloh Hilir	9	3,117	2,968	6,085
Embaloh Hulu	10	2,780	2,637	5,417
Bunut Hilir	11	4,535	4,390	8,925
Bunut Hulu	15	7,957	7,588	15,545
Jongkong	14	5,770	5,661	11,431
Hulu Gurung	15	7,295	7,007	14,302
Selimbau	17	7,249	6,987	14,236
Semitau	12	5,164	4,746	9,910
Seberuang	15	6,104	5,666	11,770
Batang Lupar	10	2,811	2,764	5,575
Empanang	6	1,993	1,839	3,832
Badau	9	3,662	3,540	7,202
Silat Hilir	13	10,924	10,149	21,073
Silat Hulu	14	6,251	5,766	12,017
Putussibau Selatan	16	12,805	12,368	25,173
Kalis	17	7,377	6,936	14,313
Boyan Tanjung	16	6,987	6,555	13,542
Mentebah	8	5,853	5,433	11,286
Pengkadan	11	4,953	4,744	9,697
Suhaid	11	5,045	4,872	9,917
Puring Kencana	6	1,230	1,129	2,359
Total	282	136,680	129,971	266,651

Land use and economic activities

Land use and economic activities in the initial project villages were described by members of the village communities in focus group discussions, key informant interviews and participatory mapping activities facilitated by PRCF Indonesia and TLLG.¹⁴ The traditional livelihoods of most villages in Kapuas Hulu are hunting or farming, which have generally been conserved until recent times. Gold mining also represents a source of income for some villages (including Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah and

²⁷ Population and Civil Registration Office of Kapuas Hulu District (Dinas Kependudukan dan Pencatatan Sipil Kabupaten Kapuas Hulu – DISDUKCAPIL) <https://disdukcapii.kapuashulukab.go.id/jumlah-penduduk/>

Penepian Raya). The main livelihoods being mainly these three activities in the past, most villages have experienced significant diversification in their livelihood activities over the past few decades. Certain villages, such as Nanga Betung and Sri Wangi villages have expanded into repair shops, trading, and online businesses. In the Nanga Jemah village, for example, farming represented the principal livelihood for most of the community at one time. Currently, only 30% of the population practice farming, with the other 70% diversifying their activities to include rubber and fish farming, amongst other practices such as logging and gold mining. Generally, livelihoods in these areas are centered around the natural resources of the area, which usually include forests, fields, and rivers. In recent decades, many of the villages have planted rubber farms and *kratom/purik* (a medicinal plant that currently has high export value)²⁸ farms, with rubber farming being an important part of Nanga Jemah, Nanga Betung and Sri Wangi village livelihoods. Since the fall of rubber prices in recent years, communities have shifted to *kratom/purik* cultivation, which currently has a favorable export value. Penepian Raya village is the only village of the initial project areas where fishing constitutes the main livelihood. Here, 70% of the working population are involved in fishing, with the remaining 30% are usually involved in rice farming, and also *kratom/purik* cultivation.

Socio-cultural information

Socio-cultural characteristics of the initial project villages were described using published information,²⁹ and information gathered by PRCF Indonesia and TLLG.¹⁴ A summary of socio-cultural information for the initial project villages is provided in Table 5.

Table 5 Summary of Community Diversity from five villages in Kapuas Hulu District. Source: Damayanti et al. (2021)¹⁴

Tanjung

Ethnicity	Dayak Suruk, Dayak Ut Danum, Dayak Kanayatn, Dayak Kantu, Dayak Kalis, Iban, Tionghwa (Chinese))
Gender	500 males, 471 females Both men and women from different ethnicities, age, religion, and socio-economic status who are eligible and willing to become members are represented in various formal and informal community institutions in the village. These include the Village Consultative Body (BPD), Community Empowerment Institution (LPM), Village Forest Management Institution (LPMD), Youth Group (Karang Taruna), and Family Planning Village Program (Kampung KB). The Village Government is only staffed by men, however. Some women and youth applied for positions, but did not pass the recruitment process.

²⁸ Kratom (*Mitragyna speciosa*), commonly known as purik in Kapuas Hulu, an herbal leaf from a tree of the Rubiaceae family, is a tropical evergreen tree in the coffee family native to Southeast Asia. It is indigenous to Thailand, Indonesia, Malaysia, Myanmar, and Papua New Guinea, where it has been used in herbal medicine since at least the 19th century. It has also historically been used for chewing, smoking, and tea. Kratom has opioid properties and some stimulant-like effects. As of 2013, kratom was listed by ASEAN in its annex of products that cannot be included in traditional medicines and health supplements that are traded across ASEAN nations. Kratom is scheduled to become an illegal substance in Indonesia in 2024 once new regulations from the Indonesian National Narcotics Agency (BNN) go into effect.

²⁹ Ministry of Home Affairs, 2020. Basic Village/Subdistrict Data. Directorate General of Village Government Development, Ministry of Home Affairs of the Republic of Indonesia Prodeskel Kemendagri. 2020. Data Pokok Desa/Kelurahan. Direktorat Jenderal Bina Pemerintahan Desa, Kementerian Dalam Negeri Republik Indonesia.

	The same opportunities are given to both genders in other formal or informal groups or institutions. However, there are some institutions where only males or females are represented; for example, women in the Family Well-being Empowerment/ Women's Group (PKK) and Integrated Health Service Posts (Posyandu), because children, healthcare and families are part of women's traditional roles; and men in the Village Customary Institution. The community recognizes that women should be involved in the Village Customary Institution. Religious groups were established based on the needs in the village, so some have mixed representation of gender, such as the Church Councils, whereas there are only women in the Catholic Women Group (WK) and Protestant Faith Group (WAPIN), only men in PERKABAK, and only youth, both boys and girls, in OMK and PPHG.
Age	5-6 years old (kindergarten students): 21 persons; 7-12 years old (elementary school students): 196 persons; remaining 754 persons are at age range 0-5 years old and above 12 years old. ²⁹
Well-being	The results of the participatory well-being assessment suggest that of 260 households in Tanjung village, 1% are capable, 35% are medium, 62% are less capable, and 2% are not capable (see Error! Not a valid result for table.).
Land ownership and use	Most households (161) own less than 1 ha of land, 5 households own no land, 91 households own 1 to 2 ha of land, and 3 households have more than 4 ha of land. Farmland is used for rubber, coffee, and <i>purik</i> cultivation (see Error! Not a valid result for table.).

Nanga Jemah

Ethnicity	Melayu, Dayak, Jawa, Tionghwa, Kupang		
Age/Gender	Age (years)	Male	Female
	0 – 6	95	39
	7 – 12	44	49
	13 – 18	21	40
	19 – 25	82	69
	26 – 40	119	116
	41 – 55	75	65
	56 – 65	24	21
	65 – 75	11	12
	> 75	0	0
	Total	471	411
Both men and women from different ethnicities, age, religion, and socio-economic status who are eligible and willing to become members are represented in various formal and informal community institutions in the village. These include the Village Government, Village Consultative Body (BPD),			

	Community Empowerment Institution (LPM), Village Forest Management Institution (LPHD), the Village Customary Institution, Farmers' Groups Association (Gapoktan), Village-owned Business Enterprise (BUMDes), Pre-School Education (PAUD), and Youth Group (Karang Taruna). The same opportunities are given to both genders in other formal or informal groups or institutions; however, these intuitions are currently only represented by a single gender, i.e. women in the Family Well-being Empowerment/ Women's Group (PKK) and Integrated Health Service Posts (Posyandu), because health care and families are part of women's traditional roles. Religious groups were established based on needs. Both men and women participate in the Mosque Committee and Al-Qur'an Education for Children, whereas only women are members of the Majlis Taklim (Al-Qur'an reading group).
Well-being	The results of the participatory well-being assessment suggest that of 272 households, 1% are very capable, 7% are capable, 47% are medium, 33% are less capable, and 11% are not capable (see Table 23).
Land ownership and use	Most households (218) own between 1 ha and 2 ha of land, 5 households own no land, and 24 households have more than 5 ha of land. Land is used for rubber farms and 'pemudak'/fallow farmland.
Household income	The main sources of household income include rubber farms, fish farming, and livestock and swiftlet breeding.
Healthcare	Most households go to Puskesmas or the public hospital in the district for health treatment.

Sri Wangi

Ethnicity	Melayu, Dayak, Jawa, Cina		
Age/Gender	Age (years)	Male	Female
	0 – 6	39	50
	7 – 12	53	45
	13 – 18	81	87
	19 – 25	46	53
	26 – 40	73	84
	41 – 55	49	46
	56 – 65	19	20
	65 – 75	10	9
	> 75	1	2
	Total	371	396
Both men and women from different ethnicities, age, religion, and socio-economic status who are eligible and willing to become members are represented in various formal and informal community institutions in the village,			

	including the Village Government, Village Consultative Body (BPD), Village Forest Management Institution (LPHD), Farmers' Groups Association (Gapoktan), Village-owned Business Enterprise (BUMDes), and Youth Group (Karang Taruna). In the case of LPHD Batang Tau, more women are involved in the core LPHD committee, with the LPHD chairperson being a woman. Other strategic positions are also held by women. The same opportunities are given to both genders in other formal or informal groups or institutions. However, there are some institutions where only males or females are represented; for example, women in the Family Well-being Empowerment/ Women's Group (PKK), Integrated Health Service Posts (Posyandu), and Pre-School Education (PAUD), because children, health care and families are part of women's traditional roles; and men in the Village Customary Institution and Community Empowerment Institution (LPM). While women are given opportunity to participate in the latter two institutions, none have applied to be members. Religious groups were established based on needs, meaning there is no restriction on the participation of men or women. However, in Sri Wangi, only women are interested in being active in religious group. These groups include Al-Qur'an Education for Children, and Majlis Taklim (Al-Qur'an reading group).
Well-being	The results of the participatory well-being assessment suggest that of 184 households, 1% are very capable, 4% are capable, 41% are medium, 41% are less capable, and 14% are not capable (see Table 23).
Land ownership and use	Most households (150) own between 1 ha and 2 ha of land, 25 households own no land, and 9 households have more than 5 ha of land. Land is used for rubber farms and 'pemudak'/fallow farmland.
Household income	Main sources of household income include rubber farms, fish farming, and livestock and swiftlet breeding.

Nanga Betung

Ethnicity	Melayu, Bugis, Dayak, Sasak		
Age/Gender	Age (years)	Male	Female
	0 – 6	51	34
	7 – 12	48	40
	13 – 18	41	38
	19 – 25	67	47
	26 – 40	86	88
	41 – 55	81	55
	56 – 65	20	22
	65 – 75	5	10
	> 75	0	0
	Total	399	334

	Both men and women from different ethnicities, age, religion, and socio-economic status who are eligible and willing to become members are represented in various formal and informal community institutions in the village, including the Village Government, Village Consultative Body (BPD), Community Empowerment Institution (LPM), Village Forest Management Institution (LPHD), Farmers' Groups Association (Gapoktan), and Village-owned Business Enterprise (BUMDes). The same opportunities are given to both genders in other formal or informal groups or institutions. However, some institutions are only represented by one gender; for example, women in the Family Well-being Empowerment/ Women's Group (PKK), Integrated Health Service Posts (Posyandu), and Pre-School Education (PAUD), because children, health care and families are part of women's traditional roles, and men in the Village Customary Institution. In the case of the Village Customary Institution, the tasks given to the members are considered beyond women's capacities, including capacity for decision-making. Religious groups were established based on the needs, so the groups can have mixed representation of men and women, such as the Mosque Committee and Al-Qur'an Education for Children, or only women members, such as in the Majlis Taklim (Al-Qur'an reading group).
Well-being	The results of the participatory well-being assessment suggest that of 225 households, 0 are very capable, 16% are capable, 32% are medium, 31% are less capable, and 21% are not capable (see Table 23).
Land ownership and use	73 households own between 2 ha and 9 ha of land, 69 households own less than 2 ha of land, 48 households own no land, and 35 households have more than 10 ha of land. Land is used for rubber farms and 'pemudak'/fallow farmland.
Household income	Main sources of household income include rubber farms, fish farming, and livestock and swiftlet breeding.

Penepian Raya

Ethnicity	Melayu, Dayak, Tionghua		
Age/Gender	Age (years)	Male	Female
	0 – 6	36	47
	7 – 12	36	34
	13 – 18	34	43
	19 – 25	52	42
	26 – 40	93	92
	41 – 55	70	69
	56 – 65	23	21
	65 – 75	5	6
	> 75	0	0
	Total	349	354

	Both men and women from different ethnicities, age, religion, and socio-economic status who are eligible and willing to become members are represented in various formal and informal community institutions in the village. These include the Village Government, Village Forest Management Institution (LPHD), Farmers' Groups Association (Gapoktan), and Pre-School Education (PAUD). The same opportunities are given to both gender types in other formal or informal groups or institutions, but some are represented by just one gender. Only women are represented in the Family Well-being Empowerment/ Women's Group (PKK) and Integrated Health Service Posts (Posyandu), because children, health care and families are part of women's traditional roles. Only men are represented in the Village Consultative Body (BPD), Community Empowerment Institution (LPM), and Village-owned Business Enterprise (BUMDes). Participants explained that women are not interested in dealing with village issues and that the tasks require them to travel to the district capital. Also, members of the Village Customary Institution are restricted to those who have customary knowledge and are respected by all community members. So far, no women have been considered eligible for this. Religious groups were established based on the needs, so the groups can have mixed representation of men and women, such as Mosque Committee and Al-Qur'an Education for Children, or only women members, such as in the Majlis Taklim (Al-Qur'an reading group).
Well-being	The results of the participatory well-being assessment suggest that of 222 households, 0 are very capable, 7% are capable, 30% are medium, 51% are less capable, and 12% are not capable (see Table 23).
Land ownership and use	114 households own between less than 1 ha of land, 67 households own between 2 ha and 5 ha, 26 households own no land, and 15 households have more than 5 ha of land. Land is used for rubber farms and 'pemudak'/fallow farmland.
Household income	Main sources of household income include rubber farms, fish farming, and livestock and swiftlet breeding.

2.1.5 Project Zone Map (G1.4-7, G1.13, CM1.2, B1.2)

Project Zone

Project activities will be carried out within the village boundaries, and climate benefits will be generated from projection and restoration of the village forest areas. A KML file with the project zone and initial project area boundaries is available.³⁰ A map showing the boundaries of the project zone, the initial project villages and the initial Social Forestry areas (PPHD), and other villages in the project zone that

³⁰ KML file

may be eligible to join the project in the future is provided in Figure 4. Future project areas that could be included in the project include areas within Kapuas Hulu district that have secured a social forestry permit and that meet all of the eligibility criteria in Section 2.1.15. “Group 1” (in the map legend) denotes the initial project villages.

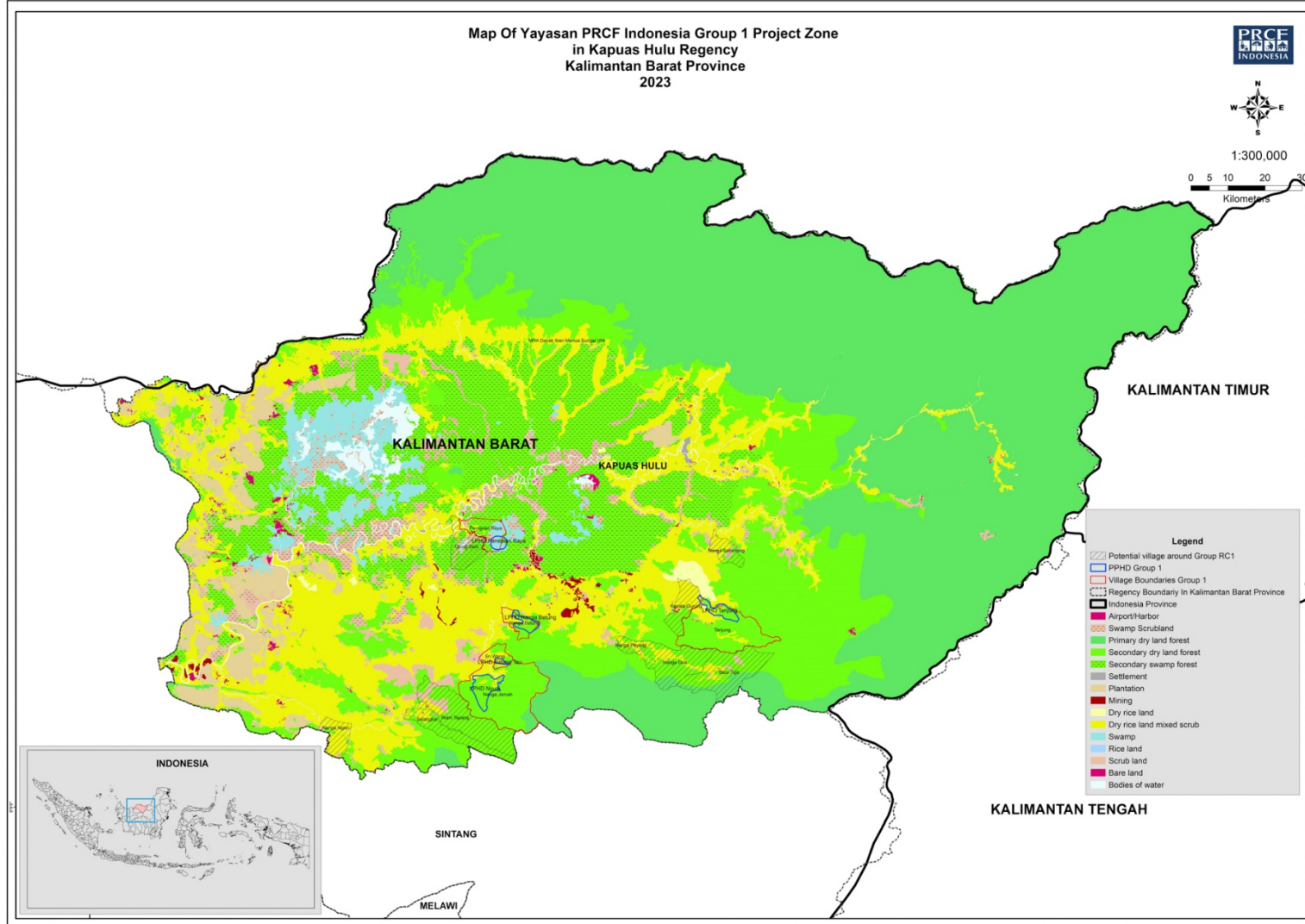


Figure 4 Project zone, initial project area and location of areas with current social forestry permits that may be eligible to join the project in the future

Offsite impacts

The potential leakage area is defined as all forested land within the project villages and villages adjacent to project villages (see Section 3.3.1). The project's potential leakage area for the initial project areas is the area covered by primary and secondary forest in Figure 5 to Figure 9.

The displacement of hunting of threatened or endangered species from Social Forestry areas to other forested areas by project activities is anticipated to occur within project villages and neighboring villages (see Section 5.3.1). These boundaries are also depicted in Figure 5 to Figure 9.

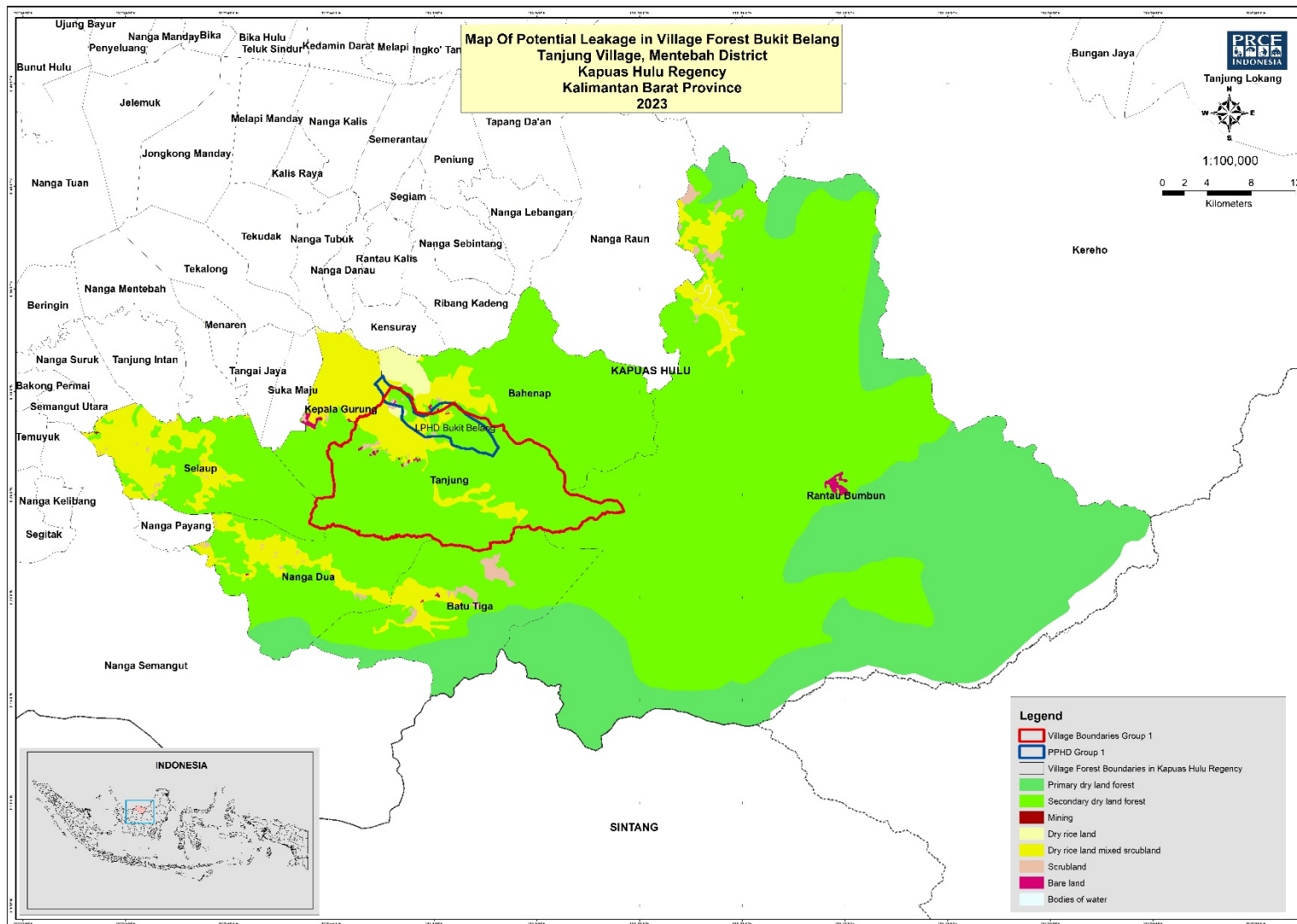


Figure 5 Village and social forestry area boundaries and potential leakage area for Tanjung

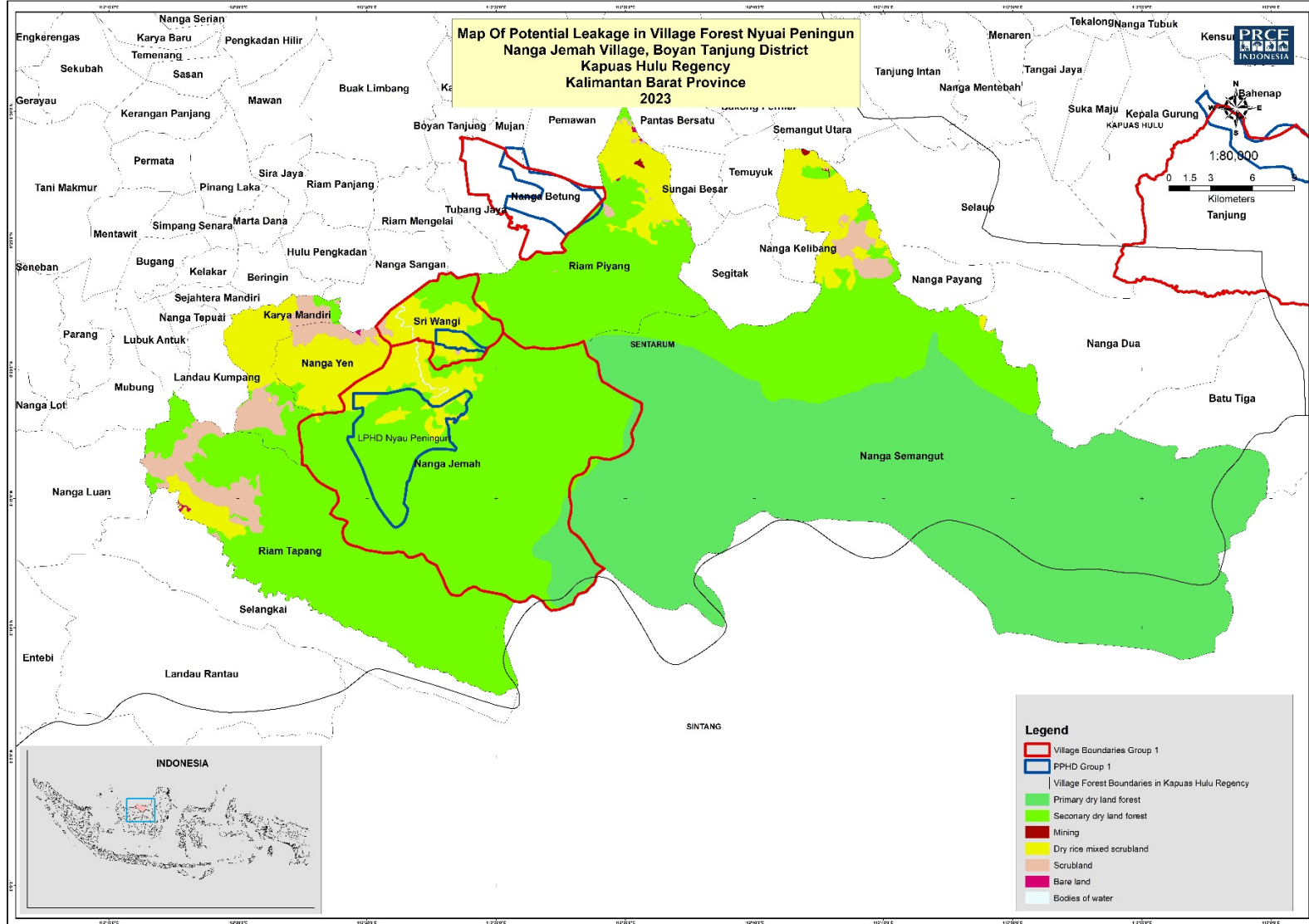


Figure 6 Village and social forestry area boundaries and potential leakage area for Nanga Jemah

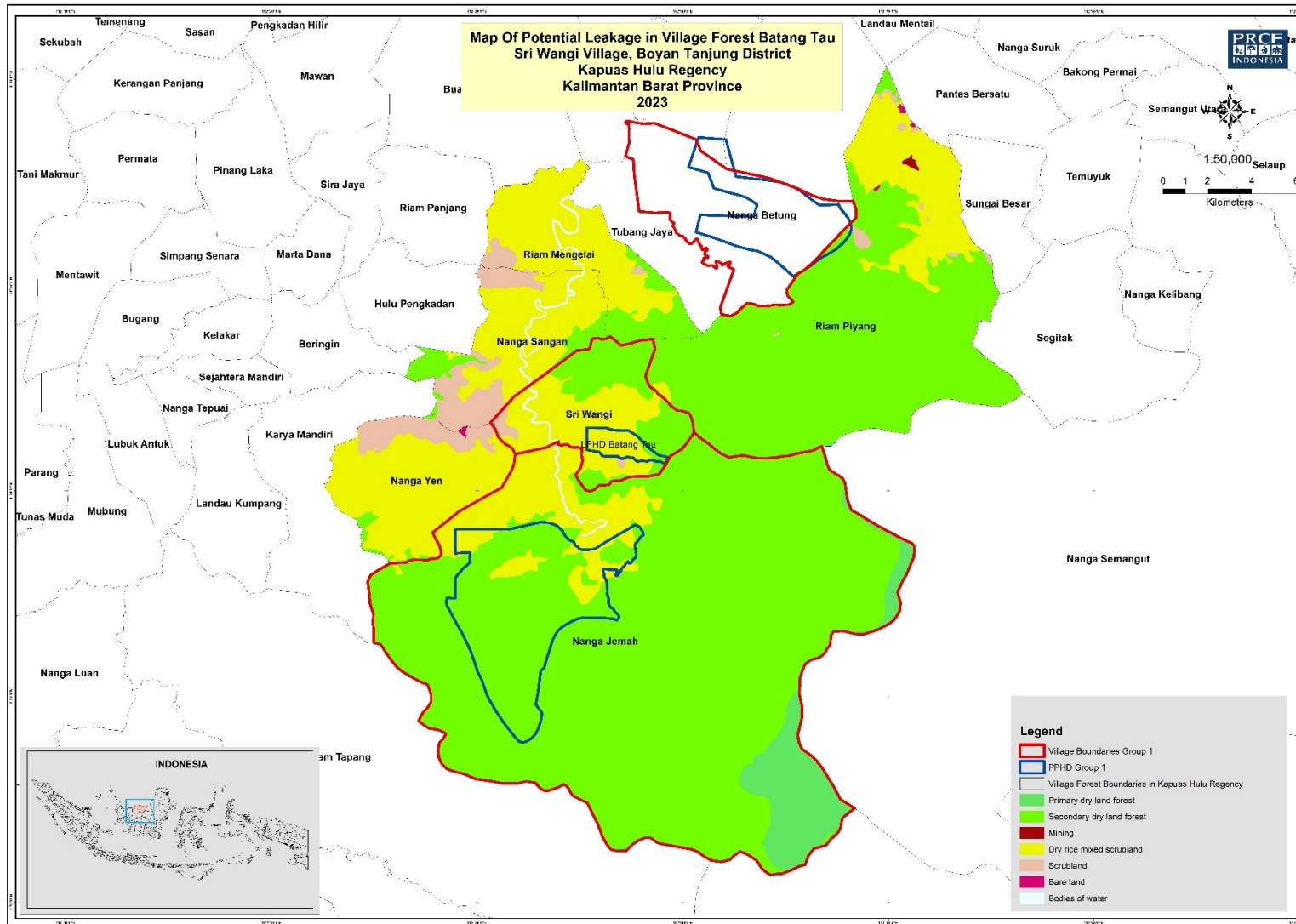


Figure 7 Village and social forestry area boundaries and potential leakage area for Sri Wangi

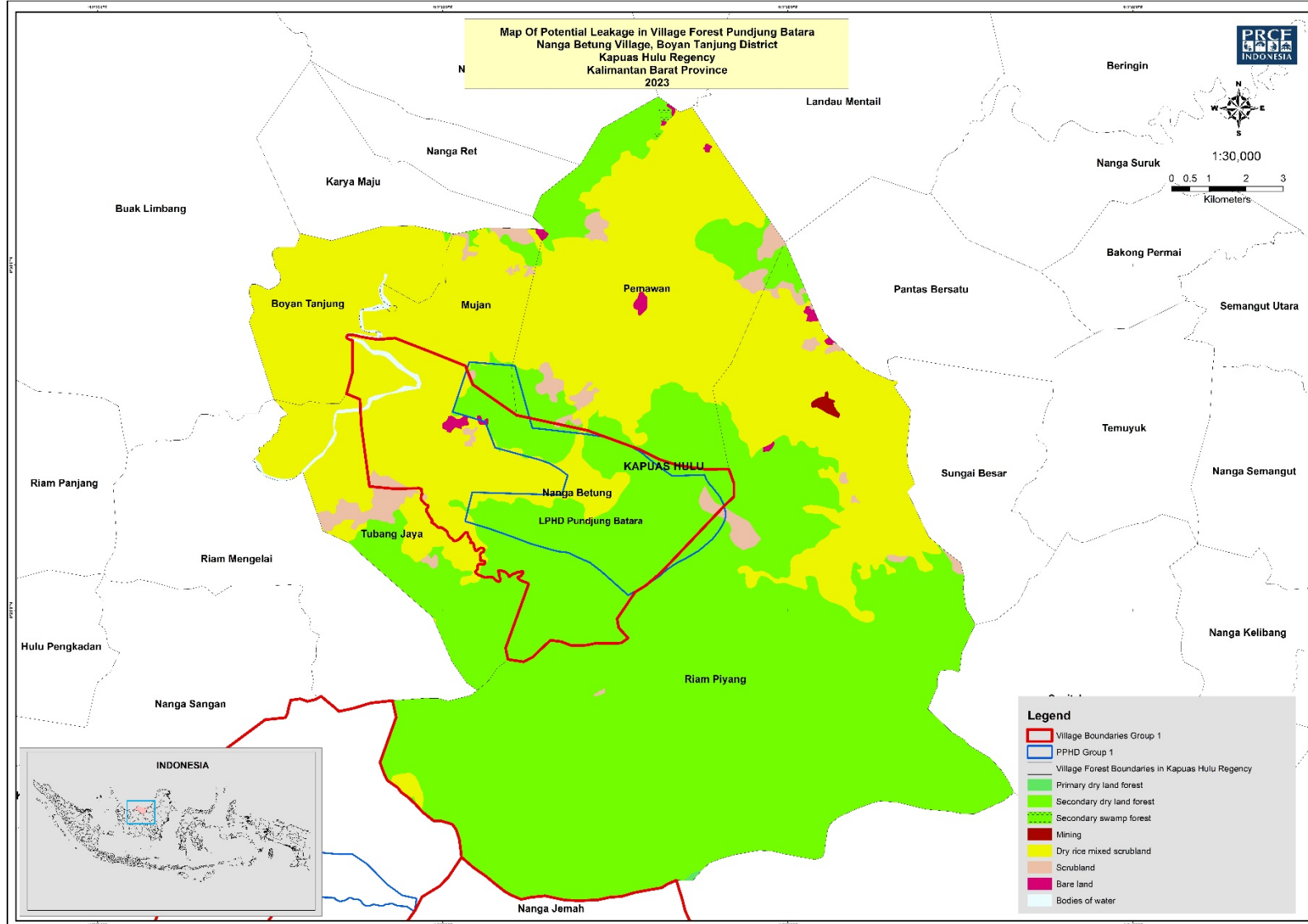


Figure 8 Village and social forestry area boundaries and potential leakage area for Nanga Betung

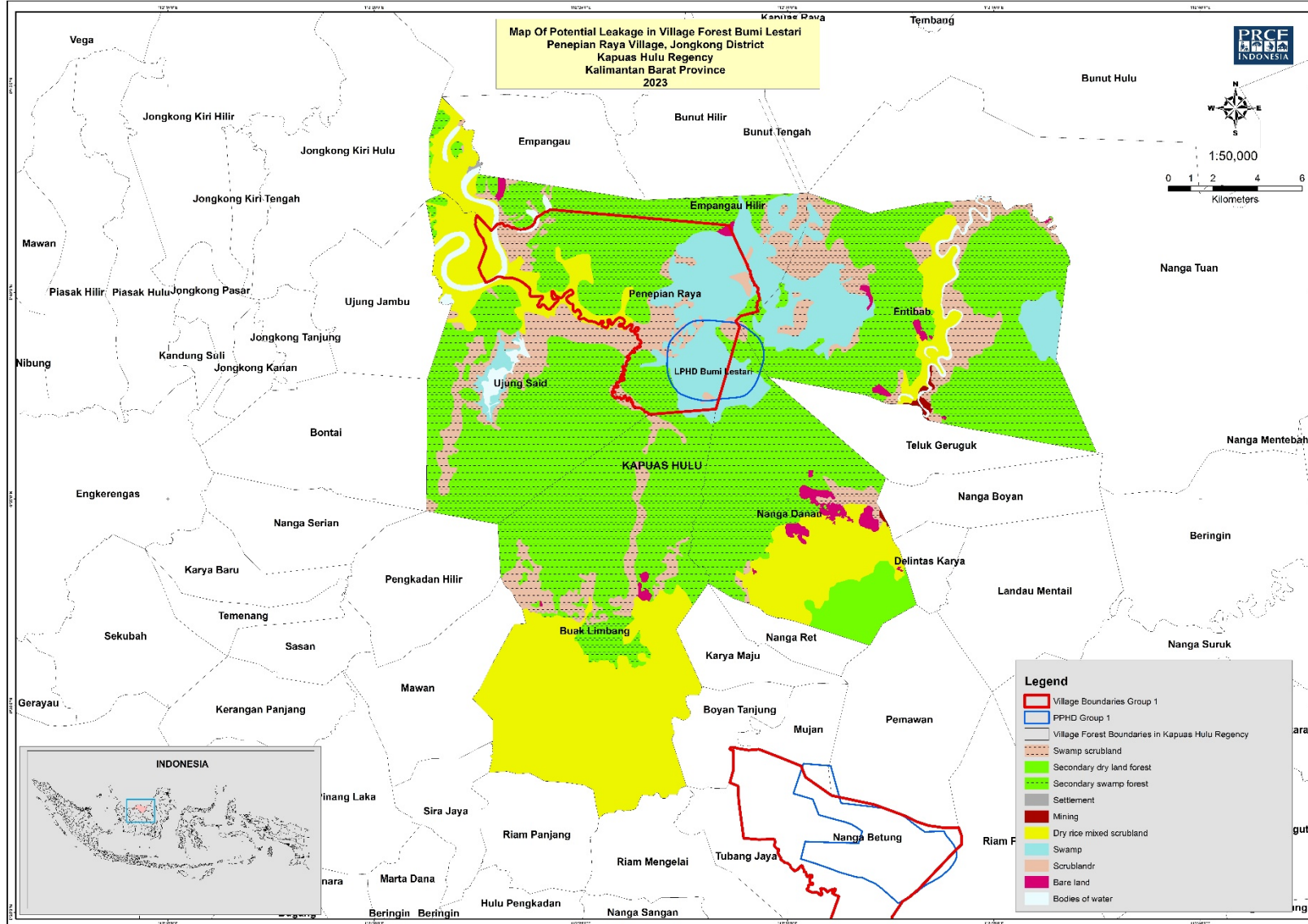


Figure 9 Village and social forestry area boundaries and potential leakage area for Penepian Raya

High Conservation Values

Participatory land use maps for the initial project areas were generated by groups of participants in focus group discussions from the project villages. Maps showing the location of high conservation values in the initial project areas are provided in Figure 10 to Figure 14.

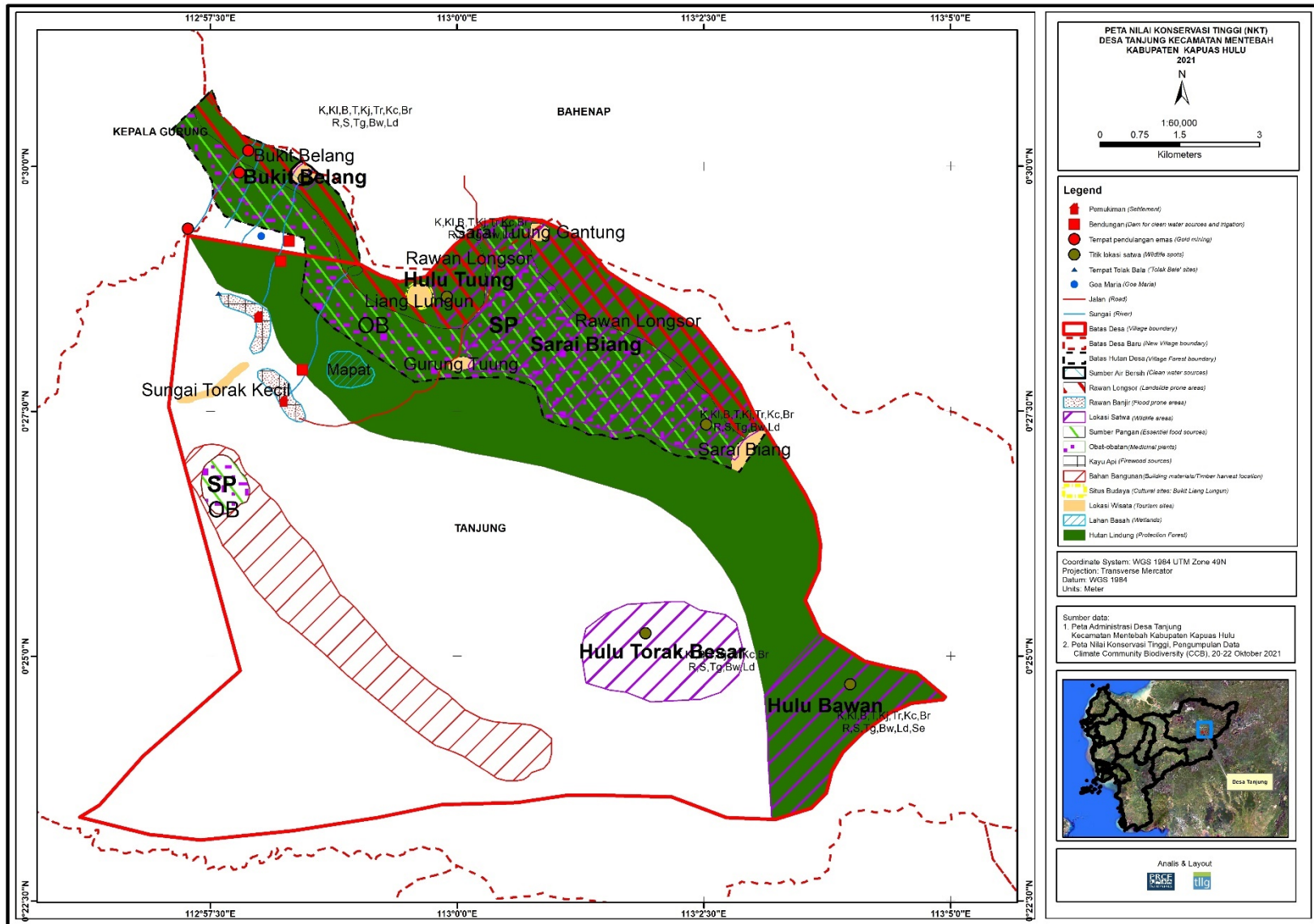


Figure 10 Digitized map of HCVs related to community well-being and biodiversity in Bukit Belang Village Forest, as described by FGD participants in Tanjung Village on 20 October 2021. Digitized by Yadi Purwanto, 2021

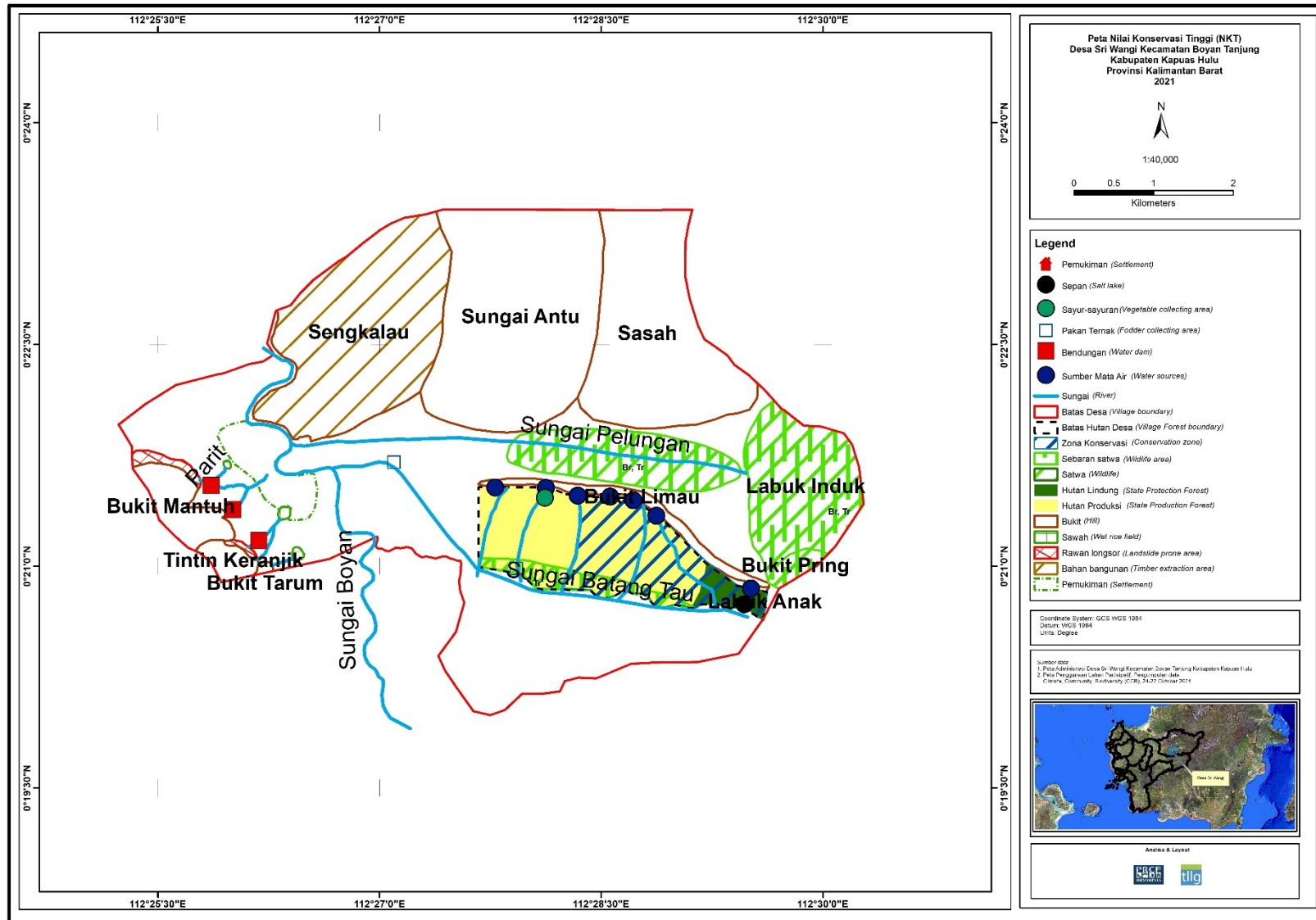


Figure 11 Digitized map of HCVs related to community well-being and biodiversity in Batang Tau Village Forest and Sri Wangi Village, as described by FGD participants in Sri Wangi Village on 25 October 2021. Digitized by Yadi Purwanto, 2021

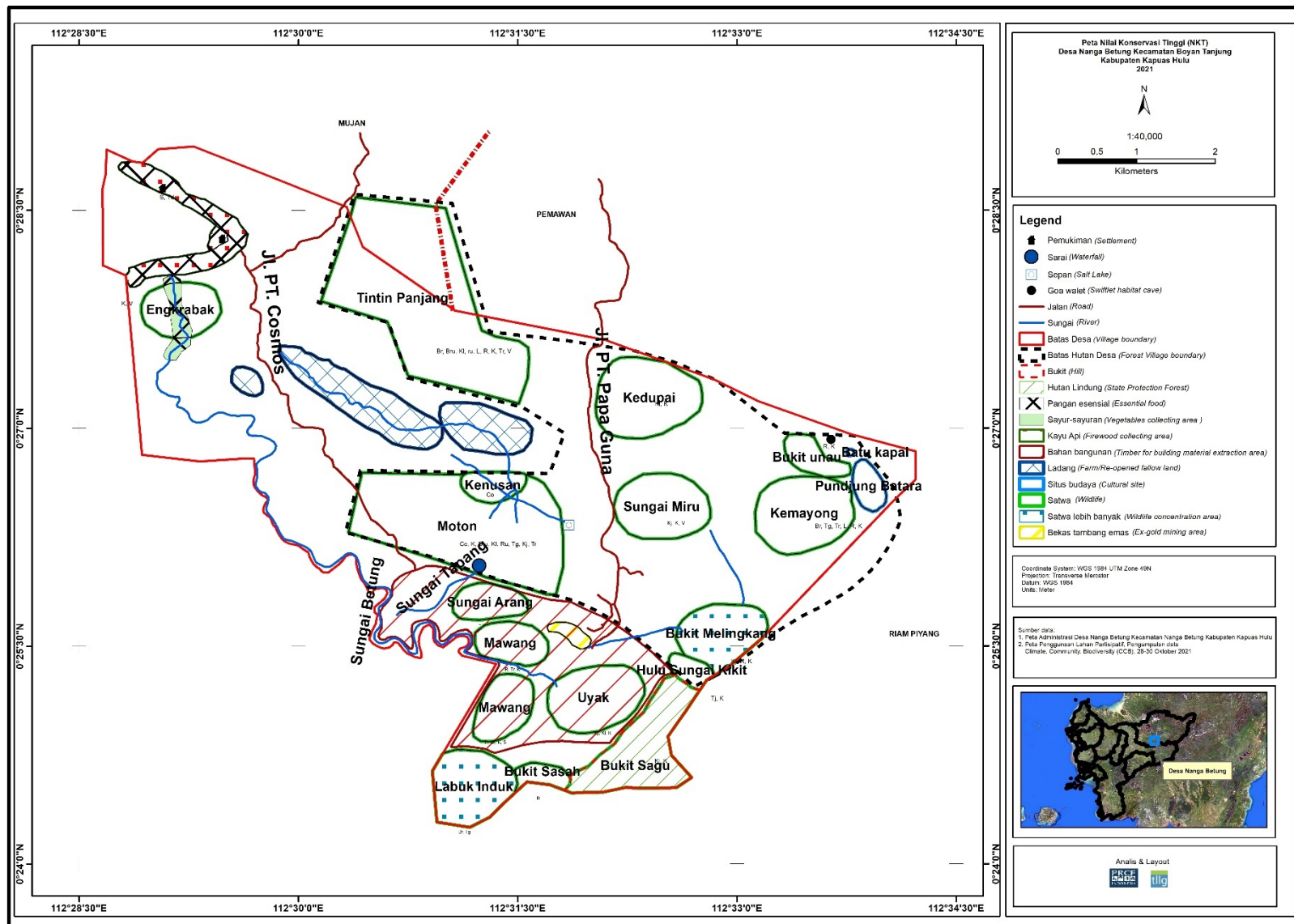


Figure 12 Digitized map of HCVs related to community well-being and biodiversity in Pundjung Batara Village Forest, as described by FGD participants in Nanga Betung Village on 28 October 2021. Digitized by Yadi Purwanto, 2021.

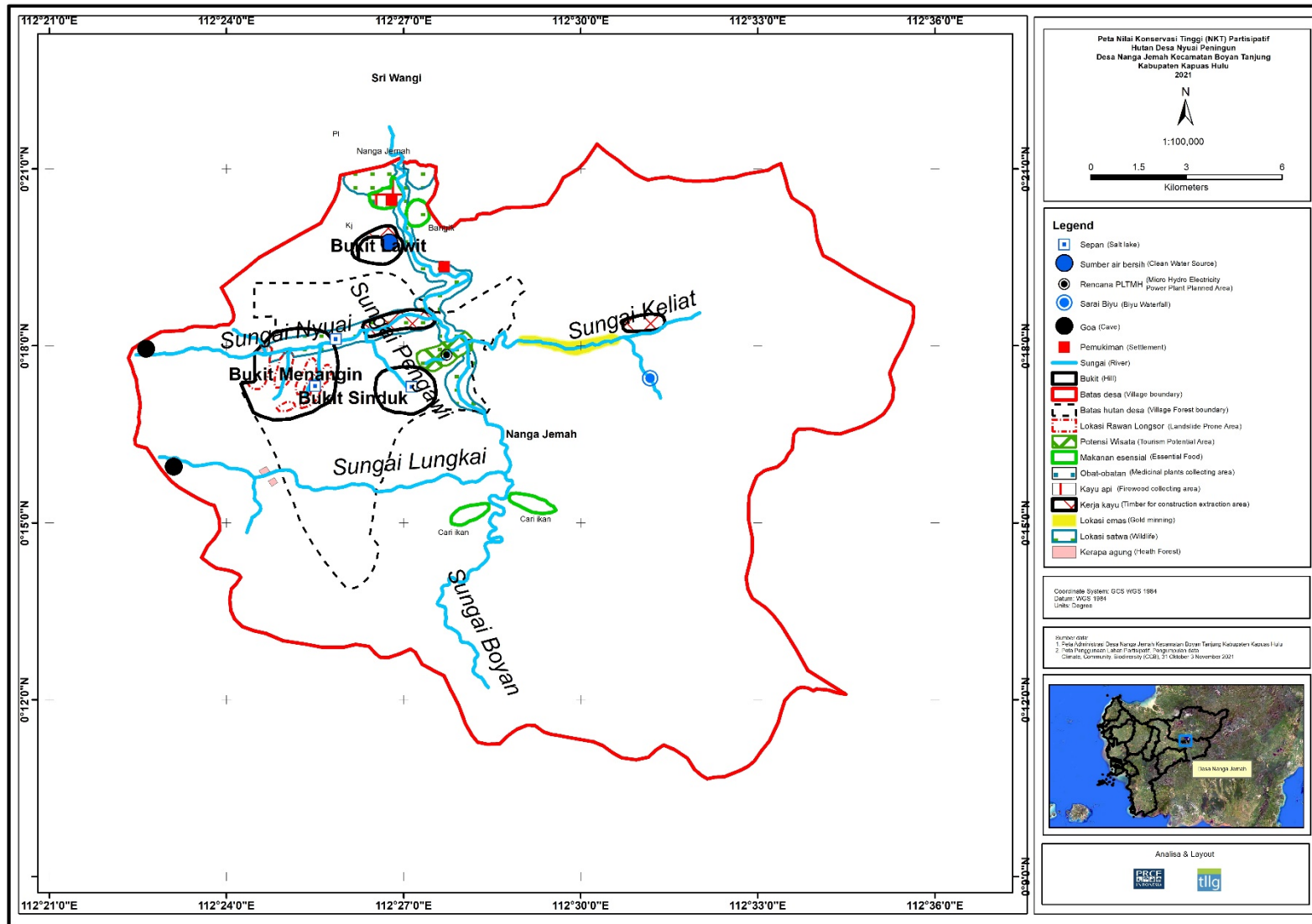


Figure 13 Digitized map of HCVs related to community well-being and biodiversity in Nyuai Peningun Village Forest and Nanga Jemah Village, as described by FGD participants in Nanga Jemah Village on 2 November 2021. Digitized by Yadi Purwanto, 2021.

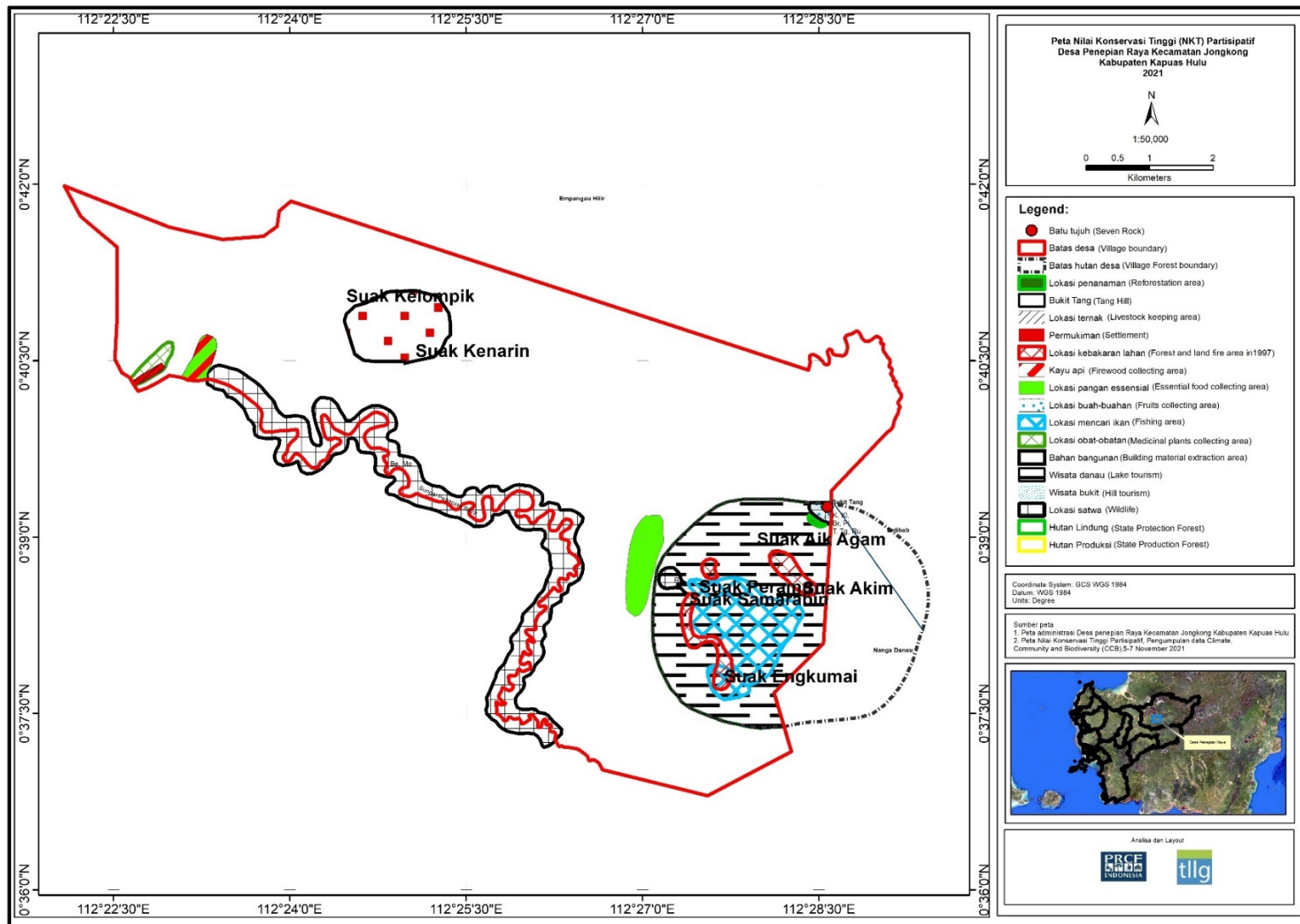


Figure 14 Digitized map of HCVs related to community well-being and biodiversity in Bumi Lestari Village Forest and Penepian Raya Village, as described by FGD participants in Penepian Raya Village on 5 November 2021. Digitized by Yadi Purwanto, 2021

2.1.6 Stakeholder Identification (G1.5)

Stakeholder identification and analysis was conducted by the PRCF Indonesia team with input from communities in the five initial project villages.¹⁶ An initial stakeholder list was generated by PRCF Indonesia, which was then validated and added to based on focus group discussions and key informant interviews in the initial project villages. Each stakeholder was then categorised according to their level of influence, interest, and impact on the project. Ten categories of stakeholders were identified and analysed:

- i. Government agencies (national, provincial, district, local)
- ii. Local people
- iii. Vulnerable groups
- iv. Rights holders
- v. Civil society organizations
- vi. International organizations
- vii. Private sector organizations
- viii. Media
- ix. Organizations involved in the project
- x. Research organizations

Seventy-four (74) stakeholders were identified across the five initial project areas. Each stakeholder was assessed based on its influence on and interest in the project, with a score of 1 to 5: 1 being the lowest and 5 the highest. Influence scores also indicated whether the stakeholders are likely to have negative or positive influence on the project. For scoring potential impact of the project on the stakeholders, scores could be positive (■), potentially negative (■), substantially negative (■), or neither positive nor negative (■). A description of the relationship of each stakeholder to the project along with the scores were documented in a matrix (see Appendix 1).

Based on these analyses, the appropriate level of engagement of each stakeholder in the different stages of project development and implementation was first determined by PRCF Indonesia team supported by TLLG. Four levels of engagement were described: i) Communication – providing information about the project to stakeholders; ii) Consultation – providing information and requesting feedback from the stakeholder; iii) Collaboration – working with the stakeholders to co-develop the project and make decisions about project management; iv) Approval – stakeholders from which it is necessary to obtain approval, consent, or endorsement to implement the project, including rightsholders, project affected people, authorities, and government authorities. The level of engagement is also described for each stakeholder in the matrix. After completion of the matrix draft, focus group discussions (FGD) with representatives of each village community were held to validate the stakeholder list and stakeholder analysis. The final results of this process were developed into a Stakeholder Engagement Plan (SEP) (see Section 2.3).

2.1.7 Stakeholder Descriptions (G1.6, G1.13)

The process for stakeholder identification and analysis is described in Section 2.1.6. A list of all stakeholders identified and a description of their relevance to project activities is provided in Appendix 1.

Communities in the project zone that have been identified by PRCF Indonesia as having potential to join the project are Kepala Gurung, Sebintang, Batu Tiga, Nanga Dua, Nanga Payang, Riam Tapang, Selangkai, Nanga Ngeri and Ujung Said.

2.1.8 Project Activities and Theory of Change (G1.8)

The project's Theory of Change (TOC), and activity plan are derived from an initial Situation Model that was developed by PRCF Indonesia and TLLG with input from focus groups in each of the initial project villages facilitated through problem tree analysis, threat assessment and barrier analysis exercises (see Figure 18).¹⁴ The Situation Model was then converted to a TOC and findings from an Environmental and Social Impact Assessment were incorporated in collaboration with communities in each of the initial project villages.¹⁶

Under Indonesia's Social Forestry program, the project villages have been granted long-term management rights to their social forestry areas (Village Forests for the initial project areas). The initial project areas are threatened by:

- Unsustainable use by the village communities for subsistence (shifting cultivation, timber, hunting and fishing) and commercial (gold mining, timber, agriculture and hunting) purposes;
- Unsustainable use by those outside the village communities for gold mining, and hunting; and
- Forest and land fires.

The underlying causes of unsustainable use are limited sources of income, which generates a reliance on use of the social forestry areas for food production, construction materials and cash income generation. A lack of effective governance of social forestry areas because village forest management institutions lack capacity and resources, and low levels of understanding of and therefore support for sustainable forest management from local communities, means regulations on the use of social forestry areas are not being enforced.

The project has secured long-term funding from the Rimba Collective to establish sustainable forest management in the initial project areas. It plans to do this by addressing the direct drivers and underlying causes of unsustainable land use, to achieve triple wins in the interlinked dimensions of climate change mitigation, sustainable community livelihoods development and biodiversity conservation.

Theory of Change for Achievement of the Project's Climate Objective

To achieve the project's Climate Objective to reduce GHG emissions from deforestation and forest degradation by protecting and conserving social forestry areas in Kapuas Hulu district, the following Theory of Change (TOC) was developed:

IF the Social Forestry Management Institution has resources, infrastructure and capacity to strengthen forest governance, management and protection, **AND** village communities are aware of the need for sustainable forest management, **THEN** there will be a reduction in unsustainable forest use. **IF** there is a reduction in unsustainable forest use, **THEN** there will be fewer greenhouse gas emissions caused by deforestation, forest degradation and forest fires.

This TOC relies on a series of assumptions related to the linkages with the other project objectives, particularly that sustainable livelihood opportunities established by the project meet community livelihood and economic needs for all community groups; that governance and monitoring activities are an effective deterrent of unsustainable use; that project safety risks are mitigated and that the project is able to build

and maintain effective relationships among stakeholders. This TOC is shown in

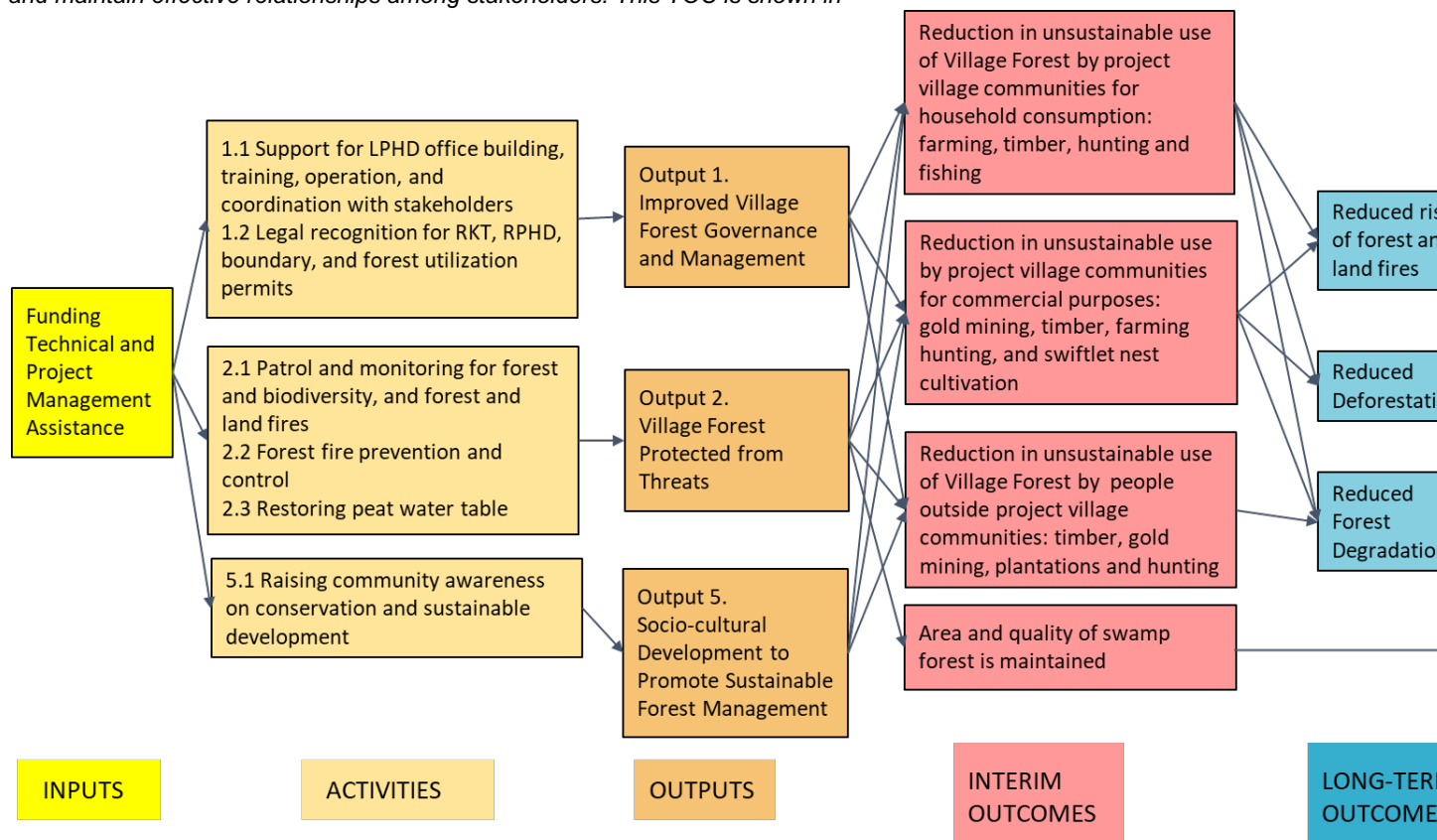


Figure 15.

Theory of Change for Achievement of the Project's Community Objective

To achieve the project's Community Objective to improve community prosperity by improving forest-based economic values and sustainable agriculture practices, the following TOC was developed:

IF community needs for food, building materials and economic development can be met through sustainable agricultural intensification outside the Village Forest, **AND** sustainable enterprise development **AND** compensation and incentives, **THEN** there will be an increase in sustainable use of Social Forestry areas **AND** a reduction in unsustainable use of the Social Forestry areas. **IF** there is economic and livelihood improvement through an increase in sustainable use of land within and outside the Social Forestry areas, **AND** a reduction in unsustainable use of the Social Forestry areas, **THEN** there will be increased community prosperity.

This Theory of Change relies on assumptions related to the linkages with the other project objectives, particularly that forest governance, management, protection activities are successful and result in demonstrable benefits for the community. It also assumes that the social and economic viability of the sustainable livelihoods and enterprises is integral to the project design, with a focus on generating net positive well-being benefits for all groups within the village communities. This Theory of Change is shown in Figure 16.

Theory of Change for Achievement of the Project's Biodiversity Objective

To achieve the project's Biodiversity Objective to protect and conserve biodiversity within social forestry areas in Kapuas Hulu district and to maintain and enhance habitat extent and quality for threatened species, the following TOC was developed:

IF the Social Forestry Management Institution has resources, infrastructure and capacity to strengthen forest governance, management and protection, **AND** village communities are aware of the need for sustainable forest management, **AND** forest is rehabilitated, **THEN** endangered flora and fauna will be conserved **AND** habitat quality will be maintained or enhanced.

Assumptions associated with this TOC are that the forest governance, management and protection and community livelihoods activities are successful in addressing drivers of forest degradation and loss; that conservation of Social Forestry areas provide obvious and demonstrable benefits for the community; and that external threats to biodiversity are manageable by the project. This Theory of Change is shown in Figure 17.

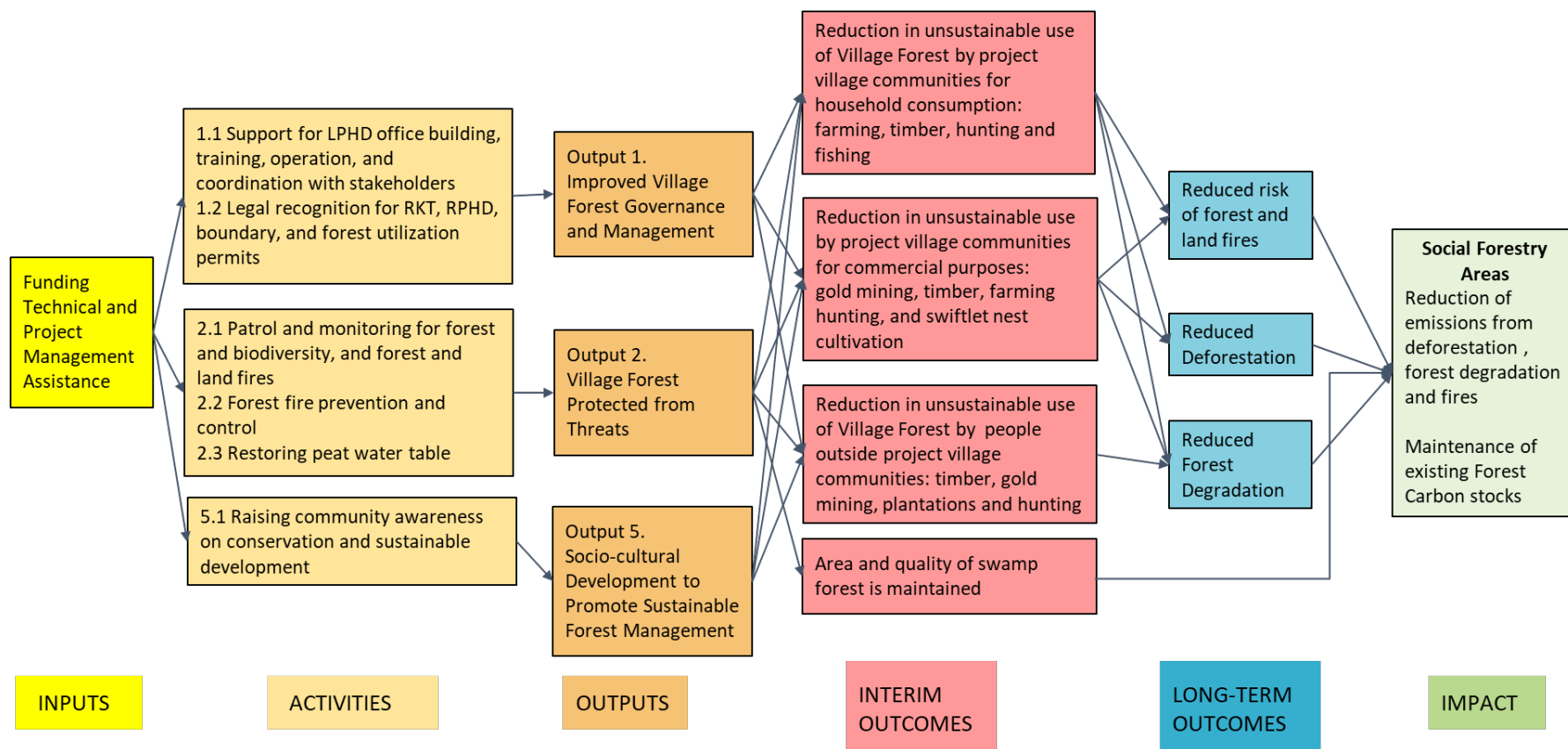


Figure 15 Theory of Change for Achievement of the Climate Objective

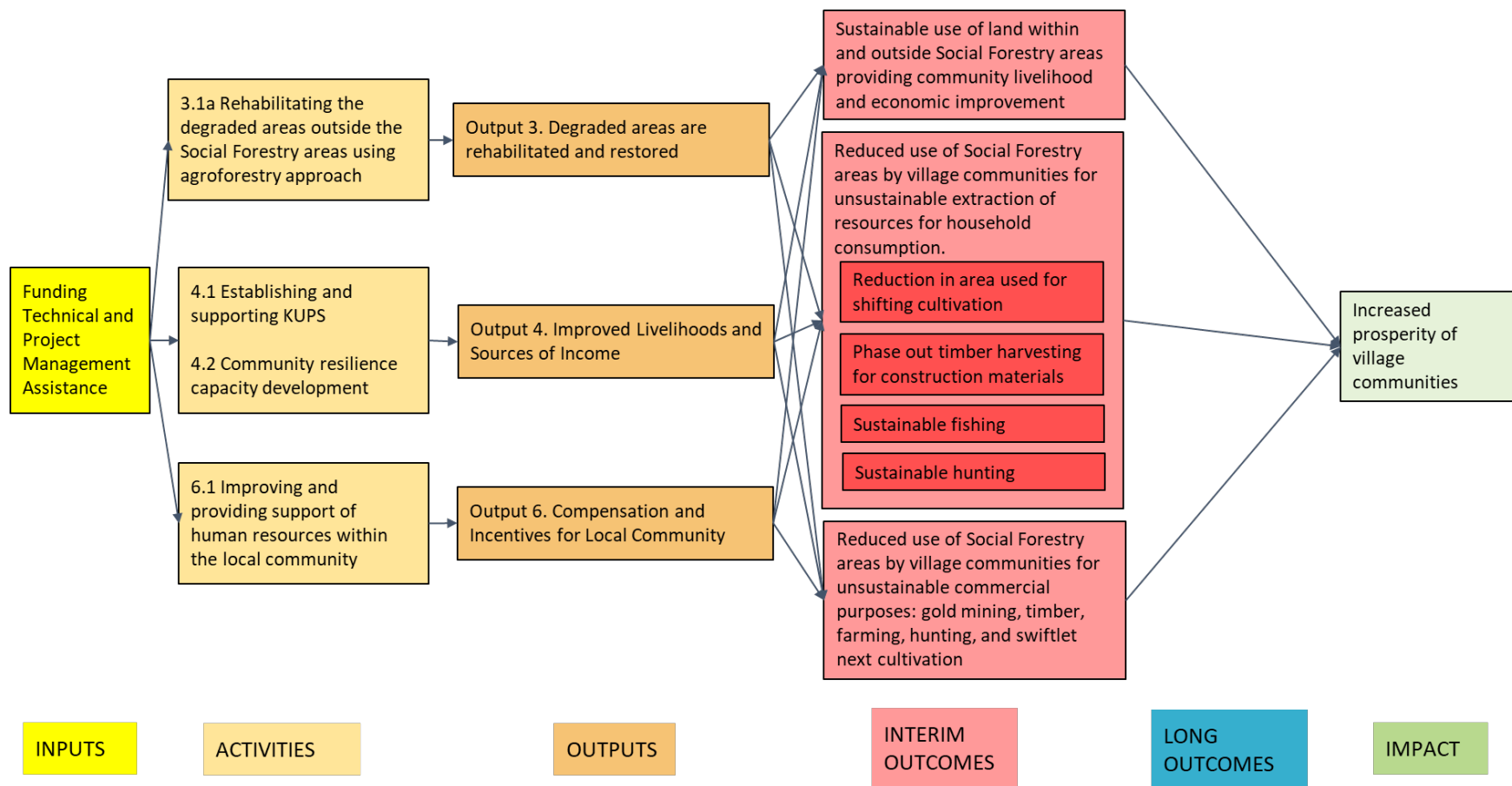


Figure 16 Theory of Change for Achievement of the Project's Community Objective

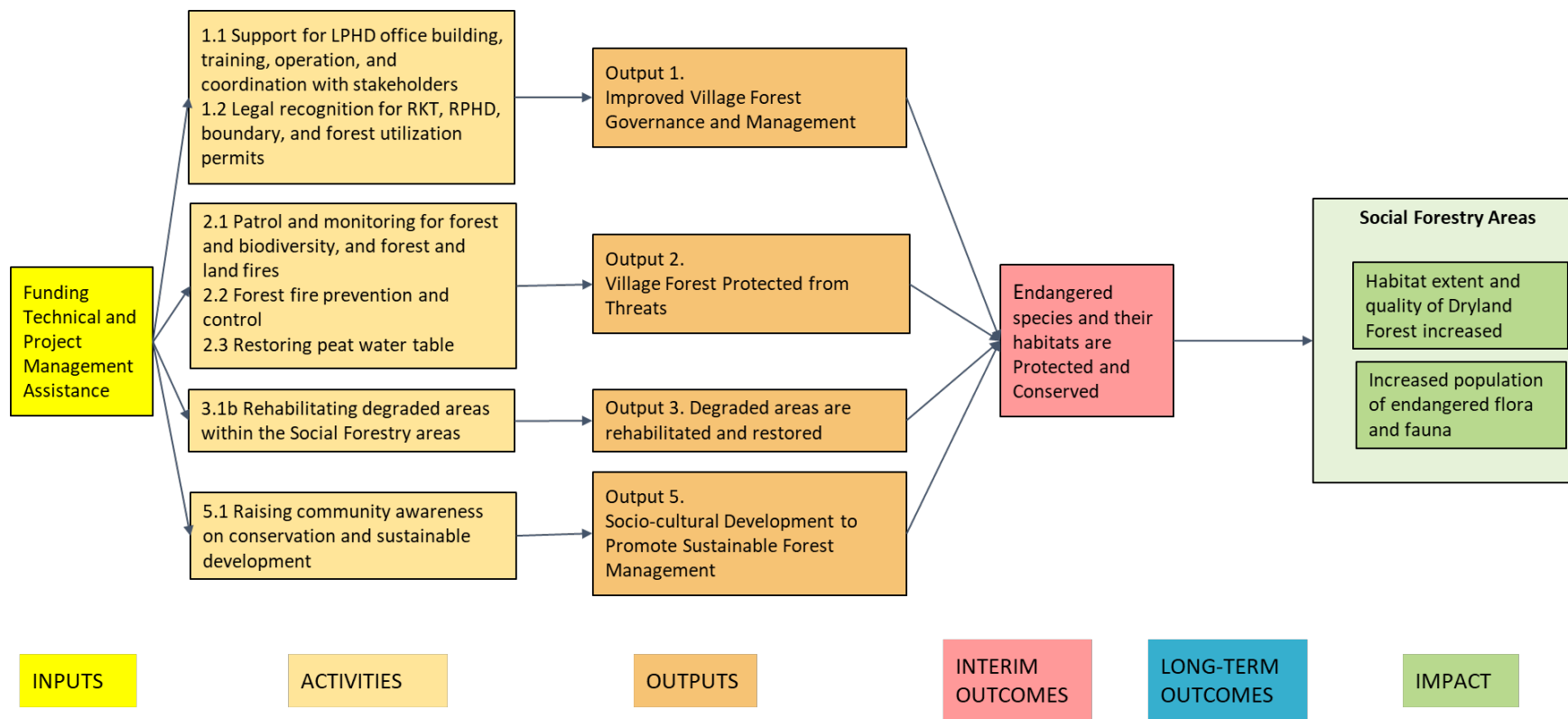


Figure 17 Theory of Change for Achievement of the Project's Biodiversity Objective

Project Activity Plan

To achieve the project's objectives, and in line with the TOC described above, the project will implement the activities described in Table 6 to control or eliminate threats to forest and biodiversity, rehabilitate degraded areas and improve community well-being. To ensure net-positive community impacts for the (initial) project villages, activities to improve community livelihoods (Output 4) will be targeted at project participants and those households whose livelihood activities are negatively impacted by project activities to protect the project areas from threats to forest and biodiversity (Output 2).

Table 6 Project Activity Plan

Output/Activity	Example Activities
Output 1: Improved Village Forest Governance and Management	
Activity 1.1 Support for LPHD office building, training, operation, and coordination with stakeholders	• Stipend and insurance for LPHD staff • Construction and maintenance of LPHD office • Purchasing office consumables for LPHD operation • Purchasing office equipment for LPHD, including electronics, furniture, and electricity • Providing vehicle and vehicle maintenance for LPHD operation and to support patrol activities • Providing transport and subsistence include local transport, lodging, and travel allowance • Training on LPHD program preparation and formulation, LPHD SOPs, village forest management, institutional economic strengthening, complaint and problem management, administrative, financial and computer management, leadership and gender, village regulation drafting, etc.
Activity 1.2 Legal recognition for annual workplan (RKT), 10-year forest management plans (RPHD), village forest boundaries, and forest utilization permits	• Development of LPHD management plan, includes village forest workplan, annual workplan, and socialization of activities and FPIC meeting • LPHD monthly meeting • Facilitating on SOP for conflict handling and village regulation on village forest management and protection • Boundary marking • Develop of reporting including technical evaluation and coordination with local authorities • Stakeholder engagement
Output 2: Forest Ecosystems within Social Forestry Areas are Protected from the Threat of Deforestation and Degradation	
Activity 2.1 Patrol and monitoring for forest and biodiversity, and forest and land fires	• Patrol and monitoring team development • Provision and maintenance of equipment and tools for patrol and monitoring teams, including patrol huts, information boards, handy talkie, drone, camera, camera trap, GPS, smartphone, binocular, camping equipment, and protective clothing • Support patrol and monitoring operations, including meals, fuels, and other supplies. • Training/comparative study for capacity building of patrol and monitoring team • Support internal meeting for patrol and monitoring team • SOP development for patrol and monitoring operation, and review as needed

Activity 2.2 Forest fire prevention and control	• Stipend for fire prevention and control team • Building and maintenance of fire towers • Purchasing equipment for fire patrols (uniform, helmet, mask, gloves, boot, backpack, dry bag, headlamp, water pump and pipe) • Training on forest fire control
Activity 2.3 Restoring peat water table	• Assessing peat water table
Output 3. Degraded Areas are Rehabilitated and Restored	
Activity 3.1 Rehabilitating the degraded areas within the village forest and outside using agroforestry approach	• Purchasing materials for reforestation and agroforestry • Nursery establishment and seedling purchase • Salary for planting and maintenance staff
Output 4. Improve Livelihoods and Develop Sources of Income	
Activity 4.1 Establishing and supporting livelihood activity groups (KUPS)	• Training on improved or alternative livelihood activities such as agriculture, fish farming, livestock, plantations, swallow nest cultivation, honey, ecotourism, and NTFPs • Capital support and infrastructure development for livelihood activity groups • Support for improved marketing of products
Activity 4.2 Community resilience capacity development	• Training on business planning and value chain, business promotion and marketing, and bookkeeping • Support for village infrastructure development
Output 5. Socio-cultural Development to Promote Sustainable Forest Management	
Activity 5.1 Raising community awareness on conservation and sustainable development	• Provide training events for local community - especially the younger generation - related to the culture and to the local wisdom to manage village forests sustainably • Conduct cultural arts festival to provide local community with event to show their ability, knowledge, and their local wisdom related to sustainable forest management • Producing awareness raising printed media materials
Output 6. Provide Compensation and Incentives for Local Community	
Activity 6.1 Improving and providing support of human resources within the local community	• Support for university entrance fee • Provide service bond scholarship for outstanding students from each village to study at university (includes scholarships for studying at university and living costs for students)

These project activities will be underpinned by two final output areas to ensure smooth management of the project and its activities.

Output 7. Effective Project Monitoring, Reporting and Evaluation	
Activity 7.1 CCB certification assessment, registration, and verification process	• CCBS Project Design Document development • CCBS Project Validation

Activity 7.2 Monitoring, Reporting, and Verification (MRV)	• Verifications by Certification Standard and Preliminary Verification by Rimba Collective • Technical assistance for Verification
Output 8. Effective Project Coordination and Management	
Activity 8.1 Support for staff and professional services	• Salary and insurance for project staff • Translation and financial audit costs
Activity 8.2 Logistical support	• Office space rental • Travel and subsistence payments for project staff • Vehicle purchase and maintenance • Purchasing office equipment and consumables

2.1.9 Climate, Biodiversity and Community Benefits Assessment Period (G1.9)

The project will last for 25 years, starting from 1 Jun 2022 to 31 May 2047. Climate, biodiversity, and community benefits will be assessed annually throughout this period.

2.1.10 Differences in Assessment Periods (G1.9)

Not applicable.

2.1.11 Implementation Schedule (G1.9)

Date	Milestone(s) in the project's development and implementation
Jun 2019 – Oct 2020	Scoping Phase FPIC process completed. Signature of FPIC Statement by community representatives: Tanjung (29 Jun 2019), Nanga Betung, Sri Wangi, Nanga Jemah (12, 15, 16 Aug 2020), and Penepian Raya (9 Oct 2020).
20 Sep 2021	Completion of Rimba Collective Technical Due Diligence Process
Oct – Nov 2021	Signature of Concept Phase FPIC Statements by representatives of five village communities: Tanjung (21 Oct 2021), Nanga Betung (30 Oct 2021), Sri Wangi (27 Oct 2021), Nanga Jemah (3 Nov 2021), Penepian Raya (6 Nov 2021)
17 Dec 2021	Finalization of Baseline Study Report
Jan 2022	Signature of MoUs between PRCF Indonesia and five LPHDs.
17 May 2022	Signature of Rimba Collective Project Services Agreement
1 Jun 2022	Project Start Date
8 Mar 2023	Second phase of fieldwork completed, covering Theory of Change, Environmental and Social Impact Assessment, Opportunity Cost Assessment, FPIC and Grievance Mechanism, Socioeconomic Monitoring Baseline Data Collection

July 2023	Signature of Design Phase FPIC Statements by community representatives: Tanjung (13 Jul 2023), Nanga Betung (11 Jul 2023), Sri Wangi 24 Jul 2023), Nanga Jemah (14 Jul 2023), and Penepian Raya (18 Jul 2023).
Oct 2023	Project Description draft completed.
Oct 2023	Socialization of Project Description completed.
Nov 2023	Signature of Implementation Phase FPIC Statements
Nov 2023	Signature of Cooperation Agreement between PRCF Indonesia and five LPHDs
1 Jun 2024	Target date for completion of project Validation
1 Jun 2022 to 31 May 2025	First monitoring period; subsequent monitoring periods will cover a 2-year period (i.e. 1 Jun 2025 to 31 May 2026 etc.). The project will be Verified at the end of each monitoring period.
1 Jun 2022 to 31 May 2047	Project lifetime and GHG accounting period

2.1.12 Risks to the Project (G1.10)

To achieve the expected climate, community and biodiversity benefits requires effective village forest management to reduce deforestation, forest degradation and threats to biodiversity. The main risks that these benefits will not be achieved or maintained are that:

- Capacity of LPHD to effectively manage village forests is not maintained
- Village forests are not effectively protected from threats
- Village communities' support for village forest management is not maintained

The activities designed to mitigate these risks are summarized in Appendix 2.

Environmental and Social Impact Assessments carried out in each of the initial project villages,^{16, 31} identified the potential risks to climate, community and biodiversity benefits, which are summarized in Table 7.

Table 7 Summary of Environmental and Social Risks and Mitigation Actions

Risk Type	Potential Risks	Mitigation Actions
Vulnerable Groups	Groups that are particularly vulnerable to negative impacts from the project include farmers whose only land is within Social Forestry areas; and individuals whose main source of income is related to timber harvesting.	Livelihood development activities (Output 4) will target those whose livelihoods are negatively impacted by project activities, and be informed by an opportunity cost assessment.
Community, Health,	i) Forest patrol activities could create conflict between patrol teams and those	i) Forest patrol teams are not responsible for enforcement of regulations and will

³¹ Rimba Pakai Kemuka Ari Program Environment and Social Impact Screening Summary

Safety and Security	using natural resources within the Social Forestry areas, leading to potential risks to both parties. ii) Project activities could lead to an increase in human-wildlife conflict.	instead report any violations to law enforcement officials. ii) The project allows hunting for pest control of unprotected species (e.g. wild pigs).
Resource Efficiency, Pollution, Waste, Chemicals and GHG Emissions	Project activities have potential to generate pollution and GHG emissions from agricultural intensification including: i) increased manure production by livestock, ii) increased use of chemical fertilizers, iii) revitalization of paddy fields.	GHG emissions from all potential livelihood development activities (Output 4) will be calculated, and only activities that do not have the potential to generate significant GHG emissions will be included.
Restrictions on Access and Livelihoods	Project activities that aim to reduce unsustainable use of Social Forestry areas will result in restrictions that affect the livelihood activities of project village communities and neighboring village communities.	Livelihood development activities (Output 4) will target those from the project villages whose livelihoods are negatively impacted by project activities, and be informed by an opportunity cost assessment.
Indigenous Peoples	Some of the individuals whose livelihood activities will be restricted as a result of project activities are members of customary communities whose traditional territories overlap the project areas.	The design of project activities has followed a Free, Prior and Informed Consent (FPIC) process that includes representatives of all customary communities who could be affected by the project.³²
Land Tenure and Conflict	i) Conflict over village and Social Forestry area boundaries could be exacerbated by project activities. ii) There is a potential risk of conflict within project village communities if project benefits are not distributed fairly, with adequate consideration of those facing negative impacts from restrictions on access and livelihoods.	i) For the initial project areas, PRCF Indonesia has facilitated discussions between villages and agreement has been reached that project activities will only be carried out in parts of the Social Forestry areas within the project village boundaries. ii) PRCF Indonesia has worked in collaboration with the local village communities to understand potential negative impacts of project activities and develop livelihood activities that target those whose livelihoods could be negatively impacted by project activities.

³² Stakeholder Engagement Plan

2.1.13 Benefit Permanence (G1.11)

To maintain and enhance the climate, community and biodiversity benefits beyond the project lifetime, project activities include measures to improve livelihoods and develop sources of income and income productivity in the project villages that outweigh any opportunity costs associated with the project activities (see Table 8). These measures are needed to maintain the interest in forest protection and restoration and provide additional sources of income to cover the long-term costs of effective forest management beyond the project lifetime. Project activities will enable the project village communities to maintain and renew their Social Forestry permits after their initial term where applicable, for example Village Forest permits are issued for a renewable 35-year period.

Table 8 Potential Opportunity Costs and Mitigation Actions

Affected Group	Description	Potential Opportunity Cost	Mitigation Actions
Farmers with land in Social Forestry areas	The development and enforcement of regulations on use of land and resources within Social Forestry areas could prevent farmers from expanding their existing cultivated land, or reduce land used for cultivation by planting former fields with trees.	Yields and household incomes of farmers will be reduced if cultivation areas are taken out of production, or if expansion of cultivation areas that would take place in the without-project scenario is prevented.	As regulations on use of land and resources within Social Forestry areas are developed, affected households will be identified, opportunity costs expected to result from the regulations will be estimated, and alternative livelihood activities that are sufficient to outweigh any opportunity costs will be agreed before the regulations are enforced.
Gold miners	The development and enforcement of regulations on use of land and resources within Social Forestry areas could lead to a reduction in gold mining within the Social Forestry areas where it is currently practiced.	Income from gold mining will be reduced if gold mining is prevented in areas where gold mining would be carried out in the without-project scenario.	
Timber harvesters	The development and enforcement of regulations on land use and resources within Social Forestry areas could lead to a reduction in timber harvesting within the Social	Access to construction materials and income from timber sales will be reduced if timber harvesting lower than in the without-project scenario.	

	Forestry areas where it is currently practiced.		
Hunters	The development and enforcement of regulations on hunting within Social Forestry areas could require hunters to reduce or stop hunting within Social Forestry areas.	Yields and household income of hunters will be reduced if less hunting is allowed within the Social Forestry areas than in the without-project scenario.	

2.1.14 Financial Sustainability (G1.12)

PRCF Indonesia has secured long-term funding to support the project that is sufficient to cover the full cost of all project activities over the 25-year project lifetime for the initial project villages.³³ This includes financial support to the village forest LPHDs. Additional villages will only be added to the project if long-term funding that is sufficient to cover the costs of all project activities is secured. The project does not currently intend to generate revenue from GHG emissions reductions and/or removals.

2.1.15 Eligibility Criteria for Grouped Projects (G1.14)

New project areas can be added to the project at the time of verification. To be added to the project, each project area must meet the following eligibility criteria:

The project area must:

- Be located within Kapuas Hulu district, West Kalimantan.
- Have secure tenure or user rights for a minimum of 25-years from the project start date assigned to local communities or customary communities through the Indonesian Social Forestry programme through designation as a Village Forest (*Hutan Desa*), Community Forest (*Hutan Kemasyarakatan*), or Customary Forest (*Hutan Adat*).³⁴

The rights-holders for the project area must:

- Have agreed to work with PRCF Indonesia on the development and implementation of the project following the stakeholder engagement and FPIC processes described in Section 2.3.
- Have collaborated with PRCF Indonesia in information gathering activities to describe the context of the project area and local drivers of deforestation and forest degradation.
- Have collaborated with PRCF Indonesia in project design activities including development of a Theory of Change, Environmental and Social Impact Assessment, and development of an activity

³³ A summary of the Project Services Agreement between PRCF Indonesia and Rimba Collective will be made available to the validator.

³⁴ Further information on Indonesia's Social Forestry Program available on the website of the Directorate of Social Forestry Area Preparation, Directorate General of Social Forestry and Environmental Partnership, Ministry of Environment and Forestry <https://pkps.menlhk.go.id/>

plan with potential to generate climate, community, and biodiversity benefits from management of the Social Forestry area.

The project area must not:

- Have secured sufficient funding to implement sustainable forest management plans in the Social Forestry area.

The rights-holders for the project area must not:

- Have the capacity or resources to implement sustainable forest management in their Social Forestry area without the support of the project.

Prior to adding new project areas, PRCF Indonesia will work closely with village communities to develop feasible activity plans for sustainable forest management that contribute to the project's objectives. Details of all new project areas, and evidence that all eligibility conditions have been met will be provided in a Monitoring Report.

2.1.16 Scalability Limits for the Grouped Projects (G1.15)

Limits to the scalability of the project are:

- The availability of Social Forestry areas that meet eligibility criteria described in Section 2.1.15;
- The capacity of PRCF Indonesia to facilitate project development and implementation with the village communities; and
- The availability of funds to finance project development and implementation.

2.1.17 Risk Mitigation Approach for Grouped Projects (G1.15)

To avoid risks to climate, community and biodiversity benefits that would occur if the project expands beyond the scalability limits described in Section 2.1.16, project expansion will follow a phased approach, with new project areas added in groups, as PRCF Indonesia is able to:

- Identify new areas with potential to join the project and obtain agreement from project communities to consider development of a project;
- Recruit and train at least two dedicated project officers for each village facilitated, and maintain the core staff members and expertise needed to support the project; and
- Identify and secure sources of funds that are sufficient to cover the full costs of project development and implementation are identified.

2.2 Without-project Land Use Scenario and Additionality

2.2.1 Land-Use Scenarios without the Project (G2.1)

Land use and land cover in the project zone and initial project areas are described in Section 2.1.3. Drivers and underlying causes of deforestation, forest degradation and biodiversity loss under current land-use practices in the project zone are summarized in Figure 18. These drivers were identified through

participatory appraisal exercises in the five initial project villages, combined with expert input from PRCF Indonesia and TLLG.^{14, 16}

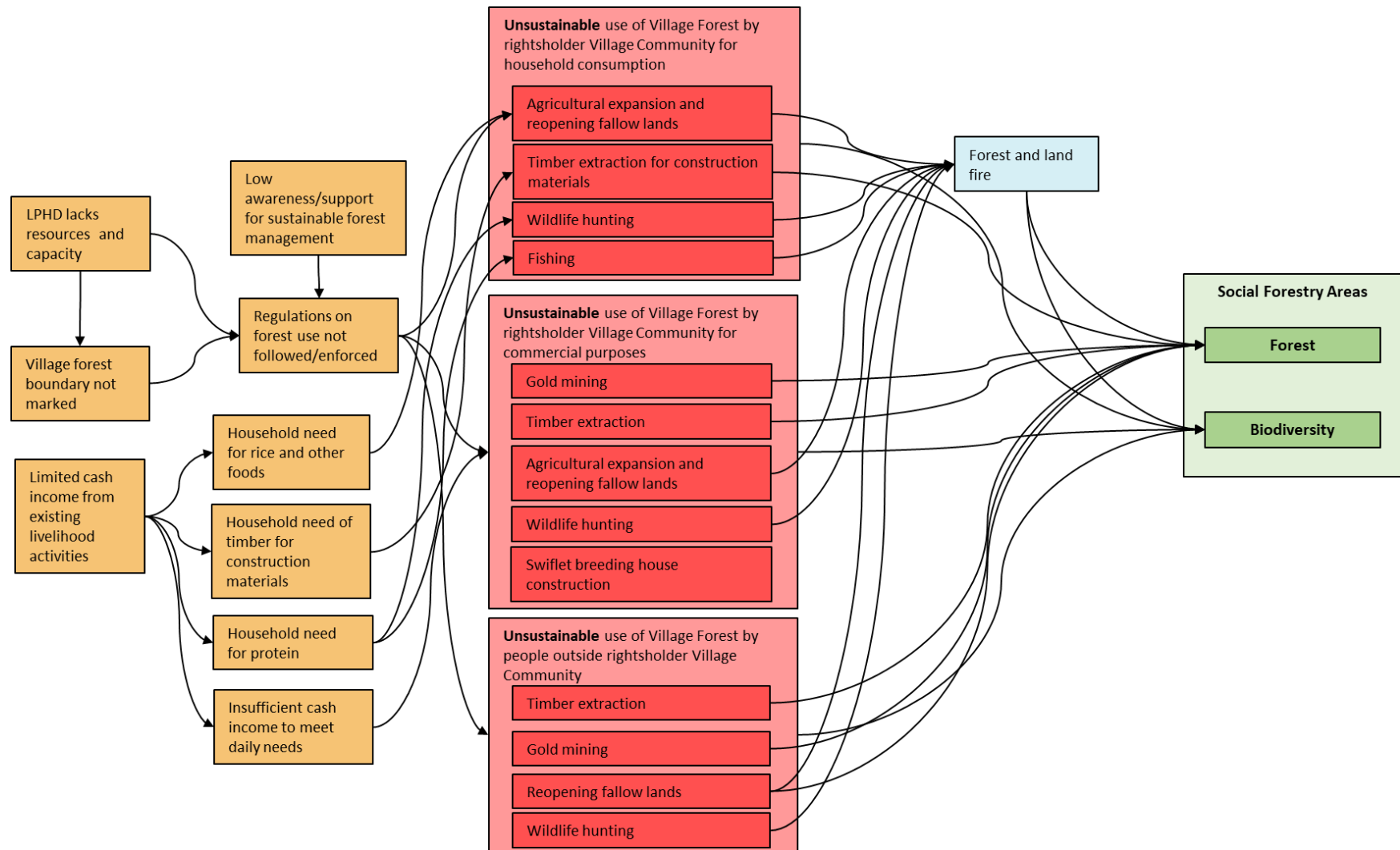


Figure 18 Situation model for deforestation, forest degradation and biodiversity loss in social forestry areas of Kapuas Hulu District. Source: Damayanti et al. (2021; 2023)^{14, 16}

The Government of Indonesia's Social Forestry program aims to prevent deforestation and improve local livelihoods by giving local communities the opportunity to manage forests themselves. Since 2008 more than 15 million hectares of Indonesian state forest have been allocated for indigenous or community management.³⁵ Communities that receive management rights to forest through the social forestry program must generate their own sources of income from sustainable forest management and obtaining management rights through the social forestry program does not provide additional government finance for forest management activities. Villages with social forestry areas can include forest management activities in their annual village fund budgets that are submitted to the district and central government for approval, but this would mean the amount allocated for forest management activities is not available for other village development priorities.

Two potential without-project land use scenarios for social forestry areas in the project zone are, therefore:

- i) Continuation of pre-project land use; and
- ii) Effective management of forests by village and customary communities.

No other credible and realistic without-project land use scenarios are identified. Scenario ii) is considered the least likely without-project scenario, as there are considerable barriers that would not be overcome without the project (see Sections 2.2.2 and 2.2.3).

2.2.2 Most-Likely Scenario Justification (G2.1)

The barrier analysis in Section 2.2.3 provides justification for why effective management of forests by village and customary communities would not occur without the project. Although project areas that join the project will have secured long-term management rights or legal tenure for their social forestry areas, payments for ecosystem services is one of the few sources of income that can provide the long-term finance needed for village communities to effectively manage their forests and address the drivers of deforestation and forest degradation; and project areas that have the potential to generate sufficient income from alternative sustainable forest management activities will not be included in the project.

A continuation of pre-project land use is therefore the most-likely without-project scenario for all project areas that meet the eligibility criteria in Section 2.1.15. The rates of deforestation and forest degradation in the project areas are therefore expected to reflect recent rates of deforestation and degradation of similar types of forest in Kapuas Hulu District. Average annual rates of deforestation and forest degradation between 2016 and 2020 from analysis of a time-series Government of Indonesia land cover maps for the forest types and legal designations present in the initial project areas are shown in Table 9. Under a continuation of pre-project land use, the local drivers of deforestation and forest degradation described in Section 2.2.1 are expected to be maintained or intensify over the 25-year project period as population growth in Kapuas Hulu district is around 1.4% per year (based on census data for 2010 and 2020),³⁶ so demand for land and resources is expected to grow. Road networks in Kapuas Hulu have also expanded and improved in recent years, and further expansion is expected during the project period,¹⁴ so accessibility of Social Forestry areas is expected to increase. Deforestation and forest degradation at or above the rates in Table 9 are expected to occur throughout the 25-year project period. Baseline rates of

³⁵ Ministry of Environment and Forestry Indonesia, Indicative Map and Social Forestry Areas (Peta Indikatif dan Areal Perhutanan Sosial, PIAPS Revisi VIII) Available from: <https://sigap.menlhk.go.id/peta-interaktif>

³⁶ Kapuas Hulu Regency statistics, 2022, Bureau of Statistics Kapuas Hulu Regency (Kabupaten Kapuas Hulu Dalam Angka 2022, Badan Pusat Statistik Kabupaten Kapuas Hulu)

deforestation will be reassessed every 5-years following the Plan Vivo approved approach for Estimation of Climate benefits from REDD in community-managed forests.³⁷ Any changes in government policy or other underlying causes that affect baseline rates of deforestation in Kapuas Hulu district will therefore be reflected in the climate benefits claimed by the project.

Table 9 Percentage annual deforestation in Kapuas Hulu District between years 2016 and 2020. Source: Analysis of Government of Indonesia Ministry of Environment and Forestry land cover maps from 2016 and 2020.

Legal Designation	Forest Type	Annual Deforestation (%)
Protection Forest	Secondary dryland lowland forest	0.10
	Secondary dryland hill and sub-montane forest	0.01
	Secondary dryland montane forest	0.00
	Secondary swamp forest	0.17
Production Forest	Secondary dryland lowland forest	0.33
	Secondary dryland hill and sub-montane forest	0.00
Limited Production Forest	Secondary dryland lowland forest	0.27
	Secondary dryland hill and sub-montane forest	0.17

2.2.3 Additionality (G2.2)

Regulatory Surplus

Kapuas Hulu District was declared a Conservation District in 2015, and much of the forest within current or potential future social forestry areas is designated as Protection Forest. Areas of primary forest and peatland are further protected through the National Forest Moratorium Policy. These legal designations and policies alone are insufficient to ensure effective forest management, however, as demonstrated by ongoing deforestation and degradation across most secondary forest types and legal designations (see Table 9).

Potential project areas have already been granted tenure or management rights through the Government of Indonesia social forestry program. The establishment of a social forestry area brings with it an obligation for sustainable management, but the community must develop its plans to finance that management, and newly formed village forest management institutions often lack the capacity to implement effective forest management activities and develop sustainable sources of income from forest management. The project, therefore, provides a means for communities that lack the capacity and finance for effective forest management to achieve their village forest management objectives.

Barrier Analysis

Village communities in Kapuas Hulu District face significant financial, technical, institutional, ecological, social, and cultural barriers in implementing sustainable forest management, as well as forest protection and restoration in their social forestry areas. A summary of barriers that prevent the effective management of forests by village and customary communities is provided in Table 10. These barriers were identified through participatory appraisal exercises in five potential project villages.¹⁴ Similar

³⁷ Plan Vivo approved approach for Estimation of Climate benefits from REDD in community-managed forests Version 0.2 available in Supporting Information.

assessments will be made for all project areas added to the project to ensure that similar barriers preventing effective forest management exist and other potential barriers are identified.

Table 10 Barriers to effective management of forests by village and customary communities in Kapuas Hulu District. Source: Damayanti et al. (2021)¹⁴

Type of Barrier	Description
Financial / Economic	- Limited funds for activities and infrastructure in general. - Limited funding for the procurement of tools and facilities for forest protection and restoration. - Limited capital for developing alternative livelihoods, businesses, and economic development.
Technical	- Limited knowledge, experience, and skills in forest management and sustainable land management practices. - Limited knowledge of productive economic activities, including land intensification for farming. - Insufficient understanding of land-use regulation, including submissions and proposals on village forest boundary revisions.
Institutional/Political	- Village regulations on forest conservation and prohibition of timber extraction are not in place. - Lack of institutional link between community forest management institutions and the Ministry of Environment and Forestry.
Ecology	- Soil conditions in certain areas are unsuitable for forest restoration. - Flooding affects forests and livelihood activities.
Social	- Low participation of communities in forest management and social forestry related activities. - Traditional practices of shifting cultivation, timber extraction, hunting and mining by local communities that do not follow village boundaries.
Culture	- Culture of shifting cultivation and wildlife hunting that may contradict sustainable forest management objectives. - Little experience of alternative livelihood activities.

2.2.4 Benefits to be used as Offsets (G2.2)

None of the climate, community and biodiversity benefits generated by the project will be used as offsets. Parts of the project zone overlap with the Government of Indonesia's REDD Performance Assessment Area,³⁸ but the project is not part of any other program that will generate environmental or social credits.

³⁸ Information on the Government of Indonesia's REDD Performance Assessment Area is available at <https://sigap.menlhk.go.id/peta-interaktif>

2.3 Stakeholder Engagement

A Stakeholder Engagement Plan (SEP) that is compliant with CCB Requirements was developed by PRCF Indonesia in collaboration with the initial project villages, using a template provided by TLLG.³² The sections below summarise the content of the SEP, which includes details of stakeholder engagement activities that will take place throughout the project lifetime, and an agreed FPIC Process, Grievance Mechanism and Decision-Making Process.

2.3.1 Stakeholder Access to Project Documents (G3.1)

The outputs from information gathering¹⁴ and participatory project design¹⁶ activities were shared with, and validated by, representatives of the initial project village communities during the project development process.

The full Project Description has been translated in Bahasa Indonesia³⁹ and shared by email or in hard copy relevant with national, provincial and district authorities. The translated Project Description, and a summary,⁴⁰ including the information in Section 2.1.1 to 2.1.11, has been provided to village authorities and village forest management institutions in each of the initial project villages. A hard copy of the project description summary has also been provided to village authorities in all villages that share a border with the initial project villages.

All Monitoring Reports will be translated to Bahasa Indonesia and shared by email or in hard copy with the relevant government agencies, community groups, NGOs active in the region, and organizations involved in the implementation of the project.

The Project Description and Project Description summary are available on the PRCF Indonesia webpage.⁴¹ All Monitoring Reports will also be uploaded to this site.

2.3.2 Dissemination of Summary Project Documents (G3.1)

In addition to providing copies of the Project Description summary to village authorities and Social Forestry Management Institutions in each of the initial project villages, posters, including maps and key details of the project, have been displayed in public places within the initial project villages. Community meetings have also been held to discuss details of the project with the initial village communities. These meetings were open to all members of the village communities, who were informed of the meetings at least 7 days in advance by the LPHD or Village Government.

Annual meetings will be held with relevant government agencies and representatives of each of the project villages to discuss project achievements and challenges encountered. Village meetings will be open to all community members, who will be informed of meetings at least 7 days in advance by the LPHD or Village Government.

2.3.3 Informational Meetings with Stakeholders (G3.1)

The participatory project design process that took place in the period from April 2021 to July 2023 included a series of village meetings, information gathering activities, and participatory planning activities

³⁹ Project Description in Bahasa Indonesia.

⁴⁰ Summary Project Description in Bahasa Indonesia.

⁴¹ PRCF Indonesia website available at: <https://prcfindonesia.org/category/rimba-pakai-kemuka-ari/>

in the initial project villages. A summary of these activities is provided in Table 11. Further details of all meetings are provided in the project's stakeholder consultation log.⁴² For all activities, village government representatives, other community members, and local authority representatives were informed of the events by letter from the Village Head or LPHD.

⁴² Stakeholder Consultation Log

Table 11 Summary of informational meetings and project planning activities

Dates and locations	Activity	Objective	Participants
20 Apr 2021 Nanga Betung 21 Apr 2021 Sri Wangi 22 Apr 2021 Nanga Jemah 24 Apr 2021 Tanjung 05 Nov 2021 Penepian Raya	Village meetings to present information about the potential project, including assessment of design and performance by an external auditor	Sharing information prior to requesting consent to explore the potential for a project	• Village government representatives: • LPHD representatives • Head of customary institution • Muslim community representatives • Other community representatives • PRCF Indonesia
21 Oct 2021 Tanjung 27 Oct 2021 Sri Wangi 30 Oct 2021 Nanga Betung 03 Nov 2021 Nanga Jemah 05 Nov 2021 Penepian Raya	Village meetings to request consent to explore the potential project	Requesting consent to explore the potential for a project	
25 Oct 2021 Sri Wangi 28 Oct 2021 Nanga Betung 01 Nov 2021 Nanga Jemah 06 Nov 2021 Penepian Raya 15 Dec 2021 Tanjung	Village meetings to discuss information gathering activities and CCB requirements	Describing the purpose of information gathering activities and identifying appropriate participants	• Village Government representatives • Village council representatives • Customary institution representatives • LPHD representatives • Other community representatives • PRCF Indonesia
26-27 Oct 2021 Sri Wangi 29-30 Oct 2021 Nanga Betung 01-03 Nov 2021 Nanga Jemah 06 Nov 2021 Penepian Raya 16 Dec 2021 Tanjung	Focus group discussions and participatory activities to describe context of the villages	Gathering information to describe the context of the project area	

Dates and locations	Activity	Objective	Participants
26 Jun 2022 Tanjung 27 Jun 2022 Nanga Betung 28 Jun 2022 Sri Wangi 29 Jun 2022 Nanga Jemah 1 Jul 2022 Penepian Raya	Village meetings to request consent to pursue project development	Present and discuss information gathered on project context, and the proposed project design process, and request consent to pursue project development.	• Village Government representatives • Village council representatives • Customary institution representatives • LPHD representatives • Other community representatives including women and youth • PRCF Indonesia • TFCA Kalimantan
19-21 Nov 2022 Nanga Jemah 21-23 Nov 2022 Sri Wangi 23-25 Nov 2022 Nanga Betung 25-28 Nov 2022 Tanjung 29-30 Nov 2022 Penepian Raya	Annual work plan development meetings	Discussion, drafting and ratification of annual work plans for social forestry areas	• LPHD representatives • Business group representatives • BPD representatives • Representatives of land owners in social forestry areas • Other community representatives • District government representatives • PRCF Indonesia
30 Aug 2022 Putussibau 29 Nov 2022 Putussibau 12 Mar 2023 Putussibau	Project planning workshops with local authorities	Discuss project design carried out and plans for project development	• LPHD representatives from 5 initial project areas • Village government representatives from 5 initial project areas • BPD Representative • KPH Kapuas Hulu Selatan regional task management unit • PRCF Indonesia
11 Feb 2023 Nanga Betung 15 Feb 2023 Sri Wangi 19 Feb 2023 Nanga Jemah 26 Feb 2023 Tanjug 2 Mar 2023 Penepian Raya	Village meetings to discuss project design activities	Describing the purpose of project design activities and identifying appropriate participants	• Sub District government representative • Village government representative • Customary institution representatives • LPHD representatives • Resource user group representatives • Business group representatives • Women representatives • Other community members • PRCF Indonesia • TLLG
11-14 Feb 2023 Nanga Betung 16-18 Feb 2023 Sri Wangi	Participatory project design activities	Environmental and social impact assessment, development of Theory of Change, and Stakeholder Engagement Plan	

Dates and locations	Activity	Objective	Participants
19-20 Feb 2023 Nanga Jemah 27-28 Feb 2023 Tanjung 3-5 Mar 2023 Penepian Raya			
4 May 2023 Putussibau	Annual evaluation meeting with local authorities	Review of project progress and discussion of strategies for the next year	• LPHD representatives, • Village government representative • Village council representatives • Other community representatives • District government representative • BPSKL West Kalimantan office, • KPH of South Kapuas Hulu • PRCF Indonesia
31 August Tanjung	Quarterly monitoring meeting	Review of project progress and discussion of strategies for the next quarter	• LPHD representatives, • Village government representative • Village council representatives • PRCF Indonesia
25 Sep 2023 Nanga Betung 26 Sep 2023 Sri Wangi 27 Sep 2023 Nanga Jemah 2 Oct 2023 Tanjung	LPHD Regular Meeting	Review of project progress and discussion of strategies for the next month	• LPHD representatives, • Village government representative • Village council representatives • Customary leader • Community representatives • PRCF Indonesia

2.3.4 Community Costs, Risks and Benefits (G3.2)

During village meetings, prior to requesting consent to explore the possibility of developing a project in each of the initial project villages (see Section 2.3.3), a briefing providing details of the project proponent, Rimba Collective, proposed project, potential risks and mitigation measures, and responsibilities of the LPHD and PRCF Indonesia was presented. A printed summary of the information presented was shared in a Project Information Disclosure Sheet.⁴³

Potential benefits of the project to members of the village communities were then discussed with all community groups during the participatory development of the project's Theory of Change and activity plan, and potential costs and risks were assessed in an Environmental and Social Impact Assessment (ESIA).¹⁶ The main risks and opportunity costs identified are summarized in Sections 2.1.12 and 2.1.13. The results of the ESIA were discussed with members of the initial project village communities, to identify mitigation strategies to incorporate into the project activity plan.

Potential costs, risks and benefits to the communities will be discussed in all project villages prior to requesting consent to implement the project, following the FPIC Process that was agreed by the initial project villages.

2.3.5 Information to Stakeholders on Validation and Verification Process (G3.3)

The process for CCB validation and verification was first discussed with the initial project village communities in April 2021 during village meetings in each village (see Section 2.3.3), when a handout providing a summary of the information presented was shared to participants in a Project Information Disclosure Sheet.⁴³ This information has been re-iterated in subsequent village meetings throughout the project design process. A final briefing with community groups will be carried out in each project village at least one month prior to each site visit by an auditor.

Validation and verification processes were explained orally to village governments, members of LPHD, and representatives of the different village interest groups during LPHD meetings and at other opportunities, such as TFCA quarterly coordination meetings held in each of the project villages receiving TFCA funding (all but Penepian Raya) (for an explanation of TFCA see 55 in Appendix 1).

Information on the validation and verification process, including details of the review of the Project Description and a site visit by an independent auditor, has been shared in periodic meetings with the relevant government authorities (see Section 2.3.3), and all relevant government authorities will be informed of each validation or verification site visit by email or letter at least one-month prior to the visit.

2.3.6 Site Visit Information and Opportunities to Communicate with Auditor (G3.3)

For details of how communities and other stakeholders will be informed of auditor site visits, see Section 2.3.5. Prior to any site visits, the project proponent will communicate with the auditor to determine their needs for consultation with communities and other stakeholders and their representatives. The project proponent will assist the auditor by arranging meetings with community members and with relevant government authorities in their district or regional offices. During the site visit, the auditor will be free to interact with all members of the village communities, and other stakeholders they encounter.

⁴³ Project Information Disclosure Sheet in Bahasa Indonesia

2.3.7 Stakeholder Consultations (G3.4)

PRCF Indonesia has worked in close collaboration with the initial project communities throughout the development of the project following a participatory design process assisted by The Landscapes and Livelihoods Group (TLLG), which included the following project design activities in each village:

- Information gathering to describe the local context, identify local drivers of deforestation and forest degradation, and suggest activities that could be used to address them, following participatory approaches,¹⁴ including:
 - Stakeholder Analysis
 - Problem Tree Analysis
 - Threat Assessment
 - Barrier Analysis
 - Livelihood and Socioeconomic Surveys
 - Participatory Land Use Mapping
 - Participatory Biodiversity Assessment
- Participatory project design activities in collaboration with the village communities,¹⁶ including:
 - Stakeholder Engagement Plan Development
 - Theory of Change Development
 - Environmental and Social Impact Assessment
 - Activity Plan Development

A summary of the activities carried out is provided in Table 11. The participatory project development approach was designed to ensure that the village communities that hold the management rights to the Social Forestry areas were fully involved in the scoping and design of the project and have a full understanding of their roles and responsibilities in the project. This is expected to help ensure that the project benefits the communities and will receive their long-term support.

Levels of involvement of different stakeholders during project design, identified through the process described in Section 2.1.6, are summarized in Table 12.

Table 12 Summary of levels of involvement of stakeholders in project design process

Type of Stakeholder	Level of Involvement			
	Communication	Consultation	Collaboration	Approval
National Government	✓			
Provincial Government	✓	✓		
Regional Government	✓			
Village Government	✓	✓	✓	✓
Community Groups	✓	✓	✓	✓
Civil Society Organizations	✓			

2.3.8 Continued Consultation and Adaptive Management (G3.4)

The project's Stakeholder Engagement Plan provides details of how different stakeholders are involved in project implementation and decision making. The levels of involvement of different stakeholders during

project implementation, identified through the process described in Section 2.1.6, are summarized in Table 13.

Table 13 Summary of levels of involvement of stakeholders in project implementation

Type of Stakeholder	Level of Involvement			
	Communication	Consultation	Collaboration	Approval
National Government	✓			✓
Provincial Government	✓	✓		
Regional Government	✓	✓	✓	
Village Government	✓	✓	✓	✓
Community Groups	✓	✓	✓	✓
Civil Society Organizations	✓			

Monthly progress meetings, quarterly monitoring meetings and annual review meetings are held with LPHD members, local government and community representatives to discuss project progress, challenges, and follow-up activities for the next term. Village facilitators and other members of the project team also regularly visit the project villages and are available to receive feedback from community members.

Representatives of project affected people in neighboring villagers are invited to participate in project meetings in relevant project villages and visits by LPHD together with staff of PRCF Indonesia are made to these villages to consult on project impacts.

All inputs received from the LPHDs, the broader village communities, and other stakeholders are considered by PRCF Indonesia in developing and implementing project activities. All plans are presented for validation and approval to the LPHD before they are implemented, following the decision-making process summarized below:

- PRCF Indonesia requests the Village Government to invite representatives from village interest groups, including women and marginalised or vulnerable groups, to participate in stakeholder identification and analysis activities;
- PRCF Indonesia ensures and that there are plans for appropriate levels of engagement in project development and implementation activities (see Section 2.1.6);
- PRCF Indonesia advises on the selection of stakeholder representatives to ensure the selection process is open to all stakeholder group members including women and marginalised or vulnerable groups (The process for selection involves consideration of potential stakeholder representatives at a meeting organized by PRCF Indonesia and the LPHD. An invitation is then sent by the Village Head to individuals considered capable of representing each stakeholder group);
- Stakeholder consultations and participatory planning activities are conducted at times (Tuesdays and Fridays in some villages, as people return to the village on these days; sometimes during the day, sometimes during the night, to maximise participation) and locations (usually in the centre of the village, but sometimes in hamlets (*dusun*) that are accessible to all stakeholders), taking into account the availability of women and marginalised or vulnerable groups to attend these activities;
- PRCF Indonesia ensures that invitations to participatory planning and decision-making activities are communicated to all relevant stakeholders, with consideration of appropriate means of

communication for women and marginalised or vulnerable groups (e.g. invitations may be given during household visits or to the members of women's groups)

- Facilitators elicit inputs from all participants in participatory planning and decision-making activities, e.g. through directed questions and focus group discussions, with particular attention to women and marginalised or vulnerable groups that may be less likely to contribute their views in group activities.

2.3.9 Stakeholder Consultation Channels (G3.5)

Legitimate representatives of all stakeholder groups involved in consultations and participatory processes were identified in consultation with the initial project village communities.¹⁶ Where groups did not have an existing representative that was chosen through an established process, groups were encouraged to select representatives who could act on their behalf. Representatives of each stakeholder group are listed in the project's stakeholder engagement plan.³²

The participatory design, stakeholder engagement and FPIC processes followed during the project development process involve a high level of information sharing and opportunities for discussion and consideration of options by the participating communities and other stakeholders. The minimum requirements for information sharing ahead of key decisions in the project development phase are summarized in Table 14. All information is shared in written summaries and verbal presentations, and decision makers are given time to consider the information and discuss it with and receive feedback from the groups they represent, before being asked to make a decision. Further details of the project's FPIC process are provided in the stakeholder engagement plan.³²

Table 14 Minimum information requirements for FPIC

Decision	Decision Makers	Information Shared
Whether to explore potential for development of a project facilitated by PRCF Indonesia	Village Government, BPD, Hamlet Head, Village and Hamlet Traditional Administrators, LPHD, Women's groups, Community Empowerment Institutions, Religious leaders and Community leaders	Project Information Disclosure ⁴³ summarising: • Project proponent profile • Potential project activities • Potential project benefits • Potential risks • Roles and responsibilities • Project design process • Results-based finance opportunities • Initial grievance mechanism
Whether to engage in project development	Holder of rights to the project area; Community members that use the Social Forestry area;	• Project Concept Note⁴⁴ • Project design plan
Whether to implement the project	Other project affected people e.g. members of neighboring communities that use the Social Forestry area.	• Project Description document and summary

⁴⁴ Rimba Pakai Kemuka Ari Project Concept Note

2.3.10 Stakeholder Participation in Decision-Making and Implementation (G3.6)

Participatory planning activities enable input from a wide range of participants in decisions relating to the design and implementation of the project (see Sections 2.3.7 and 2.3.8). Measures in place to enable effective participation of all stakeholders include:

- Through consultation with village leaders and the LPHD, ensuring that all stakeholders, including women and marginalised or vulnerable groups, are included in stakeholder identification and analysis activities, and that there are plans for appropriate levels of engagement in project development and implementation activities (see Section 2.1.6). Each village thus has its own unique composition of stakeholder representatives. This, for example, includes a representative of NTFP collectors in Penepian Raya, a representative of Kindergarten Teachers in Nanga Betung, Nanga Jemah, and Penepian Raya, and a representative of the Church Administrator in Tanjung;
- Ensuring that selection of stakeholder representatives is open to all stakeholder group members including women and marginalised or vulnerable groups;
- Conducting stakeholder consultations and participatory planning activities at times and locations that are accessible to all stakeholders, with consideration of specific needs for women and marginalised or vulnerable groups (see Section 2.3.8);
- Ensuring that invitations to participatory planning and decision-making activities are communicated to all relevant stakeholders, with consideration of appropriate means of communication for women and marginalised or vulnerable groups (see Section 2.3.8);
- Ensuring that facilitators solicit input from all participants in participatory planning and decision-making activities, with particular attention to women and marginalised or vulnerable groups that may be less likely to contribute their views in group activities, through directed questions and focus group discussions.

2.3.11 Anti-Discrimination Assurance (G3.7)

PRCF Indonesia has adopted a Code of Conduct⁴⁵ to ensure that they are not involved in, or complicit in any form of discrimination. Organizations contracted by PRCF Indonesia to assist with project design and implementation are also required to follow this Code of Conduct, which includes the following anti-discrimination clause.

“3.3.1. Anti-Discrimination and Equality Opportunities

The YPRCF Indonesia values Diversity and employs and partners with individuals and organizations from a diverse range of backgrounds, cultures, and races. The YPRC Indonesia is committed to an open, inclusive, and Discrimination-free workplace both within the YPRC Indonesia and among partners involved in projects with YPRC Indonesia and in particular is active in ensuring women and vulnerable and/or marginalized people, are given a fair chance to be involved in project activities.

Where positions with the YPRC Indonesia itself or within projects related to working with local communities, preference is given for people from those directly implicated communities where there is recognized capability and experience for fulfilling the role and requirements of the

⁴⁵ PRCF Indonesia Code of Conduct

position. The YPRC Indonesia will actively advertise those positions within those communities as part of the recruitment process.

The YPRC Indonesia is dedicated to promoting an accessible and inclusive workplace where all reasonable accessibility requirements and requests will be considered and, where reasonably possible, accommodated.

Yayasan PRC Indonesia representatives must not engage in any Discrimination including, but not limited to, the following:

- i. Refusing to hire or promote YPRC Indonesia representatives based on any personal characteristics that are not relevant to the requirements of the role;*
- ii. Providing warning or terminating the contract of YPRC Indonesia representatives based on any irrelevant personal characteristics;*
- iii. Refusing to provide reasonable accommodations for those YPRC Indonesia representatives with disabilities;*
- iv. Refusing to excuse YPRC Indonesia representatives for documented, medically necessary appointments related to a personal characteristic.”*

To ensure that the Code of Conduct is implemented, the PRCF Indonesia Human Resource Manager presents and explains it to each new staff. New staff sign the PRCF Policies Affidavit, recognizing they confirm, have received, read and fully understand the content and meaning of, and will abide during their employment by, PRCF's Code of Conduct Policy, Antibribery and Corruption Policy, and Sexual Harassment Policy.

LPHD members, the Village Head, the Village Council, and village customary leaders in the initial project villages have also adopted these policies on anti-discrimination and equal opportunities.⁴⁶ New LPHD members are required to indicate their understanding of and willingness to abide by these policies by signing statements before they sign their work contracts.

LPHD disseminate these policies during meetings with the district government and other stakeholders. Policies are printed and hard copies distributed to stakeholders. The policies are also posted in common areas such as the village government office, information boards, etc. LPHD representatives and the PRCF Indonesia village facilitator will visit marginalized/vulnerable households to update them on LPHD activities and policies.

2.3.12 Feedback and Grievance Redress Procedure (G3.8)

The project's grievance redress mechanism (GRM) enables grievances to be submitted at village level as well as at project level (i.e. directly to PRCF Indonesia). When PRCF Indonesia handles grievances, it follows its Standard Operating Procedure for grievance handling, described in the document “MEKANISME PENANGANAN KELUHAN Pada Pengelolaan Program di Yayasan PRCF Indonesia.” When the LPHD handles grievances, it follows the same procedures. Timelines are set for each step in the grievance handling process. A description of the project's GRM has been uploaded to the project's website and is summarized below.

Steps

- **Receiving** – At village level, grievances may be submitted by members of the local community, village government, other organizations involved in project implementation, media and other

⁴⁶ Signed adoption agreements of anti-discrimination and equal opportunities policies available in the Supporting Information.

stakeholders / interest groups. Grievances can be submitted directly to the LPHD or to the LPHD through the Village Government or Village Council (BPD). At project level, grievances may be submitted by community members, other organizations involved in project implementation, government bodies, media and other stakeholders / interest groups to PRCF Indonesia. Grievances submitted to PRCF Indonesia may either be submitted to the project's Village Facilitator or to the Project Manager. Several channels are provided for submitting grievances at project level, including via a phone number, postal address, Email and face-to-face meetings.

- **Recording**– All grievances received are recorded in the grievance report form. A copy of the grievance form is provided to the complainant and to the LPHD Head and/or PRCF Indonesia Management. The details of the grievance are entered into the project's grievance register, which is updated during each step of the grievance handling.
- **Assessing** – The LPHD and/or PRCF Indonesia will assess the grievance to determine whether it is a legitimate complaint, and inform the complainant of the outcome of the assessment.
- **Planning** – For legitimate grievances, a resolution plan and timeline for resolution will be developed by the LPHD or PRCF Indonesia. For grievances handled at village level, the LPHD will send the resolution plan to PRCF Indonesia Management for endorsement.
- **Resolution** – This activity consists of submitting suggestions for settlement to related parties, monitoring, providing information to complainants, reporting follow-up and archiving. All complaints received and recorded by the Complaints and Problems Handling Section of the LPHD and their handling will be described in a monthly progress report. If the resolution decision is accepted by both parties, the case is closed and is recorded as such in the register, and the complainant is formally notified of case closure. Monitoring is conducted to ensure activities are in line with any agreement reached with the complainant. If an agreed resolution cannot be reached through village level complaint handling, it is forwarded to PRCF Indonesia for further handling. If a resolution agreeable to both parties cannot be found, the complaint is escalated to mediation or arbitration.
- **Mediation** – PRCF Indonesia may suggest private mediation to the complainant to resolve the complainant using a mediator acceptable to both parties. The mediation will follow the mechanism for private mediation set out in Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution. If the complainant chooses to take the grievance to the court, the court is required to enforce a period of mandatory mediation (court-annexed mediation) and may appoint a court-approved mediator for this purpose. If the court-annexed mediation is successful, the judge will endorse the settlement agreement, which will then become enforceable.
- **Arbitration** – If the complainant is a legal entity, the complainant may choose to have the complainant considered through arbitration. In Indonesia, arbitration is a means of settling civil disputes outside the general courts based on an arbitration agreement entered into writing by the disputing parties. PRCF Indonesia will endeavour to identify an arbitrator who is agreeable to the complainant. If this is not successful, an arbitrator will be appointed by the Chief Justice of the District Court. Arbitration will follow the mechanism set out in Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution.

2.3.13 Accessibility of the Feedback and Grievance Redress Procedure (G3.8)

The grievance redress procedure is summarized in Section 2.3.12 and full details are included in the project's stakeholder engagement plan.³² The existence of the grievance redress mechanism is also explained in the Project Description Summary. The procedures have been explained in community

meetings in each village, and a copy is posted in public places, such as the Village Office and LPHD Office.

All grievances received and details of the project's response are discussed in annual meetings with relevant government agencies and in each of the project villages, and a copy of the project's grievance register, with the identity of complainants anonymized, is available on the PRCF Indonesia website.

2.3.14 Worker Training (G3.9)

The project provides training to LPHD members based on needs. This includes training relating to administration, finance, IT, SMART Patrolling, and meeting facilitation. To ensure their skills are not lost, LPHD members are asked to practice them during their work and identify any difficulties that need to be addressed through further training and practice.

Training courses for project workers in all villages are planned throughout the project's lifetime. The capacity of project workers will be reviewed annually through self-assessment and supervisors' reports, and additional training will be provided as necessary. A training report is compiled for every training and kept on file in the PRCF Indonesia office. The training reports contain the training agenda, training materials, photos of activities, and list of participants.

2.3.15 Community Employment Opportunities (G3.10)

The PRCF Indonesia Code of Conduct includes the following clause related to equal opportunities when employing project workers.

"3.3.1. Anti-Discrimination and Equality Opportunities

The YPRC Indonesia values Diversity and employs and partners with individuals and organizations from a diverse range of backgrounds, cultures, and races. The YPRC Indonesia is committed to an open, inclusive, and Discrimination-free workplace both within the YPRC Indonesia and among partners involved in projects with YPRC Indonesia and in particular is active in ensuring women and vulnerable and/or marginalized people, are given a fair chance to be involved in project activities.

Where positions with the YPRC Indonesia itself or within projects related to working with local communities, preference is given for people from those directly implicated communities where there is recognized capability and experience for fulfilling the role and requirements of the position. The YPRC Indonesia will actively advertise those positions within those communities as part of the recruitment process."

To ensure that community members, including women and vulnerable and/or marginalized people are given a fair chance to fill positions for which they can be trained, adverts for project workers are displayed in all project villages, and it is clearly stated what training can be provided and that applications from women and vulnerable and/or marginalized people are encouraged. 1 village facilitator has been recruited from the initial project villages, and 2 other village facilitators are from adjacent villages (all men).

The project provides full-time employment opportunities with PRCF Indonesia and 10 LPHD staff for each of the 5 initial project villages, and part-time employment opportunities for 20 patrol team members for each of the 5 villages. The LPHDs have adopted anti-discrimination and equal opportunity policies for the positions recruited by them, i.e. LPHD staff and patrol team members (see Section 2.3.11).

2.3.16 Relevant Laws and Regulations Related to Worker's Rights (G3.11)

A review of national and local laws and regulations in Indonesia ⁴⁷ listed 84 regulations relevant to worker's rights. The main relevant laws and regulations covering worker's rights include:

- Law No. 1 of 1970 on Work Safety
- Law No. 23 of 2002 on Child Protection
- Law No. 13 Year 2003 of Manpower
- Law No. 40 of 2004 on the National Social Security System
- Law No. 24 of 2011 on Social Security Administering Bodies
- Law No. 8 of 2016 on Persons with Disabilities
- Law Number No. 11 Year 2020 of Job Creation
- Law Number 1 of 2023 on the Criminal Code
- Government Regulation No. 50 of 2012 on Implementation of Occupational Safety and Health Management Systems.
- Government Regulation No. 34 Year 2021 of the Use of Foreign Workers
- Government Regulation No. 35 Year 2021 of Work Agreements for Certain Time, Outsourcing, Working Time and Rest Time, and Termination of Employment
- Government Regulation No. 36 Year 2021 of Wages
- Government Regulation No. 37 Year 2021 of the Implementation of the Job Loss Guarantee Program

The Legal Analysis identified the following obligations and prohibitions related to worker's rights that will be upheld by all participants in the project. The measures in place to ensure the project meets these requirements are summarized below under each obligation/prohibition.

a. Obligations of the project proponent:

- Make company rules and the company rules must be legalized by the authorized official/manpower agency
 - PRCF Indonesia will apply to Dinas Ketenagakerjaan for authorization of company rules.
- Make a written work agreement
 - Following PRCF Indonesia General Administrative Guidance,⁴⁸ all staff must have written work contracts.
- Pay wages with a wage structure and scale in accordance with statutory provisions:
 - PRCF Indonesia follows government regulations establishing wage structure and scale.
- Implementing an occupational safety and health management system (OHS/SMK3)
 - PRCF Indonesia's occupational safety and health management system is described in the General Administrative Guidance.
- Provide hygiene facilities in the workplace and a healthy work environment

⁴⁷ Project Legal Analysis (in Bahasa Indonesia)

⁴⁸ PRCF Indonesia General Administrative Guidance included in the Supporting Information.

- Office facilities are cleaned regularly by paid cleaning staff and offices are equipped with sanitary latrines.
- Provide OHS/K3 facilities
 - Office buildings and cars are equipped with fire extinguishers, hand sanitizer and soap are provided in toilets, masks are available in the offices, offices and patrols teams are equipped with first aid.
- Provide OHS/K3 personnel
 - Patrol training includes training on how to handle accidents in the forest.
- Providing a place for breastfeeding and/or expressing breast milk
 - There is sufficient space in PRCF Indonesia offices to allow breastfeeding and/or expressing breast milk in privacy.
- Enrol workers in social security programs
 - Accident insurance is provided for all project staff.
- Pay National Insurance (BPJS) contributions in accordance with the provisions of the applicable laws and regulations
 - PRCF Indonesia pays contributions to the health scheme and is planning from 2024 to pay contributions to the occupation insurance scheme of the BPJS.
- Provide personal protective equipment
 - Motorcycle helmets and lifejackets are provided/used for work related travel, uniforms are provided to patrol teams, and helmets, masks, boots and protective clothing are provided for fire control teams.
- Carry out competency improvement for workers
 - Training programs have been established for PRCF Indonesia staff, LPHD, patrol teams, and forest fire control teams.
- Provide time off and leave
 - The PRCF Indonesia Personnel Employment Guideline⁴⁹ sets out work days and annual leave, and provide for compensatory leave when work is conducted on weekends or holidays.
- Provide protection for women workers and children
 - PRCF Indonesia Personnel Employment Guideline⁴⁹ protects women and children from bullying, sexual harassment and discrimination. Under the Guideline, mothers are provided with three months maternity leave and girls/women may take menstruation leave.
- Employ at least 1% of persons with disabilities from the total number of workers.
 - PRCF Indonesia policy on Anti-Discrimination and Equal Opportunities gives the same opportunity to every individual for employment that meets the work requirements, including persons with disabilities.
- Implement provisions regarding working time
 - PRCF Indonesia staff submit work time sheets that show hours, location and content of work conducted.
- If the project operator employs workers during overtime work, it is obligatory to: i) Pay overtime wages, ii) Give the opportunity to rest sufficiently, iii) Provide food

⁴⁹ PRCF Indonesia Personal Employment Guideline included in the Supporting Information.

and drink of at least 1,400 (one thousand four hundred) calories if overtime work is carried out for 4 (four) hours or more.

- i) Compensatory leave is provided for overtime work, ii) Breaks are taking regularly (Muslim staff break for prayer twice during normal working hours), iii) Refreshments are provided each day in the PRCF Indonesia offices, including during periods when overtime will reach or exceed four hours.
- Pay overtime wages, provided that i) For the first overtime hour of 1.5 (one point five) times the hourly wage, and for each subsequent overtime hour, it is 2 (two) times the hourly wage
 - Compensatory leave is provided for overtime work.
- Reporting of job vacancies
 - Vacancies for professional positions are advertised.

b. Obligations when hiring foreign workers:

- Have a document on the Plan for the Use of Foreign Workers (RPTKA)
- Registering foreign workers in the social security program
- Pay the Foreign Workers Use Compensation Fund (DPTKA) for each foreign workers employed
- Pay severance pay and/or award money, and compensation money, in the event of termination of employment (PHK)

The PRCF Indonesia Personnel Employment Guideline⁴⁹ requires that PRCF Indonesia acquires a permit from the relevant authority before hiring a foreign worker. The Guideline states that PRCF Indonesia can hire a foreign worker within a specified time frame following Indonesian regulations, explains that PRCF Indonesia will assist the worker in acquiring a temporary residence permit, and explains that a counterpart will be assigned to the foreign worker to facilitate knowledge transfer.

c. Prohibition for project proponents:

- Employing children.
- Employ pregnant women who, according to a doctor's statement, are dangerous to the health and safety of their womb and themselves if they work between 23.00 and 07.00.
- Paying wages lower than the minimum wage.
- Withhold the worker's original documents (certificates, transcripts, etc.) for any reason in the context of an employment relationship.
- Torturing, abusing or threatening workers.
- Persuading and/or ordering employees to take actions that are contrary to laws and regulations.
- Failure to pay wages at the specified time for 3 (three) consecutive months or more.
- Order workers to carry out work beyond what was agreed.
- Providing work that endangers the life, safety, health and morals of workers while the work is not stated in the work agreement.

The above prohibitions are covered by the Code of Conduct and the Personnel Employment Guideline.^{45, Error! Bookmark not defined.} The measures to ensure these and other internal policies reflecting national and local laws are implemented include:

- Informing new employees and personnel involved in project implementation of these policies, and refreshing the knowledge of current staff on these policies when their contracts are renewed;
- Developing supplementary documents related to health, safety, etc. and socializing them through trainings;
- Reflecting these policies in annual project implementation plans and supporting budgets;
- Implementing a grievance redress mechanism with the scope to handle grievances related to a failure to implement internal policies.

During the project design process, discussions were held on the rights of the personnel, and at the beginning of project implementation, all the personnel were informed of their rights and responsibilities.

2.3.17 Occupational Safety Assessment (G3.12)

To mitigate risks to worker safety that could arise due to project implementation during work to advance project implementation, Standard Operating Procedures (SOPs) related to work safety have been drafted, including Official Travel SOP, vehicle use SOP, Patrol SOPs, Forest Rehabilitation SOPs. Copies of the relevant SOPs are provided to all project workers and discussed during their induction. Adherence to the SOPs is required of all project workers. Supervisors monitor this, and additional training is provided where necessary. Occupational accident insurance is also provided to project workers. This includes LPHD staff and members of the patrol teams in each of the project villages.

2.4 Management Capacity

2.4.1 Project Governance Structures (G4.1)

The project's governance structure is described in Figure 19. Roles and responsibilities of each organization involved in project design and implementation are described below.

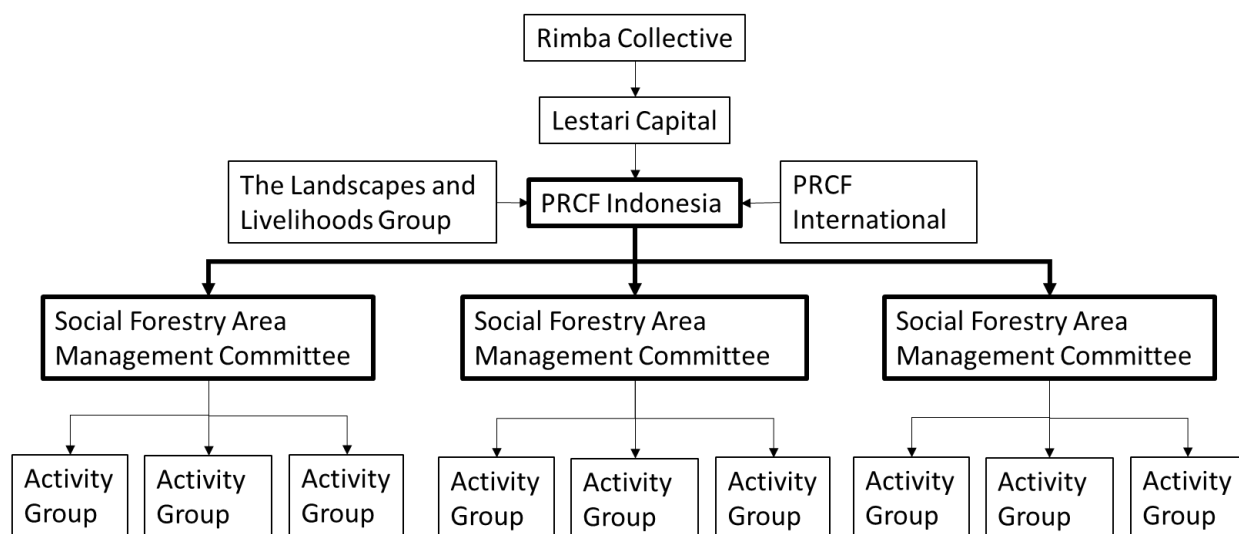


Figure 19 Project organizational structure

Rimba Collective

Rimba Collective⁵⁰ is a collaboration of leading consumer goods manufacturers connected to the agricultural commodities industry that aim to deliver on their corporate sustainability objectives over the long term and at scale, by protecting and restoring natural landscapes, and supporting people's livelihoods. Rimba Collective will provide a long-term source of finance for the project, through a results-based finance mechanism.

Lestari Capital

Lestari Capital⁵¹ is a pioneering natural capital asset management company that enables companies to deliver robust, verifiable nature-based solutions at scale. They ensure companies meet their corporate sustainability commitments and achieve a long-term, positive impact on nature, communities and climate. Lestari Capital provides the link between Rimba Collective and the project and provides support to PRCF Indonesia to meet the targets needed to secure finance for the project.

PRCF Indonesia

PRCF Indonesia⁴¹ is the project proponent. They are responsible for working with the Social Forestry Management Institutions in each village that joins the project to identify potential for a project, provide information about funding sources and secure commitment to project scoping, development and implementation following an approved FPIC process. They work with technical partners and other experts to design project activities through a collaborative process with the village communities, receive payments from Rimba Collective, and manage the project budget according to the agreed benefit sharing mechanism. They are responsible for providing the training and support needed for the social forestry area management committees and activity groups to implement their management plans and project activities, and for all project coordination and management tasks including monitoring and reporting to Verra and Rimba Collective, and contracting validations and verifications.

The Landscapes and Livelihoods Group (TLLG)

TLLG⁵² is an independent consulting company that provides technical assistance for the development and implementation of projects that contribute to climate change mitigation, while also benefiting biodiversity, ecosystem services and local livelihoods. They have provided support to PRCF Indonesia throughout the project development process and will continue to support capacity building of the PRCF Indonesia team, and with monitoring and reporting.

People Resources and Conservation Foundation (PRCF)

PRCF⁵³ is a trustee of PRCF Indonesia. They will provide technical assistance, monitoring and support with financial management of the project.

Social Forestry Area Management Committees

The Social Forestry Area Management Committees represent the rights holders to the project areas. They are therefore fully involved in the development and implementation of the project in collaboration with PRCF Indonesia. They are responsible for implementation of the social forestry area management

⁵⁰ Further information on the Rimba Collective available at: <https://rimbacollective.com/>

⁵¹ Further information on Lestari Capital available at: <https://lestaricapital.com/>

⁵² Further information on TLLG available at: <https://www.landscapesandlivelihoods.com/>

⁵³ Further information on PRCF available at: <https://prcfoundation.org/>

plans and all project activities that take place within the project villages, with support from PRCF Indonesia.

Activity Groups

Activity Groups are comprised of members of the village communities and are responsible for carrying out specific tasks related to implementation of the social forestry area management plans and project activities. Activity groups are defined based on specific needs of each project area and include forest patrol and monitoring teams, forest restoration groups, and livelihood activity groups.

2.4.2 Required Technical Skills (G4.2)

Key technical skills required to implement the project are listed below.

Stakeholder Engagement

Working closely with communities in the project villages to develop and implement the project is vital to achieve the project's objectives. Skills in relationship building, meeting facilitation, participatory planning and FPIC processes are therefore vital to the success of the project.

Socioeconomic Monitoring

To assess the socioeconomic impacts of the project requires skills in conducting household surveys, focus group discussions and participatory well-being assessment to gather and process information on socioeconomic indicators that will be tracked throughout the project lifetime.

Biodiversity Assessment

To assess the biodiversity impacts of the project requires skills in management of data and information collected by forest patrol and monitoring teams, and conducting participatory biodiversity assessment to gather and process information on biodiversity indicators that will be tracked throughout the project lifetime.

Carbon Measurement and Monitoring

To assess the climate impacts of the project requires skills in analysis of deforestation and forest degradation using land cover maps produced by the Ministry of Environment and Forestry, and ground-based surveys, applying the Plan Vivo Methodology for Estimation of Climate benefits from REDD in community-managed forests.⁵⁷

SMART Forest Patrol

Forest patrol and monitoring teams will use the Spatial Monitoring and Report Tool (SMART)⁵⁴ to record patrol activities and collect information relating to forest condition and biodiversity. Forest patrol and monitoring teams therefore require skills in the use of this application, and PRCF Indonesia need the skills to extract and process the information.

Forest Restoration

Forest restoration activities require the skills needed to plan appropriate planting designs, and carry out the planting, maintenance and monitoring activities needed to ensure their long-term success.

⁵⁴ Spatial Monitoring and Reporting Tool available at: <https://smartconservationtools.org/>

Remote Sensing and GIS

Monitoring of project impacts requires the skills needed to produce maps of land cover change within the project areas, leakage areas and reference region.

PRCF Indonesia employs 38 staff (31 male and seven female), including experienced facilitators who have received training in community engagement, socioeconomic monitoring, biodiversity assessment, carbon measurement and monitoring, SMART forest patrol, and forest restoration. The number of project proponent staff members with the required technical skills to implement the project is summarized in Table 15.

Table 15 Summary of PRCF Indonesia staff trained in key technical skills

Technical Skill	Number of Trained Staff
Stakeholder Engagement	20
Socioeconomic Monitoring	7
Biodiversity Assessment	2
Carbon Measurement and Monitoring	1 (under training)
SMART Forest Patrol	9
Forest Restoration	7
Remote Sensing and GIS	10

2.4.3 Management Team Experience (G4.2)

Members of the PRCF Indonesia project management team, their expertise and relevant experience are summarized below.

Project Director Imanul Huda, S.Hut, M.Hut

Imanul Huda holds a Masters of Forestry and has 23 years' experience as Director of PRCF Indonesia. His previous experience implementing land management and carbon projects includes leading the development of a village forest protection and restoration project certified using the Plan Vivo Standard in Nanga Lauk village, Kapuas Hulu.⁵⁵ He has also led conservation projects to protect critically endangered species, such as false gharial (*Tomistoma schlegelii*).

Project Manager Ir. Ali Hayat

Ali Hayat is a forestry graduate with 30 years' experience designing and leading projects in Indonesia promoting community empowerment through participatory rural appraisal, community-based land-use planning and forest management, livelihood creation, institutional development and capacity building.

Finance Manager Aam Wijaya, A.Md.

Aam Wijaya is a graduate of the Economic Wallstreet Institute, Jakarta and has 19 years' experience working as a financial manager on conservation and development projects.

General Manager Ir. Suhartian

Suhartian is an agriculture graduate with 10 years' experience working on community development, and an additional 11 years working for PRCF Indonesia on administration and human resource development.

⁵⁵ Plan Vivo Project Design Document Nanga Lauk: <https://www.planvivo.org/nanga-lauk>

2.4.4 Project Management Partnerships/Team Development (G4.2)

PRCF Indonesia receives technical support from the US-based People Resources and Conservation Foundation (PRCF), its technical directors, and its advisory board. They have also engaged the services of the consulting firm The Landscapes and Livelihoods Group (TLLG) to provide technical assistance and staff training in community engagement, socioeconomic monitoring, biodiversity assessment, carbon measurement, and monitoring, and project and financial management.

2.4.5 Financial Health of Implementing Organization(s) (G4.3)

PRCF Indonesia is in good financial health.⁵⁶ It has secured long-term funding from Rimba Collective to support the project, sufficient to cover the full cost of all activities over the 25-year project lifetime in the initial project areas.³³ This includes financial support to the LPHDs in each initial project village.

2.4.6 Avoidance of Corruption and Other Unethical Behavior (G4.3)

PRCF Indonesia has adopted a Code of Conduct⁴⁵ to ensure that they are not involved or complicit in any form of corruption such as bribery, embezzlement, fraud, favoritism, cronyism, nepotism, extortion, and collusion. Organizations contracted by PRCF Indonesia to assist with project design and implementation are also required to follow this Code of Conduct, which includes the following anti-corruption/bribery clause.

“3.1.6. Anti-Corruption/Bribery

The YPRC Indonesia is committed to honesty, transparency, and fairness and has zero tolerance for Bribery, including making Facilitation Payments. The YPRC Indonesia rejects Corruption in all of its forms and complies with the spirit and letter of Law No. 31 of 1999 on Corruption Eradication. YPRC Indonesia YPRC Indonesia representatives are required to:

- i. Reject Corruption in all of its forms, including Bribery, making Facilitation Payments or any Prohibited Act;*
- ii. Understand and appreciate that Bribery is unlawful and therefore strictly prohibited, regardless of jurisdiction or circumstance;*
- iii. Adopt and enforce all policies that prevent Corruption in the conduct of business;*
- iv. Ensure that no Public Official benefits financially or in any other unlawful way from the relationship with the YPRC Indonesia (or any partner or donor);*
- v. Operate with an adequate system of internal accounting controls and maintain accurate records that document relevant transactions;*
- vi. Immediately inform their line manager or any other senior member of staff if the information is discovered indicating that a Prohibited Act has been committed, has been requested or otherwise suggested by any person, including a Public Official or private individual, in connection with, in relationship with, or working for the YPRC Indonesia.*

YPRC Indonesia representatives must not:

⁵⁶ PRCF Indonesia audited financial reports for 2020, 2021 and 2022 will be made available to the Validator.

- i. *Directly or indirectly commit or attempt to commit any Prohibited Act including Bribery or making a Facilitation Payment;*
- ii. *Directly or indirectly receive a Bribe; Use their authority for personal gain; or*
- iii. *Offer, provide, or receive unlawful gifts, benefits, hospitality, advantages, courtesies, or entertainment from a Public Official where a reasonable person could interpret the offer, provision, or receipt as a Prohibited Act made in connection with the Representative's duties, status or authority.*

Hospitality is permitted under specific circumstances. Bonafide hospitality or other business expenditure to present the YPRC Indonesia or its products or services, or establish cordial relations is permitted. However, hospitality or promotional expenditure can be misinterpreted as Bribery and YPRC Indonesia representatives must keep in mind appearances and perceptions and not offer hospitality where it could be mistaken to have the intention of influencing an official to secure a business advantage, to perform a function improperly or to expedite the performance of a routine government action.

Receipt and provision of gifts, benefits, or entertainment must be notified on relevant registers kept for that purpose."

To support the implementation of the Anti-Corruption/Bribery policy, PRCF Indonesia financial officers check financial reports against evidence provided, and an independent audit is conducted annually. New staff sign the PRCF Policies Affidavit, recognizing they confirm, have received, read and fully understand the content and meaning of, and will abide during their employment by, PRCF's Antibribery and Corruption Policy.

LPHD members, the Village Head, the Village Council, and village customary leaders in the initial project villages have also adopted these policies on anti-corruption/bribery.⁵⁷ New LPHD members are required to indicate their understanding of and willingness to abide by these policies by signing statements before they sign their work contracts.

2.4.7 Commercially Sensitive Information (Rules 3.5.13 – 3.5.14)

No commercially sensitive information has been excluded from the public version of the project description.

2.5 Legal Status and Property Rights

2.5.1 Statutory and Customary Property Rights (G5.1)

Participatory land use maps for the initial project areas were generated by groups of participants from the project villages. Maps showing the location of different tenure, use, access and management rights in the initial project areas are provided in Figure 20 to Figure 24.

⁵⁷ Signed adoption agreements of anticorruption and bribery policies included in the Supporting Information.

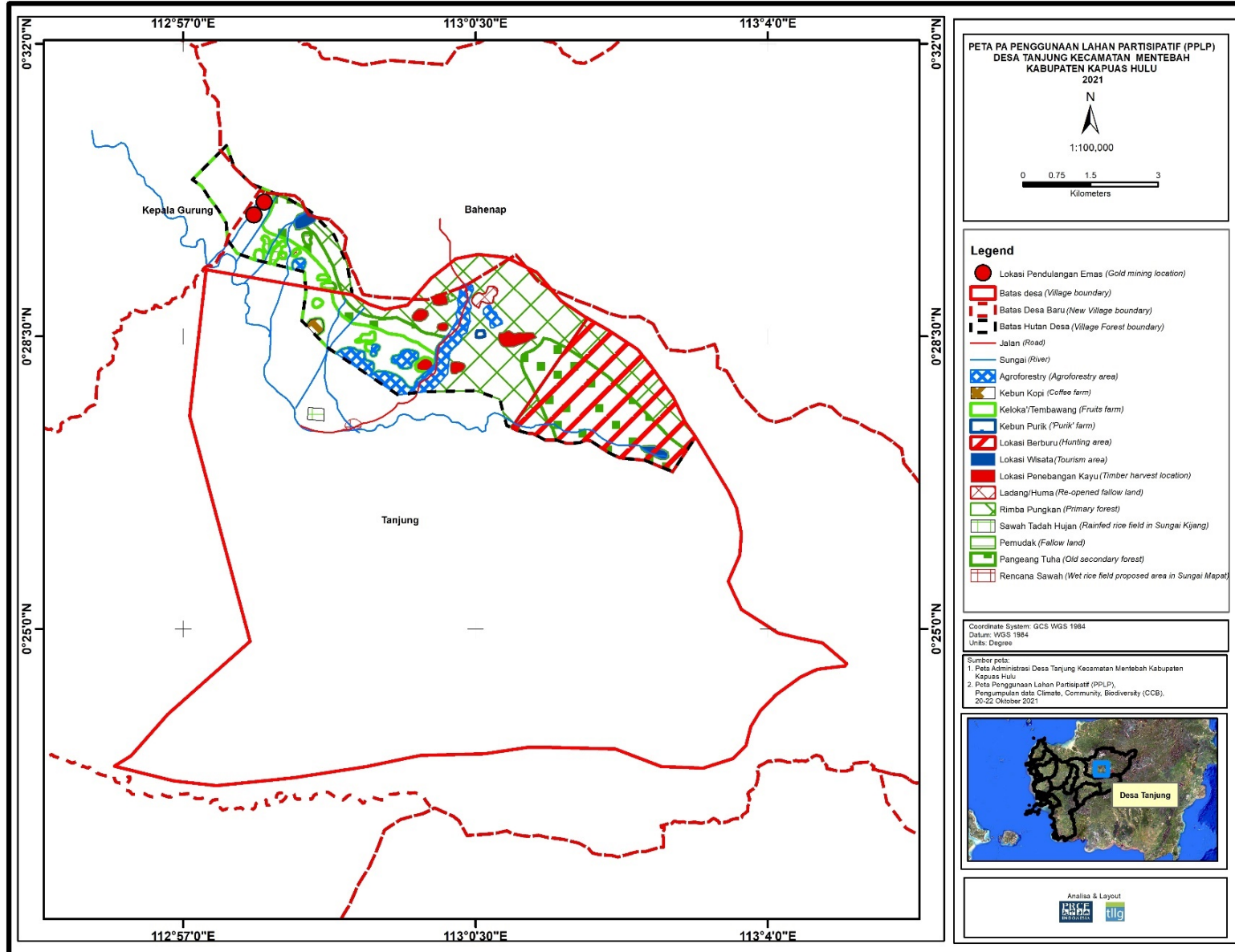


Figure 20 Digitized updated PLUM Map of Bukit Belang Village Forest, as described by FGD participants on 20 October 2021. Digitized by Yadi Purwanto, 2021.

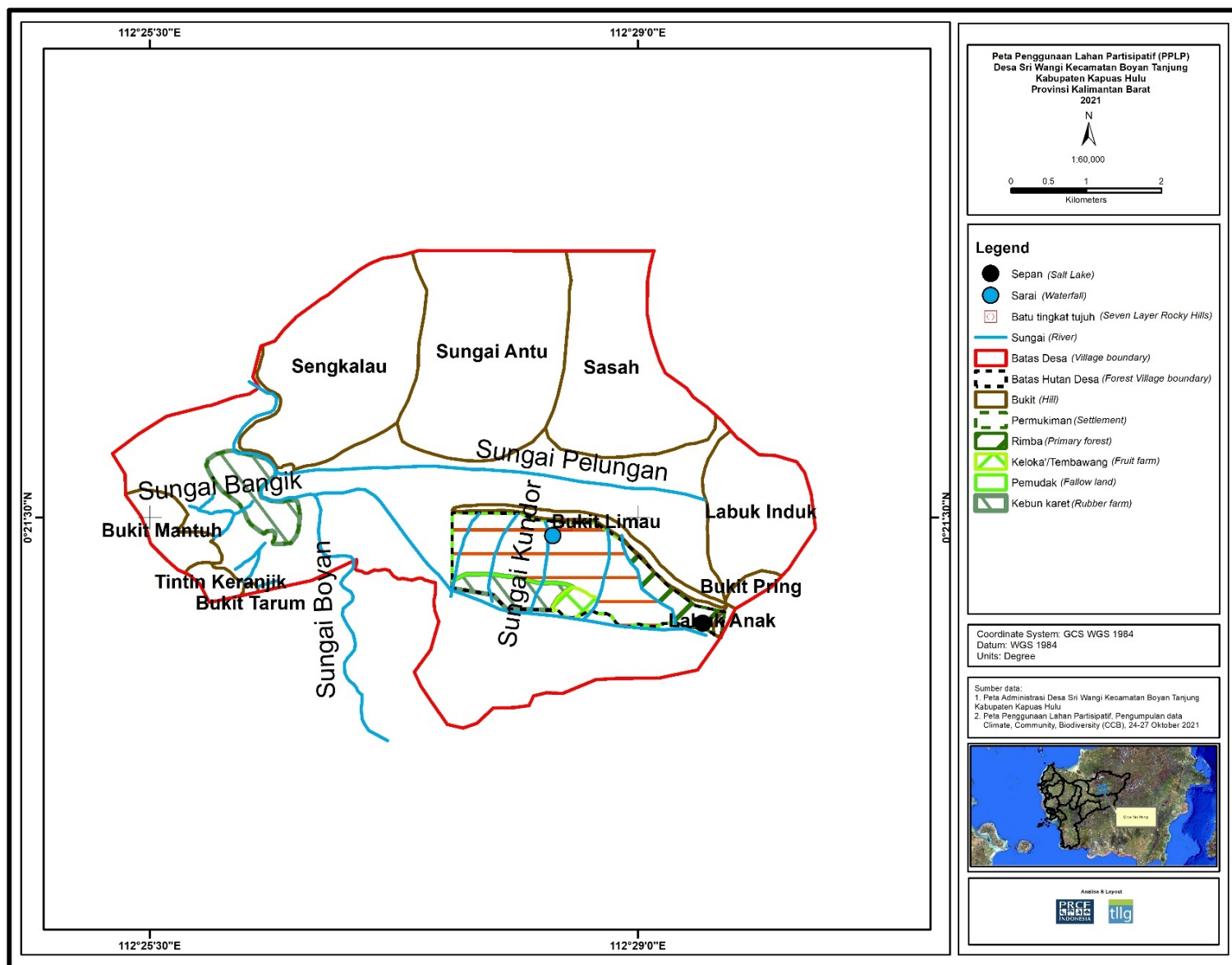


Figure 21 Digitized updated PLUM Map of Batang Tau Village Forest, as described by FGD participants on 25 October 2021. Digitized by Yadi Purwanto, 2021.

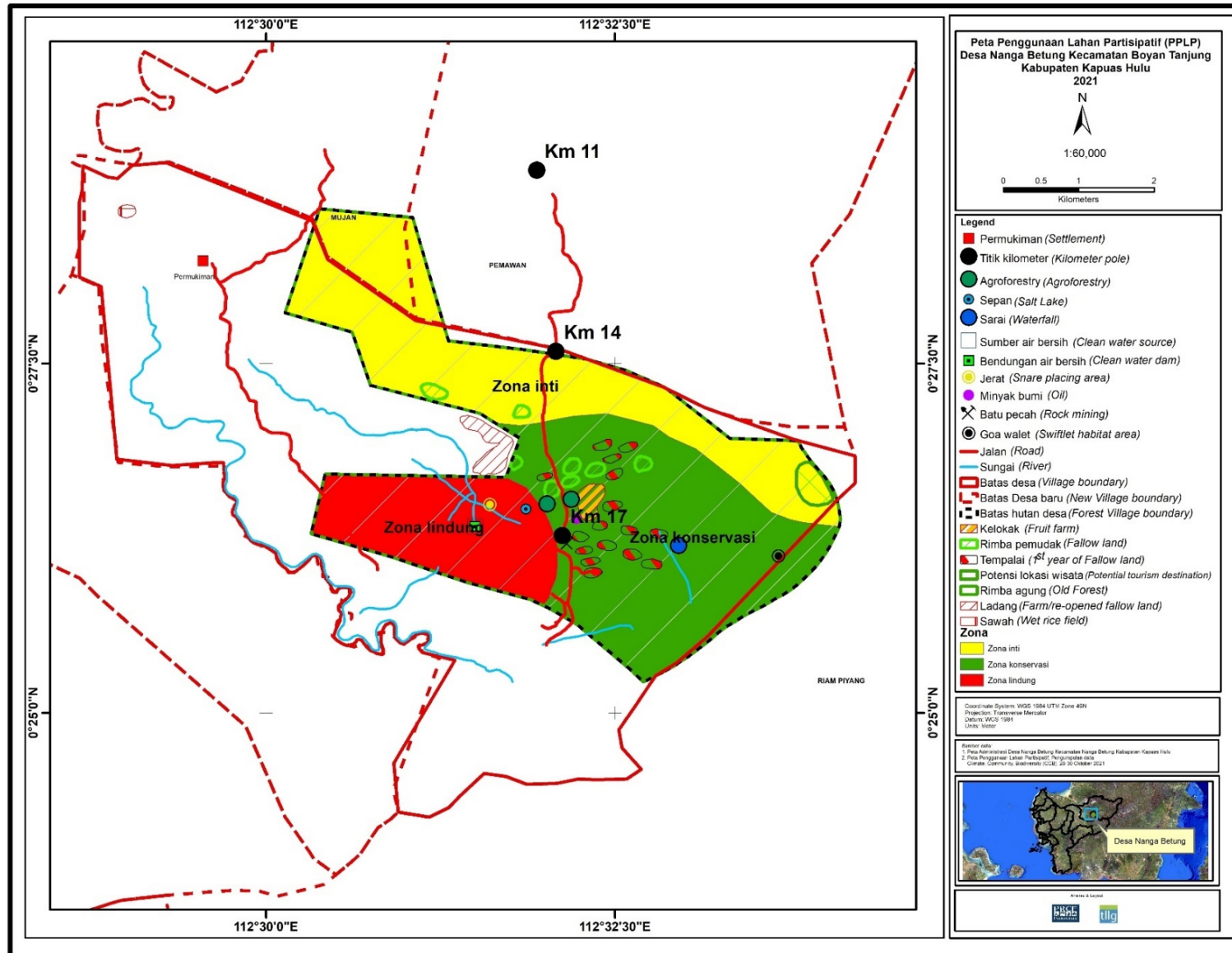


Figure 22 Digitized updated PLUM Map of Pundjung Batara Village Forest, as described by FGD participants on 28 October 2021. Digitized by Yadi Purwanto, 2021.

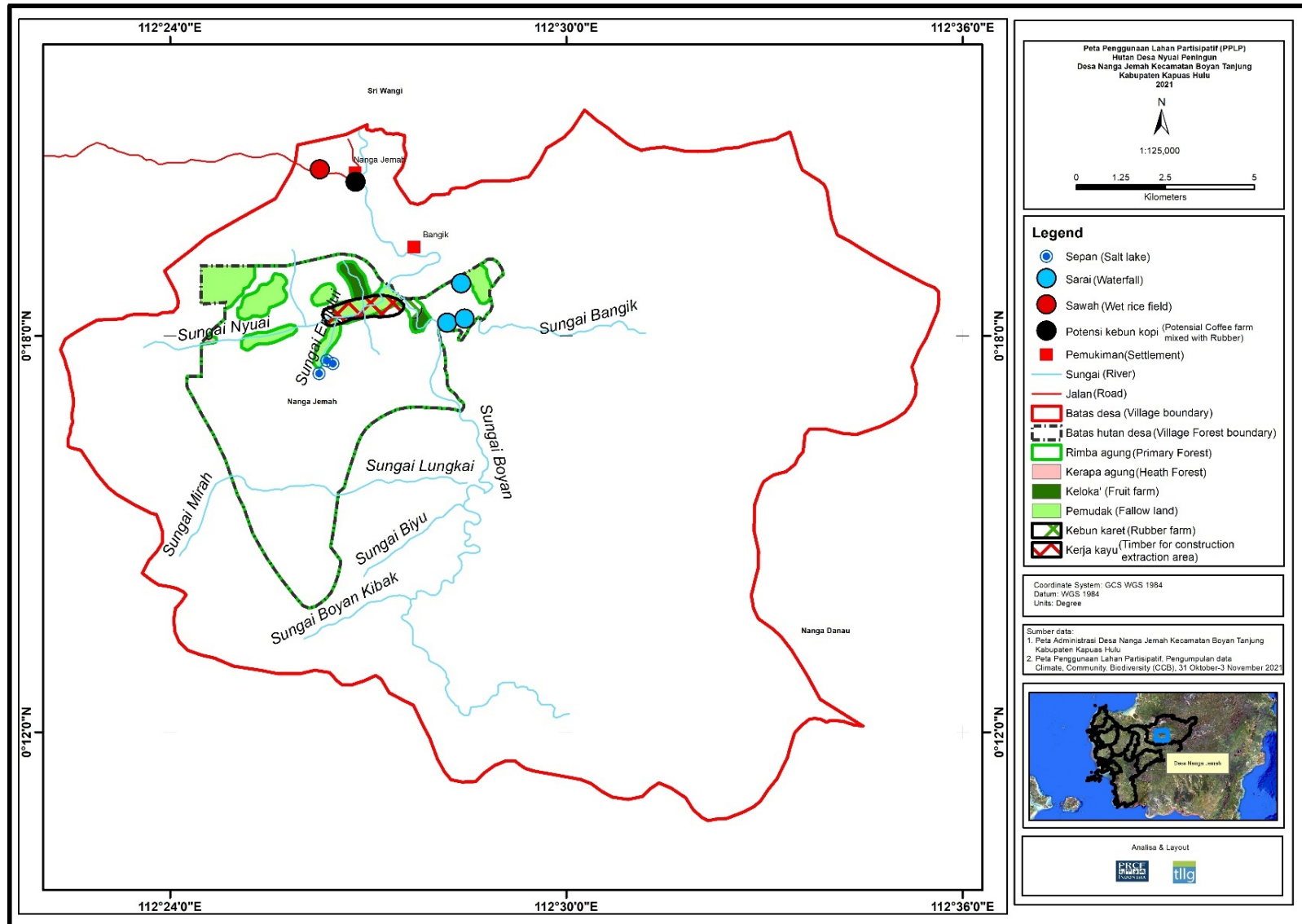


Figure 23 Digitized map of updated PLUM Map of Nyuai Peningun Village Forest, as described by FGD participants on 1 November 2021. Digitized by Yadi Purwanto, 2021.

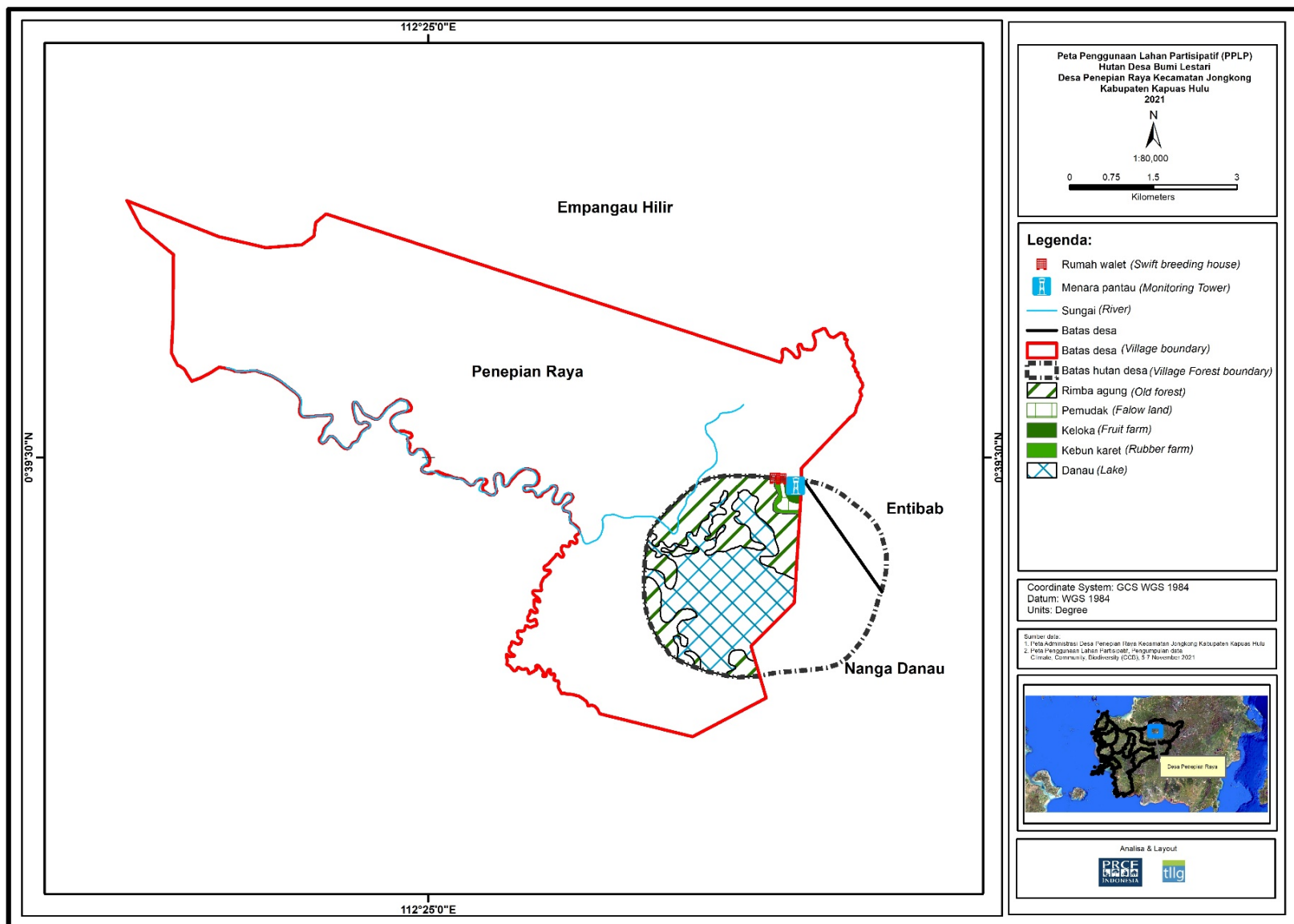


Figure 24 Digitized map of updated PLUM Map of Bumi Lestari Village Forest, as described by FGD participants on 5 Nov 2021. Digitized by Yadi Purwanto, 2021

All village or customary forests that join the project will have been granted land tenure and/or management rights through Indonesia's social forestry programme. Village Forest Management Rights (HPHD) were granted to the initial project communities through Decrees of the Minister of Environment and Forestry (see Table 1), which provide legal management rights to the Village Forests (the project area). Existing laws and regulations enacted in Indonesia require land certification to demonstrate ownership rights. Prior to the MoEF decrees that granted management rights to the initial project communities, the forest areas had been classified either as protection forest or production forest, and there was no institution to formally manage these forests. Customarily, the forest areas had been used by village communities for various livelihoods activities, such as upland rice farming (*ladang*), rubber agroforestry, wildlife hunting, agarwood collection, timber extraction, NTFP collection, and gold mining. Customary ownership rights over the lands in the forest areas were mostly claimed by farmers and gold miners for upland rice farms, rubber agroforests, and gold mining sites. For these land uses, the person who first cleared the forest and worked the land is considered the customary owner.

The customary land rights within the initial project areas can be divided into three categories: i) Individual property rights for upland rice farms and rubber agroforests, ii) Group property rights for gold mining sites; and iii) Communal property rights in areas used for other forest extraction activities, such as wildlife hunting, agarwood collection, NTFP collection, and timber extraction. In areas with communal property rights, hunters, NTFP collectors or timber harvesters would have to obtain permissions from the customary leader in the respective village prior to carrying out these activities in the forest within the village. Sometimes these permissions involved a payment or a fee. Customary rules were imposed on the permit holders and if customary rules were violated, the permit holder would be sanctioned or have to pay penalties.

2.5.2 Recognition of Property Rights (G5.1)

Prior to joining the project, statutory management rights or ownership of the project area must be secured through Indonesia's Social Forestry program. The project will enable the village communities to maintain these rights by assisting them to implement the management plans needed for sustainable forest management. If these management plans are not implemented, management rights to the social forestry areas could be rescinded. The following project activities are designed to enable the project village communities to maintain the management rights to their Social Forestry areas:

- **Activity 1.1** Support for LPHD office building, training, operation, and coordination with stakeholders
- **Activity 1.2** Legal recognition for RKT, RPHD, boundary, and forest utilization permits

The project also recognizes the customary rights within the project areas that pre-date the statutory rights to Social Forestry areas. To ensure that these rights are respected and supported, prior to the enforcement of new regulations that affect the activities of customary rights holders, affected households will be identified, opportunity costs expected to result from the regulations will be estimated, and alternative livelihood activities that are sufficient to outweigh any opportunity costs will be agreed (see Section 2.1.13). This support will be provided through the following project activities:

- **Activity 4.1** Establishing and supporting livelihood activity groups
- **Activity 4.2** Community resilience capacity development

2.5.3 Free, Prior and Informed Consent (G5.2)

PRCF Indonesia has been working with the village communities in the initial project areas to develop a CCB project since April 2021. The design of the project has been a collaborative effort between PRCF Indonesia, the Village Forest Management Institutions (LPHDs) in each of the initial project villages, and the broader village communities. Project development has followed a participatory design process that ensures the project does not encroach uninvited on any private, community or government owned property. A summary of the stakeholder consultations and participatory planning activities that have been carried out in each of the initial project villages is provided in Section 2.3.3.

A Free, Prior and Informed Consent (FPIC) process for the project was developed with input from the initial village communities.³² This includes formal requests for consent at the following stages of project development:

- Agreement to explore the potential for a project with the support of PRCF Indonesia
- Agreement to pursue development of a CCB project with the village communities
- Agreement to implement the project.

At each stage, the community is given sufficient time to consider all information provided and arrive at a decision following their decision-making processes and timelines. Consent is then granted or withheld on behalf of the community by their chosen representatives. The information provided prior to considering these agreements, and the community representatives from whom consent is requested is summarized in Section 2.3.9 (see Table 14). These agreements have been signed by representatives of all the initial project village communities.^{13, 15, 17}

An Environmental and Social Impact Assessment in the initial project villages¹⁶ identified some stakeholders with customary rights to the project areas who could be negatively impacted by project activities. Potential negative impacts, and details of how these will be mitigated are described in Section 2.1.13 (see Table 8).

2.5.4 Property Rights Protection (G5.3)

The project does not include activities related to the resettlement or relocation of communities. Implementation of sustainable forest management plans in the Social Forestry areas is a requirement of the Social Forestry licenses granted for the project areas, but the introduction of new regulations or enforcement of existing regulations could require a reduction or relocation of activities carried out within the Social Forestry areas by the following user groups, some of whom have customary rights to use land and resources within the project area:

- Rice farmers;
- Gold miners;
- Timber harvesters; and
- Hunters.

To ensure that any reduction or relocation of activities required by regulations on use of land and resources within Social Forestry receives the free, prior and informed consent of the affected rights holders, prior to the enforcement of new regulations, affected households will be identified, opportunity

costs expected to result from the regulations will be estimated, and alternative livelihood activities that are sufficient to outweigh any opportunity costs will be agreed (see Section 2.1.13).

2.5.5 Illegal Activity Identification (G5.4)

Any use of land or resources that causes degradation to forests and biodiversity in Social Forestry areas is in contravention of Social Forestry regulations and could therefore be considered illegal. These activities include:

- Rice farming;
- Gold mining;
- Timber harvesting; and
- Wildlife hunting.

If regulations are not enforced, these activities are expected to reduce the project benefits. The project activities listed under the following outputs are designed to enable the enforcement of regulations on these activities to help achieve the expected project benefits.

- **Output 1:** Improved Village Forest Governance and Management
- **Output 2:** Forest Ecosystems within Social Forestry Areas are Protected from the Threat of Deforestation and Degradation
- **Output 4:** Improved Livelihoods and Develop Sources of Income

2.5.6 Ongoing Disputes (G5.5)

The social forestry areas in three of the initial project villages have boundaries that extend beyond the village area and into adjacent village areas (see Figure 20, Figure 22 and Figure 24). This potential source of conflict was identified during the project development process and PRCF Indonesia has facilitated discussions between villages to reach an agreement that project activities will only be carried out in parts of the social forestry areas within the project village boundaries (see Section 2.1.12, Table 7). Focus group discussions about interactions between communities and community groups in each of the initial project villages did not identify any other ongoing or unresolved disputes over rights to lands, territories or resources, or any disputes that had been resolved during the last ten years.¹⁴

2.5.7 National and Local Laws (G5.6)

A review of national and local laws and regulations relevant to the project activities⁴⁷ identified the following obligations and prohibitions that will be upheld by all participants in the project. Measures in place to ensure the project is complying with these requirements are summarized under each obligation/prohibition:

Communities and the project proponent must:

- Carry out forest management in accordance with the principles of sustainable forest management
 - The declarations issued by MoEF for each village forest require sustainable forest management. The project facilitates LPHD to develop 10-year forest management plans, approved by BPSKL, and annual management plans, approved by KPH. (followed)

- Protect village forest areas from environmental destruction and pollution
 - The project facilitates LPHD to conduct routine forest patrols (followed) and only supports sustainable livelihood activities that do not degrade the environment (to be implemented)
- Maintain and preserve forests
 - The project facilitates LPHD to conduct routine forest patrols and includes restoration plans. (followed)
- Prevent illegal logging/illegal use of forest areas
 - The project facilitates LPHD to conduct routine forest patrols, and constructs information boards explaining the banning of illegal logging and other illegal activities in the forest. (followed)
- Arrange the zones, mark the boundaries, map the zones and boundaries of the village forest work area and maintain the boundary marks
 - The declarations of village forests include maps that indicate the boundaries of the village forest and the areas for utilization and protection. These boundaries are marked on the ground and signage is posted on forest boundaries. (ongoing) Maintenance of the marker posts and signboards is included in the project's implementation budget. (to be implemented)
- Prepare forest management plans, business work plans, annual work plans for village/customary forest management, and mitigation action plan document (DRAM), and submit to authorities for legalization
 - The project supports the project villages to prepare and submit these plans to authorities for legalization. (followed)
- Submit implementation reports of forest management to the grantor of the village/customary forest management rights
 - Implementation reports are submitted to BPSKL, KPH, Dinas LHK, and BAPPEDA (district level planning board). (to be implemented)
- Carry out forest planting and maintenance in the forest area
 - Under the project implementation plan, forest restoration is carried out from Year 3. (to be implemented)
- Carry out forest products administration
 - KPH have provided support to some LPHD on development of forest product administration. The project is able to support further development of forest product administration, as needed. (to be implemented)
- Pay forest resources royalty
 - LPHD will pay PSDH when NTFPs are extracted from the village forest and traded. (followed in Tanjung; not yet relevant in other project villages)
- Pay non-tax state revenue (PNBP) from the results of forest management activities
 - The project will provide training to LPHD on payment of PNBP if sale of non-timber forest products arising from project activities becomes likely. (to be implemented)
- Maintain forest functions
 - The project supports the Village Council to develop regulations for forest protection (followed)
- Implement forest protection
 - Forest patrols are regularly conducted. (followed)

- Prepare documents on Environmental Management Efforts (UKL) and Environmental Monitoring Efforts (UPL)
 - PRCF Indonesia will prepare UKL/UPL if the project adopts activities with non-environmental impact but listed in the Indonesian Standard Industrial Classification (Klasifikasi Baku Lapangan Usaha Indonesia) based on MoEF Regulation No. 4 of 2021. Currently, the project foresees no such activities. (not yet relevant)
- Have environmental approvals/licenses
 - PRCF Indonesia will acquire environmental approvals/licences, as necessary. Currently, the project foresees no activities requiring such approvals/licences. . (not yet relevant)
- Maintain the sustainability and function of water
 - Forest restoration under the project will contribute to water flow regulation. The project has no plans for major diversion or use of water. (followed)
- Prevent water pollution
 - The project promotes the prevention of water pollution, including from domestic waste, through a community and media campaign. (ongoing)
- Participate in water pollution mitigation and water quality restoration
 - Reforestation and forest protection efforts will contribute to water quality by reducing surface erosion and the volume of suspended sediments in watercourses. (to be implemented)
- Maintain the continuity of the protection function of village forest and customary forest
 - Forest patrols and reforestation efforts. (patrols ongoing; reforestation not yet relevant)
- Register activities/actions for mitigating greenhouse gas (GHG) emission reductions for achievement of NDC targets into the National Registry System (SRN PPI) in accordance with statutory provisions
 - Project documents will be submitted to the National Registry System (to be implemented)
- Record the climate change adaptation and mitigation action activities carried out in the National Registry System for Climate Change Control (SRN-PPI).
 - Project documents will be submitted to the National Registry System (to be implemented)
- Calculating GHG emission reductions according to the Measurable, Reportable, Verifiable (MRV) principles according to rules and methods according to national standards.
 - National standards for MRV from forest protection and restoration projects are still under development, the project will monitor these developments and adapt MRV processes as required.

Communities and the project proponent must not:

- Conduct illegal logging/use of forest areas.
- Transfer village forest management rights.
- Pass on the village forest management rights to descendants.
- Change the status and function of forest area in the approved village/customary forest management areas.

- Use social forestry management approvals/licenses for other purposes outside the scope of the business work plan.
- Plant oil palm in village forest area.
- Collateralize the village/customary forest area, except the trees.
- Cut down trees, utilize timber forest products or collect forest products without rights - Utilization and harvesting timber forest products are allowed in village forest with production forest status, as long as the timber forest products originated from owned planted trees or trees that were granted to the LPHD.
- Use mechanical equipment in social forestry areas - The use of mechanical equipment is allowed in social forestry areas with production forest status which has remains of mining, fishponds or other types of land use that changed the landscape from the original condition. The use of mechanical equipment is intended for improving the ecosystem conditions.
- Build facilities and infrastructure that change the landscape of social forestry areas - Building facilities and infrastructure can be done by village/customary forest management committee at the village/customary forest with production forest status, according to the prevailing regulations.
- Burn the forest.
- Introduce wastewater into groundwater, springs, and closed lakes.
- Introduce waste, solid waste, sewage sludge, B3, and/or B3 waste into water bodies.
- Damage the physical condition and functioning of water bodies.
- Cause water pollution.
- Release invasive species or genetically modified organisms into water bodies contrary to the provisions of laws and regulations.
- Provide false, misleading, or incomplete information, or tamper with or misrepresent information.
- Capture, injure, kill, store, possess, keep, transport, or trade living protected animals.
- Store, possess, maintain, transport, or trade dead protected animals.
- Remove protected animals from one place in Indonesia to another inside or outside Indonesia.
- Trade, store or possess the skin, body or other parts of protected animals or goods made from such animal parts or remove them from a place in Indonesia to another place inside or outside Indonesia.
- Retrieve, damage, destroy, trade, store or possess eggs and/or nests of protected animals.

PRCF Indonesia provides awareness to LPHD and the project communities, including sub-groups such as social forestry business groups (KUPS), on all controls and prohibitions set out in the village forest declarations and the social forestry regulations. These prohibitions are supported by project activities, such as forest patrols, the erecting of signage on forest boundaries, and support for the submission of forest management plans, which are formally approved.

Government reviews the performance of the village forest every five years, which helps ensure compliance with prohibitions.

2.5.8 Approvals (G5.7)

The project has approval from the West Kalimantan Department of Environment and Forestry (*Dinas Lingkungan Hidup dan Kehutanan Kalimantan Barat*), and the Ministry of Environment and Forestry.^{58,59}

2.5.9 Right to Claim Benefits (G5.8)

Management rights to the project areas are held by Social Forestry Area Management Committees (e.g. LPHDs). A project agreement will be signed by the project proponent and each Social Forestry Area Management Committee to enable the project proponent to act on behalf of the committee to implement and obtain finance for the project. Project agreements have been signed with each of the management committees for each of the initial project areas.⁶⁰

2.5.10 Other Programs (G5.9)

The project is designed to generate specific ecosystem service outcomes that demonstrate performance to Rimba Collective, which provides results-based finance to the project. The project does not currently intend to claim GHG credits or any other form of social or environmental credit, and the GHG emission reductions achieved by the project are not included in an emission trading program or any other mechanism that includes GHG allowance trading.

2.5.11 Double Counting (G5.9)

This project does not currently intend to generate any carbon credits that could be used as offsets, but if this changes in the future, the project will register with and follow all requirements of the National Registry System for Climate Change Control (SRN PPI) to avoid any potential for double counting of emission reductions with the national GHG accounting mechanism in compliance with prevailing regulations.⁶¹

Following the latest MoEF Decree (SK.716/2023), to avoid double counting between carbon offsets sold on the voluntary market and Indonesia's national GHG accounting, Social Forestry projects must implement two sets of actions.

- 1) Steps applicable to all mitigation actions in Social Forestry projects:

⁵⁸ Endorsement Letter from West Kalimantan Provincial Environment and Forestry Service (DLHK KalBar)

⁵⁹ Approval Letter from DLHK. MoUs between LPHD and PRCF Indonesia for project implementation in each village, signed by Head of LPHD and Director of PRCF Indonesia, and signed by DLHK and BPSKL as witnesses.

⁶⁰ Cooperation Agreements between PRCF Indonesia and the LPHDs of the project villages.

⁶¹ Current regulations relevant to the development of carbon credits by Social Forestry projects include: Law No. 16 of 2016 regarding Ratification of Paris Agreement to the United Nations Framework Convention on Climate Change; Government Regulation No. 46 of 2017 regarding Instruments of Environmental Economics; The Presidential Regulation No. 98 of 2021 regarding Implementation of Carbon Economic Value to Achieve Nationally Determined Contribution Targets and Greenhouse Gas Emission Control in the National Development; Ministry of Environment and Forestry Regulation No. P.21/2022 regarding Governance of the application of carbon economic value; Ministry of Environment and Forestry Regulation No. P.7/2023 regarding Carbon trading procedures in forestry sector; Ministry of Environment and Forestry Regulation Decree No. SK.168/2022 regarding Indonesia FOLU Net Sink 2030; and Ministry of Environment and Forestry Regulation Decree No. SK.716/2023 regarding Integration of Carbon Economic Value Mechanism in the Forestry Sector's Approvals, Partnerships, and Business Permits.

- a) Develop a Mitigation Action Design Document (*Dokumen Rancangan Aksi Mitigasi*, DRAM).
 - b) Implement the mitigation actions to achieve Indonesia's NDC targets.
 - c) Register the mitigation actions in the SRN PPI
 - d) Estimate emissions reductions using MRV principles based on national standards requirements and methods.
- 2) Steps applicable to rights holders who will engage in the carbon trade:
- a) Propose issuance of emissions reductions certificates (Sertifikat Pengurangan Emisi, SPE) that will be traded through certification process.
 - b) Use SPE as medium of exchange with monetary values.
 - c) Obtain government authorization before implementing foreign carbon trading.
 - d) Do corresponding adjustment in the SRN PPI that can link to UNFCCC registry in the event of a transfer of the SPEs and conducted according to the legislations.
 - e) Support and prioritize the mitigation actions for achieving Indonesia NDC.
 - f) Ensure that carbon trading does not result in the transfer of the management rights/license with notarial deed.
 - g) Ensure there is no record of claims on carbon trading by buying countries in accordance with statutory regulations.
 - h) Set carbon trading contracts that are limited for a maximum of five years.

The first set of actions (1a to 1d) is applicable to all mitigation actions, not just those that generate carbon credits. These requirements are therefore integrated into the project's legal compliance framework (see Section 2.5.7).

3 CLIMATE

3.1 Without-Project Climate Scenario

3.1.1 Without-Project Estimated Greenhouse Gas Emissions (CL1.1)

Without-project GHG emissions will be estimated for each project area that joins the project by applying the Plan Vivo Approved Approach for Estimation of Climate benefits from REDD in community-managed forests.³⁷ This methodology was developed for use by social forestry projects in Indonesia and has been approved for use in this context after review by Plan Vivo. The methodology has been applied by social forestry projects in Indonesia that have been validated and issued with Plan Vivo Certificates, including the Nanga Lauk project in Kapuas Hulu.⁵⁵

Following this methodology, without-project GHG emissions are estimated with the equation:

$$E_{BL} = T_{PP} \cdot \frac{44}{12} \cdot \sum_{i,j,k} \left((D_{RRi,j,k} \cdot A_{PAi,j,k} \cdot (C_i - C_{NF})) + (G_{RRi,j,k} \cdot A_{PAi,j,k} \cdot (C_i - C_{SF_i})) \right)$$

Where:

E_{BL} = Baseline scenario emissions from deforestation and forest degradation expected during the crediting period (Mg CO₂);

T_{PP} = Length of the crediting period (years);

$D_{RRi,j,k}$ = Average proportion of the forest area present at the start of the reference region for forest type i , legal classification j and topography class k that was deforested in each year of the crediting period;

$\frac{44}{12}$ = Factor to convert from carbon to carbon dioxide based on molecular weights of carbon (12) and oxygen (16);

$A_{PAi,j,k}$ = Area of forest type i , legal classification j and topography class k present in the project area at the start of the crediting period;

C_i = Carbon density of forest type i (Mg C ha⁻¹);

C_{NF} = Carbon density of non-forest (Mg C ha⁻¹);

$G_{RRi,j,k}$ = Average proportion of the forest area present in the reference region at the start of the reference period for forest type i , legal classification j and topography class k that was degraded in each year of the reference period; and

C_{SF_i} = Carbon density of degraded forest of forest type i (Mg C ha⁻¹).

Sources of data for the parameters used in this equation are summarised in Table 16. Expected without-project GHG emissions from deforestation and forest degradation over the 25-year accounting period for the initial project areas are **76,773 t CO₂** (see Table 17).⁶² In addition to the emissions from loss of woody biomass, additional emissions from peat drying are expected at a rate of at least 5.3 tCO₂e/ha/yr for all areas of drained peatland in the project areas.⁶³ Because of the relatively small area of peatland in the

⁶² Project REDD calculations available in CFREDD spreadsheet.

⁶³ MoEF, 2016, National Forest Reference Emission Level for Deforestation and Forest Degradation Directorate General of Climate Change. The Ministry of Environment and Forestry. Indonesia.

project area emission reductions from avoided drainage of peatland are conservatively excluded from the expected project benefits.

Climate benefits are also expected from the project's tree planting activities, and natural regeneration of degraded areas within the Social Forestry areas. These increases in carbon stocks are also conservatively excluded from the expected climate benefits.

Table 16 Parameters for estimating without-project GHG emissions.

Parameter	Value(s)	Justification
Length of the project period (years); T_{PP}	25 years	Length of time for which funding will be secured for each project area prior to joining the project
Average proportion of the forest area present at the start of the reference region for forest type i , legal classification j and topography class k that was deforested in each year of the reference period; $D_{RRi,j,k}$	See Table 9	From analysis of historical timeseries of land cover maps produced by the Ministry of Environment and Forestry ⁶⁴
Area of forest type i , legal classification j and topography class k present in the project area at the start of the project period; $A_{PAi,j,k}$	See Table 3	Forest area from most recent Ministry of Environment and Forestry land cover map ⁶⁴
Carbon density of forest type i (Mg C ha^{-1}); C_i	See Table 18	Above-ground woody biomass carbon density values used in West Kalimantan Forest Reference Emission Level (FREL) ⁶⁵
Carbon density of non-forest (Mg C ha^{-1}); C_{NF}	0	Assuming all above-ground biomass is removed when conversion from forest to non-forest occurs
Average proportion of the forest area present at the start of the reference region for forest type i , legal classification j and topography class k that was degraded in each year of the reference period; $G_{RRi,j,k}$	See Table 9	From analysis of historical timeseries of land cover maps produced by the Ministry of Environment and Forestry, ⁶⁴ degradation is defined as conversion from primary to secondary forest.
Carbon density of degraded forest of forest type i (Mg C ha^{-1}); C_{SF_i}	See Table 18	Above-ground biomass carbon density values used in West Kalimantan Forest Reference Emission Level (FREL) ⁶⁵ . These values are consistent with other

⁶⁴ The land cover data are part of the National Forest Monitoring System (NFMS) accessible at <https://nfms.menlhk.go.id/> and links to the One Map Web GIS, at Geospatial Information Agency Republic of Indonesia <http://tanahair.indonesia.go.id>. The wall-to-wall land cover maps were derived from Landsat satellite images. The series of land cover maps were digitized manually for each monitoring year through visual interpretation of satellite imagery. Indonesia has generated the land cover data since 2000.

⁶⁵ Hardiansyah et al. (2016) FREL Forest Reference Emission Level West Kalimantan. UNU Kalbar Press: Pontianak. ISBN 978-6027-4511-6-2

		studies in the region that report similar or higher above-ground biomass carbon stocks for degraded forest. ⁶⁶
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Table 17 Estimated without-project GHG emissions from deforestation and forest degradation over a 25-year accounting period.

Village Name	Village Forest Name	Without-Project GHG Emissions	
		25-year Total (t CO ₂)	Per year (t CO ₂ /year)
Tanjung	HD Bukit Belang	9,144	366
Nanga Jemah	HD Nyuai Peningun	19,276	771
Sri Wangi	HD Batang Tau	244	10
Nanga Betung	HD Punjung Batara	43,845	1,754
Penepian Raya	HD Bumi Lestari	4,264	171
TOTAL		76,773	3,071

Table 18 Above-ground woody biomass carbon density of forest in West Kalimantan. Source: Inventory of 201 sample plots across eight districts in West Kalimantan⁶⁵

Forest type	Carbon density (t C/ha) ⁶⁷
Secondary dryland forest	89.56
Secondary swamp forest	126.31

⁶⁶ For example: Rahayu, S., Lusiana, B. and van Noordwijk, M., 2005. Above ground carbon stock assessment for various land use systems in Nunukan, East Kalimantan. *Carbon Stock Monitoring in Nunukan, East Kalimantan: A Spatial and Modelling Approach*. World Agroforestry Centre, SE Asia, Bogor, Indonesia, pp.21-34; Afentina, Patimaleh, I.B. and Kurniadi, 2022. Above Ground Carbon Stock across Different Land Use Types in Central Kalimantan Indonesia—First Step Toward Redd Implementation. *Journal of Ecological Engineering*, 23(8).; Ferraz, A., Saatchi, S., Xu, L., Hagen, S., Chave, J., Yu, Y., Meyer, V., Garcia, M., Silva, C., Roswintart, O. and Samboko, A., 2018. Carbon storage potential in degraded forests of Kalimantan, Indonesia. *Environmental Research Letters*, 13(9), p.095001

⁶⁷ These values are consistent with other studies in the region that report similar or higher AGB carbon stocks for degraded forest, including: AG carbon stocks of secondary forest 184.2 to 206.8 tC/ha (East Kalimantan <https://apps.worldagroforestry.org/downloads/Publications/PDFS/bc05121.pdf> 47.2 to 344.1 tC/ha (Central Kalimantan) <http://www.jeeng.net/pdf-151072-76644?filename=Above%20Ground%20Carbon%20Stock.pdf> 118.5 tC/ha (Kalimantan) <https://iopscience.iop.org/article/10.1088/1748-9326/aad782>

3.2 Net Positive Climate Impacts

3.2.1 With-Project Estimated Greenhouse Gas Emissions (CL2.1)

The total GHG emissions expected from land use activities inside the initial project areas under the with-project land use scenario are estimated following the Plan Vivo Methodology for Estimation of Climate benefits from REDD in community-managed forests.³⁷

Following this methodology expected with-project GHG emissions are estimated with the equation:

$$E_{PS} = E_{BL} \cdot (1 - F)$$

Where:

- E_{PS} Expected project scenario emissions from deforestation and forest degradation (tCO₂e)
- E_{BL} Baseline scenario emissions from deforestation and forest degradation (t CO₂e; see Section 3.1.1)
- F Expected effectiveness of project activities in reducing emissions from deforestation and forest degradation, expressed as a proportion of baseline scenario emissions that can conservatively be expected to be avoided as a result of project activities.

The effectiveness of project activities is expected to increase over time as project activities to address the drivers of deforestation and forest degradation are developed and implemented. A conservative estimate of expected effectiveness is therefore based on a gradual increase in effectiveness over the first 10-years of the project until the project is able to prevent 90% of the deforestation and degradation expected in the without project scenario from year 10 onwards. With this approach, the average effectiveness over the 25-year crediting period is 72%.⁶² Using this value in the equation above gives expected project scenario emissions from deforestation and forest degradation for the initial project areas of **21,343 t CO₂**.

None of the project activities that will be carried out within the Social Forestry areas have the potential to generate significant CO₂ or non-CO₂ GHG emissions.

3.2.2 Net Impact (CL2.2)

The anticipated net climate impact of the project is estimated following the Plan Vivo Methodology for Estimation of Climate benefits from REDD in community-managed forests.³⁷

Following this methodology net climate impact of the project is estimated with the equation:

$$B = E_{BL} - E_{PS} - E_{LK}$$

Where:

- B Climate benefits expected to result from reduced deforestation and forest degradation as result of project activities during the crediting period (t CO₂)
- E_{BL} Baseline scenario emissions from deforestation and forest degradation expected during the crediting period (t CO₂; see Section 3.1.1)
- E_{PS} Expected project scenario emissions from deforestation and forest degradation (tCO₂e; see Section 3.2.1)

E_{LK} Leakage emissions expected to result from displacement of deforestation and degradation during the crediting period (t CO₂e; see Section 3.3.2)

Inputting the values for estimated without-project emissions (see Section 3.1.1), with-project emissions (see Section 3.2.1) and leakage emissions (see Section 3.3.2) suggests net climate impact for the initial project areas will be an emission reduction of **44,344 tCO₂e**.⁶² Prevention of peatland degradation, and forest restoration activities are expected to generate additional GHG emission reductions and removals that are not included in this estimate.

3.3 Offsite Climate Impacts (Leakage)

3.3.1 Types of Expected Leakage (CL3.1)

The project activities have potential to generate two types of leakage:

- 1) Activity shifting leakage, if the agents of deforestation and/or forest degradation move to areas outside of the Social Forestry areas and continue their deforestation or degradation activities elsewhere.
- 2) Offsite GHG emissions from project activities, If project activities implemented outside the Social Forestry areas generate significant CO₂ or non-CO₂ GHG emissions.

Activity Shifting Leakage

The potential for activity shifting leakage, and the areas that activities could be displaced to, were assessed with input from user groups whose activities could cause deforestation and forest degradation in the without-project scenario.¹⁶ The results of this analysis highlight that the main potential sources of activity shifting leakage are displacement of farming, gold mining and timber harvesting as a result of enforcement of restrictions on these activities in the Social Forestry areas (see Table 19). Project activities are designed to minimize activity shifting leakage by increasing food and timber production outside Social Forestry areas and introducing alternative livelihood activities (see Section 3.3.3). A small amount of leakage from displacement of timber harvesting and gold mining activities is expected in the early years of the project, while alternative livelihood activities are developed. The potential leakage area is defined as all forested land within the project villages and villages adjacent to project villages (see Section 2.1.5, Figure 5 to Figure 9).

Table 19 Potential causes of activity shifting leakage

Activity	Potential for Activity Displacement	Area(s) Activity Could be Displaced To
Rice, vegetable and cash crop farming	There are around 230 households that own land within the initial project areas, some of which are from outside the project villages. Each household has between 0.5 and 3 ha. Not all the land owned by individual households is currently being used for cultivation, but for	Households that own land outside the Social Forestry areas could shift their production to areas they have previously cultivated. Households that don't own any land outside Social Forestry areas could lease land that has previously been cultivated

Activity	Potential for Activity Displacement	Area(s) Activity Could be Displaced To
	some households their only farmland is within the Social Forestry areas. If farming activities are restricted in the Social Forestry areas, farming activities could be displaced.	from other landowners in their village or neighboring villages.
Gold mining	Gold mining is practiced in three of the initial project villages, and in Nanga Betung and Tanjung it is a major source of income. Gold mining within the Social Forestry areas has been prevented by enforcement of regulations since the village forest licenses were granted and completely enforced by the villages, in Nanga Jemah (from 2018), in Nanga Betung (from 2021), and in Tanjung (from 2021), and reinforced in the initial project villages by the Village Regulations regarding Village Forest Management recently issued in 2023. Households that had previously practiced gold mining within the Social Forestry areas have moved their activities to other areas within the villages. Ongoing enforcement of restrictions on gold mining through the implementation of project activities therefore has potential to displace gold mining activities to areas outside the Social Forestry areas.	Gold mining activities could be displaced to areas within the village boundaries where gold is present.
Timber harvesting	There are around 25 households that harvested timber from the initial project areas prior to start of the project, some of which come from outside the project villages. Timber harvesting within the Social Forestry areas has been prevented by enforcement of regulations since 2021 in Nanga Betung and Tanjung Villages, and reinforced in the first initial project villages by the Village Regulations regarding Village Forest Management recently issued in 2023, with exception in Nanga Betung and Sri Wangi Village Forests which its entire village forest or part of it is	In some villages there are no other sources of timber than the Social Forestry areas, in others timber can be sourced from outside the Social Forestry areas. Timber harvesting activities could be displaced to forested areas within the village boundaries, and/or timber harvesters could shift to gold mining in areas where gold is present.

Activity	Potential for Activity Displacement	Area(s) Activity Could be Displaced To
	within production forest status (HPT or HP) where according to the prevailing regulations that timber harvesting is allowed as long as the trees are planted by the harvesters themselves, households that had previously practiced timber harvesting within the Social Forestry areas have either moved their activities to other areas within the village or adopted alternative livelihood activities such as gold mining. Ongoing enforcement of restrictions on timber harvesting through the implementation of project activities therefore has potential to displace timber harvesting or cause an increase in gold mining in areas outside the Social Forestry areas.	

Offsite GHG Emissions from Project Activities

The Theory of Change for the project includes increasing livelihood and income options optimizing the value of forestry and agricultural products. (see Section 2.1.8). These activities would be carried out in areas within the project villages that are outside the Social Forestry areas. The activities will initially target those households and individuals whose activities within the Social Forestry areas are restricted as a result of project activities, and specific livelihood activities will be developed based on a full assessment of opportunities and preferences of the project affected people. Livelihood improvement options with potential to generate significant offsite GHG emissions include:

- Establishment or reopening of paddy fields,
- Establishment or expansion of aquaculture,
- Introduction or increase in number of livestock, and
- Increasing use of nitrogen fertilisers

If any of these activities are proposed in the development of the livelihood improvement plans, the associated increase in GHG emissions will be estimated using established approaches.⁶⁸ Total emissions from livelihood improvement activities will be maintained below 10% of the emission reduction expected from reduced deforestation and forest degradation, or **5,543 tCO₂e** (see Section 3.3.2).⁶²

⁶⁸ For example, 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 4 Agriculture, Forestry and Other Land <https://www.ipcc-nggip.iges.or.jp/public/2019rf/vol4.html>; Plan Vivo Module PU004 Estimation of baseline and project GHG emissions from emission sources in Plan Vivo projects. <https://www.planvivo.org/Handlers/Download.ashx?IDMF=d2a6537e-7f29-48ce-937e-c988e702a2e7>

3.3.2 Quantity of Expected Leakage (CL3.1, 3.3)

Potential offsite increases in GHG emissions from leakage are estimated following the Plan Vivo Methodology for Estimation of Climate benefits from REDD in community-managed forests.³⁷

Following this methodology expected emissions in the project scenario are estimated with the equation:

$$E_{LK} = L \cdot (E_{BL} - E_{PS})$$

Where:

E_{LK} Leakage emissions expected to result from displacement of deforestation and degradation during the crediting period (t CO₂e)

L Leakage discount factor expressed as a proportion of climate benefits that could be lost as a result of leakage

E_{BL} Baseline scenario emissions from deforestation and forest degradation expected during the crediting period (t CO₂)

E_{PS} Expected project scenario emissions from deforestation and forest degradation (tCO₂e; see Section 3.2.1)

As described in Sections 3.3.1 and 3.3.3, there is potential for some activity shifting leakage from displacement of gold mining and timber harvesting activities in the early years of the project, while alternative livelihood activities are established. These are not the main drivers of deforestation in the initial project areas however, and the risk of displacement is expected to be short term. It is therefore assumed that a maximum of 10% of the expected emission reduction from avoided deforestation and forest degradation will be lost through activity shifting leakage.

Offsite GHG emissions from project activities could also be up to 10% of the expected emission reduction from avoided deforestation and forest degradation in the project areas. A leakage discount (L) factor of 20% is, therefore, applied in the equation above so that expected leakage emissions are calculated as **11,086 tCO₂e**.⁶²

3.3.3 Leakage Mitigation (CL3.2)

Activities to mitigate leakage include activities to restore degraded land and provide additional livelihood activities to community members who may otherwise be engaged in unsustainable resource use activities within the Social Forestry areas by:

- Rehabilitating the degraded areas within the village forest and outside using agroforestry approach (**Activity 3.1**) and
- Improving and optimizing forestry and agricultural products (**Output 4**).

Potential causes of activity shifting leakage are described in Section 3.3.1 (see Table 19). Specific measures designed to mitigate activity shifting leakage are summarized in Table 20. To mitigate the potential for significant offsite GHG emissions from livelihood improvement activities, total emissions from all livelihood improvement activities will be maintained below 10% of the expected emission reductions from avoided deforestation and forest degradation (see Section 3.3.1). A leakage discount factor of 20%

will be applied when calculating the anticipated net climate impact of the project, to account for potential activity shifting leakage and offsite GHG emissions from project activities (see Section 3.2.2).

Table 20 Leakage mitigation measures

Activity	Leakage Mitigation
Rice, vegetable and cash crop farming	The project does not aim to restrict the farming activities of households whose only farmland is within Social Forestry areas. Households that own land within and outside the Social Forestry areas will be identified, opportunity costs expected to result from foregone agricultural expansion will be estimated, and alternative livelihood activities with potential to generate additional income and/or resources that are sufficient to outweigh any opportunity costs will be supported by the project.
Gold mining	To prevent significant leakage from displacement of gold mining activities, the project aims to phase out all gold mining within the village areas that are forested. As these additional regulations are developed and enforced, affected households will be identified, opportunity costs expected to result from foregone gold mining in forested areas will be estimated, and alternative livelihood activities with potential to generate additional income and/or resources that are sufficient to outweigh any opportunity costs will be supported by the project.
Timber harvesting	The project aims to reduce the need for harvesting timber from Social Forestry areas by planting timber trees in farmlands outside the Social Forestry areas, that will provide a source of timber after around 15 years. Households affected by regulations on timber harvesting within Social Forestry areas will therefore be identified, opportunity costs expected to result from foregone timber harvesting will be estimated, and alternative livelihood activities with potential to generate additional income and/or resources that are sufficient to outweigh any opportunity costs will be supported by the project.

3.4 Climate Impact Monitoring

3.4.1 Climate Monitoring Plan (CL4.1)

Reduced emissions from deforestation and forest degradation in the project areas will be monitored throughout the project lifetime following the Plan Vivo Approved Approach for Estimation of Climate benefits from REDD in community-managed forests,³⁷ to estimate reduced emissions from a timeseries of land cover maps produced by the Ministry of Environment and Forestry⁶⁴ and above-ground biomass carbon density values used in West Kalimantan Forest Reference Emission Level (FREL).⁶⁵ The parameters that will be monitored are summarized in Table 21.

Table 21 Climate impact monitoring plan.

Parameter	Monitoring Approaches	Frequency of Monitoring
Updating baseline emission estimates		
AA_{Def_i} Area of deforestation of forest type i , legal classification j and topography class k in the reference region (ha)	Analysis of historical timeseries of land cover maps produced by the Ministry of Environment and Forestry. ⁶⁴	Every 5-years
AA_{Deg_i} Area of degradation of forest type i , legal classification j and topography class k within the reference region (ha).		
AA_{RR_i} Area of forest stratum i present within the reference region at the start of the verification period (ha)		
A_{PA_i} Area of forest stratum i present in the project area at the start of the verification period (ha)		
Calculation of project and leakage emissions		
D_{PA_i} Area of deforestation of forest type i , legal classification j and topography class k within the project area (ha)	Analysis of historical timeseries of land cover maps produced by the Ministry of Environment and Forestry, ⁶⁴ and ground-based mapping of deforested/degraded areas identified by patrol teams or from Global Land Analysis Deforestation (GLAD) alerts. deforestation alerts. ⁶⁹	Every 2-years
G_{PA_i} Area of degradation of forest type i , legal classification j and topography class k within the project area (ha)		
D_{LA_i} Area of deforestation of forest type i , legal classification j and topography class k within the leakage area (ha)		
G_{LA_i} Area of degradation of forest type i , legal classification j and topography class k within the leakage area (ha)		
A_{LA_i} Area of forest stratum i present in the leakage area at the start of the verification period (ha)		

The parameters in Table 21 and emission factors in Table 16 will be used to calculate actual baseline, project and leakage emissions using the following equations in the Plan Vivo Approved Approach for Estimation of Climate benefits from REDD in community-managed forests (CFREDD):³⁷

- Baseline scenario emissions from deforestation and forest degradation will be calculated following Equations 4 to 6 in CFREDD Section 3.1.2
- Project emissions will be calculated with Equations 8 and 9 in CFREDD Section 3.2.2
- Leakage emissions will be calculated with Equations 13 to 15 in CFREDD Section 3.3.2b of CFREDD, with a leakage area defined by the forested areas outside of Social Forestry areas within the project villages and adjacent villages (see Section 2.1.5, Figure 5 to 9)

⁶⁹ Global Land Analysis deforestation alerts <https://www.globalforestwatch.org/blog/data-and-research/glad-deforestation-alerts/>

- Climate benefits will be calculated with Equation 17 in Section 3.4.2 of CFREDD.

In addition to the monitoring that will be carried out to quantify climate impact, weekly deforestation alerts for the project areas will be accessed from the University of Maryland's Global Analysis and Discovery (GLAD) lab will be accessed through the Global Forest Watch platform,⁷⁰ and fire alerts will be obtained from the NASA Fire Information for Resource Management System (FIRMS).⁷¹ All alerts received will be investigated by forest patrol teams to determine their veracity, map areas affected, describe causes and develop actions to mitigate further negative impacts.

3.4.2 Dissemination of Monitoring Plan and Results (CL4.2)

A summary of monitoring results will be provided annually to each LPHD and published on the Yayasan PRCF Indonesia website. This will be discussed in an annual village meeting open to all community members in each village, and key monitoring results will be displayed as posters within the project villages. Annual meetings with stakeholders will be used as an opportunity to discuss project progress, including monitoring results, challenges, and follow-up activities for the next year based on an adaptive management approach.

3.5 Optional Criterion: Climate Change Adaptation Benefits

Not applicable

3.5.1 Regional Climate Change Scenarios (GL1.1)

Not applicable

3.5.2 Climate Change Impacts (GL1.2)

Not applicable

3.5.3 Measures Needed and Designed for Adaptation (GL1.3)

Not applicable

4 COMMUNITY

4.1 Without-Project Community Scenario

4.1.1 Descriptions of Communities at Project Start (CM1.1)

Village and customary communities in the project zone are heavily dependent on use of natural resources for the livelihood activities, and are typically subsistence farmers, hunters, gatherers, and fishers who sell surplus crops or products for cash income. Gold mining activities have attracted the younger generation.

⁷⁰ Global Forest Watch Platform <https://www.globalforestwatch.org/>

⁷¹ NASA Fire Information for Resource Management System (FIRMS)
<https://firms.modaps.eosdis.nasa.gov/alerts/>

Details of the well-being, community characteristics, and diversity in the initial project communities are described below.

Well-being

To describe the well-being of the initial project communities, a Participatory Well-Being Assessment was carried out in each village.¹⁴ During these assessments, community members select indicators for describing different levels of well-being in their village. Indicators selected reflected various aspects of well-being including:

- Housing;
- Assets e.g., Savings, Jewellery, Land, Livestock;
- Possessions e.g., Clothing, Vehicles, Home appliances;
- Access to necessities e.g., Food, Education, Healthcare; and
- Occupation and business activities.

For each indicator five categories are defined that reflect different levels of well-being present in the village ranging from 'Very Capable' to 'Not Capable' (for example see Table 22). Village members then identified the number of households in each category to describe conditions immediately prior to the start of the project. Results from the five initial project villages are summarized in Table 23. Similar analyses will be carried out in each village that joins the project to provide a benchmark and set of indicators against which changes in well-being can be assessed.

Table 22 Participatory Well-Being Indicators as described by representatives of Tanjung Village Communities, 21 October 2021

Indicator	Capable	Medium	Less capable	Not capable
Clothing	- High quality of material - Able to purchase at anytime	- Medium quality of material - Purchasing cloths once in 6 months to 1 year	- Low quality of material - Purchasing cloths once in 1-2 years	- Very low quality - Rarely buy clothes
Food	- Complete menu of 4 Sehat 5 Sempurna (carbohydrate, animal protein, vegetable, fish/meat, fruits, milk) - High quality of rice - Able to eat in the restaurant at anytime - Have choices to have bread for breakfast	- At least fulfil 3 kinds of the 4 Sehat 5 Sempurna menu (rarely having meat and milk) - Medium quality of rice - Sometimes eat in the restaurant - Have rice and fish for breakfast	- Most of the 4 Sehat 5 Sempurna menu are not fulfilled (rarely having meat, fruits, and milk); self-produce rice, roots, and collect wild vegetable - Subsidized rice (<i>Beras Bulog</i>) - Never eat in the restaurant - Have rice or cassava for breakfast	- Most of the 4 Sehat 5 Sempurna menu are not fulfilled (usually only carbohydrate and vegetable); self-produce rice, roots, and collect wild vegetable - Subsidized rice (<i>Beras Bulog</i>) - Never eat in the restaurant - Rarely having breakfast

Indicator	Capable	Medium	Less capable	Not capable
Child education	- College/Univ in Pontianak, Java, etc. - Self-finance; or scholarship - High ability to finance children to go to school - Sometimes low awareness of the child to go to school	- College/Univ in Pontianak, Java, etc. - Self-finance - Medium ability to finance children to go to school	- College - Self-finance but must work very hard to pay the child's tuition, scholarship - Low ability to finance children to go to school - High awareness of the child to go to school	Children don't go to school
House	- Owned house - Size: at least 10x12 m2 - Materials: - Walls: concrete or timber Class I (<i>tekam</i>) - Roof: tin roof or metal roof - Roof frame: light steel - Floor: ceramic	- Owned house - Size: 6x9 m2 - Materials: - Walls: concrete or timber Class I (<i>tekam</i>) - Roof: 'wavy' tin roof - Roof frame: wood - Floor: cemented or wood	- Owned house or sharing house with parents - Size: 4x6 m2 - Materials: - Walls: timber Class II or III (sawn timber, not finished) - Roof: 'wavy' tin roof or 'sirap' wood (<i>temau</i>) - Roof frame: wood - Floor: wood class II (<i>tengkawang</i>, <i>durian</i>, <i>temau</i>)	Not owning house

Indicator	Capable	Medium	Less capable	Not capable
Farm	- Owned rubber, coffee, and 'purik' farms >5,000 trees - Size: >4 ha - Able to hire labor to work on the farm	- Owned rubber, coffee, and 'purik' farms 1,000-2,500 trees - Size: 1–2 ha - Owner work on the farm by themselves	- Not owning farm, or owned rubber, coffee, or 'purik' farms <1,000 trees - Size: 0–1 ha - Owner work on the farm by themselves and usually the farm is not maintained	Not owning farm
Saving	- Saving money in the bank or Credit Union of > IDR 50M - Gold saving or jewelry of > 15 riyals (1 riyal = 3.375 grams)	- Saving money in the bank or Credit Union of IDR 10–15M - Gold saving or jewelry of 1–15 riyals (1 riyal = 3.375 grams)	- Saving money in the bank or Credit Union of IDR 1–10M - No gold saving or jewelry	- No money saving - No gold saving or jewelry
Business	Having 2-3 types of business (Livestock, trade/shop, rubber/coffee/'purik' farm, fishpond, handicraft, gold mining, or blacksmith)	Having 1-3 types of business (Livestock, trade/shop, rubber/coffee/'purik' farm, fishpond, handicraft, gold mining, or blacksmith)	No business or only one business but always changing types	No business
Vehicle	- Owned >1 unit of 4 wheels vehicle (car) - Owned >2 units of 2 wheels vehicle (motorcycle)	- No car - Owned 1–2 units of 2 wheels vehicle (motorcycle)	No vehicle	No vehicle

Indicator	Capable	Medium	Less capable	Not capable
Healthcare	- Register to National Health Insurance (BPJS) Class I - Register to additional private insurance - Able to go to/pay private hospital for healthcare	- Register to National Health Insurance (BPJS) Class II - Not register to additional private insurance - Go to government's hospital for healthcare	- Register to National Health Insurance (BPJS) Class III and subsidized by the Government (free of charge) - Not registered to additional private insurance - Go to government's hospital for healthcare or 'dukun' (traditional healer)	- Not registered to National Health Insurance (BPJS) - Not registered to additional private insurance - Cannot afford to go to health facility.
Home appliances	Owned at least 5 kinds of home appliances (Television, refrigerator, meuble, washing machine, spring bed, air conditioner, or electric fan)	Owned at least 2–4 kinds of home appliances (Television, refrigerator, meuble, washing machine, spring bed, air conditioner, or electric fan)	Not owning or at least owned 1 home appliance (Television, refrigerator, meuble, washing machine, spring bed, air conditioner, or electric fan)	Not owning home appliances

Table 23 Summary of Participatory Well-being Assessment Results from five villages in Kapuas Hulu District. Source: Damayanti et al. (2021)¹⁴

Village	Number of Households					
	Very Capable	Capable	Medium	Less Capable	Not Capable	Total
Tanjung		3 (1%)	91 (35%)	161 (62%)	5 (2%)	260
Nanga Jemah	4 (1%)	20 (7%)	128 (47%)	90 (33%)	30 (11%)	272
Sri Wangi	2 (1%)	7 (4%)	75 (41%)	75 (41%)	25 (14%)	184
Nanga Betung	0 (0%)	35 (16%)	73 (32%)	69 (31%)	48 (21%)	225
Penepian Raya	0 (0%)	15 (7%)	67 (30%)	114 (51%)	26 (12%)	222

Community characteristics

Potential project villages have a diverse range of community characteristics with some commonalities but also many differences between villages based on their location, ethnicity, and history. The information below was obtained from focus group discussions and key informant interviews in the five initial project villages.¹⁴

Language

The communities within the project zone generally speak Malay, with either a Kapuas Hulu dialect or accent, or mixed with another language. For example, Tanjung village community members use a mix of Malay Kapuas Hulu with indigenous Dayak Suruk and the daily language used by the Nanga Jemah Village community is Malay with an accent that is distinctive for people of Kapuas Hulu District.

Mythology

Myths or legends are passed down for generations within the Kapuas Hulu communities, usually by song or through word of mouth. Common themes of local myths include magical people who had a certain invulnerability allowing them to be very strong fighters, or protectors of the village. *Nenek Jukut* of Sri Wangi Village, for example, was claimed to have been able to kill a whole clan by himself. For the community of Nanga Jemah village, a certain magical person *Kalang Tadung* showed his magic by sticking a *keris* (a Javanese short sword) in a banana tree, causing the sun to be covered. Invulnerability is also present in a Penepian Raya Village myth concerning *Ai Sri Laga*, whose invulnerability allowed him to easily catch fish when others couldn't, and install *halimun*, protecting the village from being seen and therefore offering protection from enemy attack. The "law of the jungle" is also a theme which runs between villages of Sri Wangi and Tanjung, with stories about traditions by which ancestors hunted human heads. Myths concerning the natural landscapes forming the villages are also relatively common, from *Bukit Belang* of the Tanjung village (a human incarnation of a tiger) to *Batu Bara*, a story about a stone that should not be touched or beaten in Nanga Jemah village. Mythical creatures are present not only in the Tanjung village, as previously mentioned, but also in Nanga Jemah mythology. *Remaung*, a folk tale about a creature with a very thin body that when viewed from the front, was supposed to be very wide when viewed from the side, resembling a dog, with echoing voice, and appearing before dawn.

History

The formation of villages in Kapuas Hulu typically came from the settling of tribes in areas that were considered suitable for farming and hunting or protected from enemies. A government policy of village

regrouping in 1988 resulted in some changes in the names of certain villages, such as Kampung Tanjung becoming Tanjung village. Regarding the government's policy on village regrouping, the Kampung Sri Wangi and Kampung Nanga Jemah (Sri Wangi small hamlet and Nanga Jemah small hamlet) were merged into one village. However, village separation was then carried out, and Nanga Jemah Village again separated from Sri Wangi Village. At the time of village separation, the boundary between the main village and the new village referred to the boundaries between hamlets (*dusun*), where Gurung Ladan and Tanjung Lanyan hamlets became part of Sri Wangi Village, while Riam Gula Hamlet, Gunung Lawit Hamlet, and Bangik Permai Hamlet became part of the Nanga Jemah Village. Kampung Nanga Jemah changed to *dusun* around the 1990s and the name of the hamlet/dusun at that time was Dusun Kuala Gurung, part of Sri Wangi Village, Bunut Hilir Sub-district. The separation of Sri Wangi Village began in April 2011, Dusun Kuala Gurung became Nanga Jemah Village with the kampungs in Dusun Kuala Gurung converted into *dusuns*/hamlets (Riam Gula, Gunung Lawit, and Bangik Permai). Initially Nanga Betung was a hamlet part of Riam Mengelai Village. In 2007, however, Riam Mengelai Village was divided, and Nanga Betung hamlet became Nanga Betung Village.

Most of the members of Tanjung village are part of the Dayak Suruk community, who originally came from the Central Kalimantan region. The ancestors of the Sri Wangi people came from the Dayak Silat tribe, the centre of which then moved again to the Mulan River because the previous area was not suitable for farming. In the 1980s it moved again to its current location in Tanjung Lanyan which became Sri Wangi Village. The original tribe of the Nanga Betung community is the Dayak Senganan ethnic group, a group of Dayak ethnicity who embraced Islam. The current Nanga Betung Village was originally located in Muara Nanga Betung (Nanga Betung Estuary). In the 1970s, it moved upstream. The move was based on Babinsa Bunut Hilir's request, following an order from the Bupati who planned to make a district road and to make it easier to access the road without crossing the river. Nanga Betung residents are all immigrants, coming from Nanga Bunut.

Nanga Jemah Village consists of 3 *dusuns* (hamlets), namely Dusun Riam Gula, Dusun Gunung Lawit and Dusun Bangik Permai. Bangik Permai hamlet was formerly a resting place for farming communities, wood workers, gold workers and hunters. Gradually, this place became crowded, and settlements were formed, eventually becoming a hamlet. Prior to the 1940s, Nanga Jemah Village was inhabited by the Dayak Gilang tribe. Penepian Raya Village was initially part of Ujung Said Village. The founders of Ujung Said village, namely Grandpa Suralaga and Grandmother Pala, came from the Embau area (Hulu Gurung sub-district). They were the first to come and settle in the Ujung Said area to find fish and find a place to grow crops. This area has been known as a fish-producing area, so many residents from the Embau area follow the steps of Grandpa Suralaga and Grandmother Pala.

Culture, customary/ritual practices, and traditional values

Customary practices and rituals are often related to farming practices, including rituals or prayers expected to protect or ensure a good harvest, as well as practices concerning marriages or births. One such ritual involves the placing of a stone, in the Penepian Raya and Tanjung villages, known as *Ngantar Batu*, hoping to ensure a good harvest. Rituals proceeding, during and following a harvest are common throughout the villages, with thanksgivings being often celebrated among the villages. Some villages share very similar cultural practices, such as the communities of Nanga Jemah Village and Sri Wangi Village, having been one single village in the past, with the same ethnicity and religion.

Certain practices, such as the Betar, the welcoming of the bride and groom and parading the groom to the bride's house, are practiced in several villages, in this case in the Penepian Raya, Sri Wangi, Nanga Jemah and Nanga Betung villages. Moslems in Sri Wangi village, Nanga Jemah village, Nanga Betung

village, and Penepian Raya village celebrate the birthday of the Prophet Muhammad SAW. These villages also partake in traditional Malay practices, for example Pelangkah (also known as Silat) a martial art of Malay culture. The current residents of Sri Wangi Village are almost all from the Malay tribe, therefore, the culture of residents is Malay culture. Some of the villages partake in rituals, prayers or ceremonies after a child has been born. These practices may include hair cutting, such as in the Penepian Raya and Nanga Betung villages. Rituals and prayers to ensure healthy community members, harvests, and relationships within the communities seem to be important to most of the villages.

Livelihood systems

The traditional livelihoods of most villages are hunting or farming, which have generally been maintained until recent times. Gold mining also represents a source of income for several villages (e.g., Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah and Penepian Raya villages). The main livelihoods being mainly these three activities in the past, most villages have experienced significant diversification in their livelihood activities over the past few decades. Certain villages, such as Nanga Betung and Sri Wangi villages have expanded into repair shops, trading, and online businesses. In the Nanga Jemah village, for example, farming represented the principal livelihood for most of the community at one time. Currently, only 30% of the population practice farming, with the other 70% diversifying their activities to include rubber and fish farming, amongst other practices such as logging and gold mining. Generally, livelihoods in these areas are centred around the natural resources of the area, which usually include forests, fields, and rivers. In recent decades, many of the villages have planted rubber farms and *kratom/purik* farms, with rubber farming being an important part of Nanga Jemah, Nanga Betung and Sri Wangi village livelihoods. Penepian Raya village is the only initial project village where fishing constitutes the main livelihood. Here, 70% of the working population are involved in fishing, with the remaining 30% usually involved in rice farming. Due to weather events, mainly flooding, alternative livelihoods for these village community members have been found in *kratom/purik* harvest, or in harvesting honey. Livelihood activities also vary with fluctuations in market demand and prices for certain products such as rubber and NTFPs.

Community relationships with natural resources, or the customary institutions

Community relations with natural resources in the villages are generally very tight. Communities rely on good harvests of rice, honey, vegetables, and rubber, as well as *kratom/purik* to gain sufficient income. Natural resources are very important and are used for food, shelter, and clothing, as well as for clean water and medicines. The forest is an ecosystem which is very present in many of the community's livelihoods and daily life, with wood being used for shelter or sold as timber, and honey and other NTFPs being collected from forests. Traditional medicines are also produced from the plants and trees found within these forests. Raising livestock has not been a part of traditional culture in these communities, therefore when game in the forest is scarce there can be few alternative sources of protein.

Rules governing the use of resources and sites

Customary regulations that contain customary rules for the Penepian Raya Village, the Nanga Jemah village, the Sri Wangi village and the Nanga Betung village are written in a Book of Malay Customary Law, with specificities relating to each sub-district, i.e., Jongkong sub-district for Penepian Raya village, and Boyan Tanjung sub-district for Nanga Betung, Sri Wangi, and Nanga Jemah villages. Several matters that are regulated in this book are related to the management of natural resources, often relating to forest management and utilization of forest products in each area. Customary rules regarding the use of timber in Nanga Jemah village by outsiders, for example, states that if there are individuals from outside the

village who want to fell trees in the Nanga Jemah village area, they must obtain permission from the traditional and village institutions, otherwise they will be fined.

The Nanga Betung, Sri Wangi, and Nanga Jemah villages generally follow guidelines written in Malay Law Books of Boyan Tanjung sub-district, with customary rules being enacted by each village independently. Rules on forests or environment protection have been included in the “Handbook and Guidelines for Customary Regulations of the Malays in Boyan Tanjung Subdistrict” (Boyan Tanjung Kepunggawaan Territory) of 2011. The rules became guidance for the Sri Wangi Village community who are still following customary practices in day-to-day life. There are no written regulations regarding the use of forest products in the Village Forest area, but there is a mutual agreement regarding the prohibition of cutting down trees in Bukit Mantuh and Village Forests. In addition, the village has also drawn up a Village Regulation regarding the Management and Utilization of Forest Products. Likewise, Nanga Jemah village communities also use the Malay Customary Law Book of Boyan Tanjung sub-district. Some of the customary rules included in this book include customary rules regarding the use of timber in Nanga Jemah village by outsiders. Others concern fishing or hunting wildlife or regulate and/or prohibit the use of stun, tuba, poison/*ngelanet*. For Nanga Betung Village, the Village Regulation for customary rules in this customary book has been enacted. Customary regulations that contain customary rules for the Penepian Raya Village community are also written in the Book of Malay Customary Law, Jongkong sub-district. Several matters that are regulated related to the management of natural resources, such as in Chapter IV concerning the Rules of Land, Lake, River and Tikung.

A Dayak Suruk Adat/Customary Rules Book used by the Tanjung Village community includes a customary rule regarding the use of trees. This rule states that the community may cut down trees only for the purpose of building houses. If someone cuts trees more than what is needed and is abandoned after being cut down for the purpose of building a house, they will be subject to customary sanctions. Customary rules also prohibit the cutting of some other trees, such as durian, damar, and trees where honeybees nest. If there are residents who destroy the Tanjung Village Forest, they can be subject to customary sanctions. Activities that are prohibited and regulated in Adat/Customary Regulations are cutting, burning, making snares, hunting, etc.

In areas where fishing makes up part of local livelihoods, such as Nanga Jemah Village and Penepian Raya Village, customary rules also affect people from outside the village wishing to fish. These people are charged a fee of Rp. 50,000/person in Nanga Jemah village, for example.

Traditional authority structures and institutions

Traditional authority in Tanjung Village is represented by the customary institution (*Lembaga Adat*). The position of customary institutions in the eyes of the community is very important, especially their role in facilitating conflict resolution in the village. The traditional institutional structure in the village consists of the Village Customary Head who is domiciled in the village and the Dusun Customary Chief who is domiciled in each hamlet in the three hamlets in Tanjung Village.

Traditional authorities and institutions in Nanga Betung Village, Sri Wangi Village, Nanga Jemah Village, and Penepian Raya Village have a similar structure to that of Tanjung village, despite differences in ethnicities. In each village, there is a village customary institution headed by a Village Customary Chief and its members are Hamlet Customary Chiefs from each hamlet. Therefore, the number of members of customary institution in each village depends on the number of hamlets. In addition to facilitating conflict resolution in the village, customary institutions provide guidance on day-to-day life in the village according to tradition and custom, following the customary law books.

Diversity

Diversity in the communities at the start of the project is described in terms of social, economic and cultural characteristics. Diversity in the community's wealth, gender, age, and ethnicity is described in Section 2.1.4.

4.1.2 Interactions between Communities and Community Groups (CM1.1)

Interactions between communities, community groups, community members, households, and organizations in the initial project villages are reportedly good.¹⁴ All of the initial project villages reported having good relationships with people who arrive in the village, as well as with surrounding villages, despite religious differences. Village communities have mutualistic interactions with high levels of cooperation and socializing within the community, and a high level of respect among community members, including between village level institutions and organizations, and between the older and younger generations.

4.1.3 High Conservation Values (CM1.2)

High conservation values related to communities present in the initial project villages, identified through participatory mapping and focus group discussions,¹⁴ are summarised below. Maps showing the locations of these HCVs are provided in Section 2.1.5 (Figure 10 to Figure 14). Similar maps will be produced for all villages that join the project to identify focal areas that need to be managed to maintain and enhance HCVs.

High Conservation Value	Areas Important for the Provision of Water for Downstream Communities (HCV 4.1)
Qualifying Attribute	Sources of water used by local communities.
Focal Area	Springs, Waterfalls, Rivers, Streams and Dams within Social Forestry areas.

High Conservation Value	Areas Important for the Prevention of Erosion (HCV 4.2)
Qualifying Attribute	Soil erosion from steep slopes that have been deforested causes flooding and landslides that threaten settlements and agricultural areas used by local communities.
Focal Area	Steep, deforested slopes within social forestry areas.

High Conservation Value	Natural Areas Critical for Meeting the Basic Needs of Local People (HCV 5)
Qualifying Attribute	Areas used by local communities for gathering and cultivating food including shoots, fruits, fish, and vegetables; collecting firewood and medicinal plants; harvesting timber for local use; and gold mining.

Focal Area	Primary and secondary forest, farms, rivers, and streams.
High Conservation Value	Areas Critical for Maintaining the Cultural Identity of Local Communities (HCV 6)
Qualifying Attribute	Cultural and religious sites of importance to local communities
Focal Area	Sites where cultural artifacts are found, or religious celebrations and rituals are undertaken.

4.1.4 Without-Project Scenario: Community (CM1.3)

Project areas are selected to focus on those villages and customary communities that would not be able to implement their social forest management plans without the project because of the barriers described in Section 2.2.3. None of the initial project villages identified any government or private sector initiatives that they expected to significantly impact their well-being in the future. As a result, village representatives expected the well-being of the village communities to stay the same (Tanjung and Nanga Betung), decline (Penepian Raya and Nanga Jemah), or show very minimal improvement (Sri Wangi) in the absence of the project.¹⁴

The effects of deforestation and degradation expected to occur under the without-project scenario (see also Section 3.1.1) include:

- Disruption of activities from landslides, flooding and reduction in soil fertility – the project zone has high rainfall and much sloping land, some steeply sloping (see Section 2.1.3). Deforestation increases the likelihood of landslides under these conditions, due to the absence of forest vegetation to absorb rainfall and reduce soil impact, and the absence of healthy root systems to hold the soil together. In areas affected by deforestation, soil loss and slope failure are likely and increased frequency and magnitude of flooding can be anticipated;
- Increased incidence of sickness and disease from a reduction in water quality and availability – deforestation and forest degradation affect the quantity and quality of water available. With reduced access to clean water for drinking and washing may come an increase in food contamination and water borne diseases; and
- Reduced access to food because of reductions in soil fertility, increase in plant pests and loss and degradation of forest ecosystems – deforestation and forest degradation directly impact the availability of timber and non-timber forest products, generate erosion and reduce soil fertility that affects potential for cultivating crops, and harms natural predators that help control pest species that can affect planted crops.

4.2 Net Positive Community Impacts

4.2.1 Expected Community Impacts (CM2.1)

In addition to the benefits of maintained and improved access to a broad range of ecosystem services supported by the Social Forestry areas (see Section 4.2.4), and opportunities for paid employment for members of the Social Forestry area management committees (Activity 1.1) and forest patrol and monitoring and forest fire prevention and control teams (Activities 2.1 and 2.2), the following project

activities are expected to directly benefit the livelihoods and well-being of members of the project village communities (see Section 2.1.8):

- **Activity 3.1** Rehabilitating the degraded areas within the village forest and outside using agroforestry approach
- **Activity 4.1** Establishing and supporting livelihood activity groups (KUPS)
- **Activity 4.2** Community resilience capacity development
- **Activity 6.1** Improving and providing support of human resources within the local community

An Environmental and Social Impact Assessment conducted with input from all potentially affected groups in the initial project villages¹⁶ identified some groups whose livelihood activities could be negatively affected by project activities (see Section 2.1.12). These groups will be targeted by land rehabilitation and livelihood development activities (Outputs 3 and 4) to ensure that any opportunity costs encountered will be outweighed by the benefits of project activities.

A summary of the expected impacts of the project on different community groups is provided in the tables below.

Community Group	Farmers whose only land is within the Social Forestry areas
Impact(s)	Improved access to ecosystem services, employment opportunities, and educational opportunities.
Type of Benefit/Cost/Risk	The project does not aim to restrict the activities of households whose only land is within the Social Forestry areas, so no negative impacts from the project are expected. Members of this group may benefit from an increase in agroforestry trees on their land (Activity 3.1), increased access to employment opportunities (Activities 1.1, 2.1 and 2.2) and access to the university scholarships scheme (Activity 6.1).
Change in Well-being	Maintenance or improvement of well-being

Community Group	Farmers with land outside the Village Forest
Impact(s)	Improved access to ecosystem services, increased food production and income from improved and alternative livelihood activities, increased employment and educational opportunities.
Type of Benefit/Cost/Risk	The project aims to prevent the re-opening of fields in the Social Forestry areas by households that have land outside the Social Forestry areas. There is, therefore, a potential opportunity cost to these households from the project activities. Livelihood development activities that outweigh the opportunity costs of foregone agricultural expansion will therefore be targeted at these households (Activities 4.1 and 4.2). Members of this may group also benefit from an increase in agroforestry trees on their land (Activity 3.1), increased access to employment opportunities (Activities 1.1, 2.1 and 2.2) and access to the university scholarships scheme (Activity 6.1).

Change in Well-being	Maintenance or improvement of well-being
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Community Group	Gold miners
Impact(s)	Improved access to ecosystem services, increased income from improved and alternative livelihood activities, increased employment and educational opportunities.
Type of Benefit/Cost/Risk	Gold mining is practiced in three of the initial project villages. There is a risk that livelihoods and well-being will be negatively impacted by the project, if gold mining is restricted. Livelihood development activities (Activities 4.1 and 4.2) will therefore target those households whose gold mining activities are restricted by project activities, with the aim of providing improved or alternative livelihood activities that outweigh the opportunity cost of foregone gold mining. Members of this may group also benefit from an increase in agroforestry trees on their land (Activity 3.1), increased access to employment opportunities (Activities 1.1, 2.1 and 2.2) and access to the university scholarships scheme (Activity 6.1).
Change in Well-being	Maintenance or improvement of well-being

Community Group	Timber harvesters
Impact(s)	Improved access to ecosystem services, increased income from improved and alternative livelihood activities, increased employment and educational opportunities.
Type of Benefit/Cost/Risk	There are around 25 households that harvested timber from the initial project areas prior to start of the project, some of which come from outside the project villages. The project aims to continue the enforcement of regulations on timber harvesting within Social Forestry areas and to reduce the need for harvesting timber from Social Forestry areas by planting timber trees in farmlands outside the Social Forestry areas, which will provide a source of timber after around 15 years. There is, therefore, a potential opportunity cost to the households whose timber harvesting activities are restricted by the project activities. Livelihood development activities (Activities 4.1 and 4.2) will target those households whose timber harvesting activities are restricted by project activities, with the aim of providing improved or alternative livelihood activities that outweigh the opportunity cost of foregone timber harvesting. Members of this may group also benefit from an increase in agroforestry trees on their land (Activity 3.1), increased access to employment opportunities (Activities 1.1, 2.1 and 2.2) and access to the university scholarships scheme (Activity 6.1).

Change in Well-being	Maintenance or improvement of well-being
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Community Group	Hunters from within the project village communities
Impact(s)	Improved access to ecosystem services, increased income from improved and alternative livelihood activities, increased employment and educational opportunities.
Type of Benefit/Cost/Risk	The project aims to limit the species and number of animals that can be hunted by members of the project village communities both within and outside the Social Forestry areas. There is, therefore, a risk that livelihoods and well-being of hunters will be negatively impacted by the project, if their hunting activities are restricted. Livelihood development activities (Activities 4.1 and 4.2) will therefore target those households whose timber harvesting activities are restricted by project activities, with the aim of providing improved or alternative livelihood activities that outweigh the opportunity cost of foregone hunting. Members of this may group also benefit from an increase in agroforestry trees on their land (Activity 3.1), increased access to employment opportunities (Activities 1.1, 2.1 and 2.2) and access to the university scholarships scheme (Activity 6.1).
Change in Well-being	Maintenance or improvement of well-being

Community Group	Hunters from outside the project village communities
Impact(s)	No impact
Type of Benefit/Cost/Risk	The project aims to prevent all hunting within the Social Forestry areas by individuals from outside the project village communities. It is expected that these hunting activities will be displaced to other forest areas outside the project villages, so no negative impacts on livelihoods or well-being are expected.
Change in Well-being	No change

4.2.2 Negative Community Impact Mitigation (CM2.2)

An Environmental and Social Impact Assessment conducted with the initial project villages¹⁶ identified that activities to protect the Social Forestry areas from threats (Output 2) could have negative impacts on the well-being of community groups whose livelihood activities are restricted by the development and enforcement of regulations on the use of land and resources within the Social Forestry areas. The groups affected and the measures in place to mitigate negative well-being impacts are described in Sections 2.1.12 and 4.2.1. Livelihood development and improvement activities (Output 4) will target those community members whose livelihoods are negatively impacted by project activities, with the aim of mitigating any loss of income from those livelihood activities that are restricted. Following the precautionary principle, it will be assumed that all potential opportunity costs must be outweighed by

benefits from project activities. The project's stakeholder engagement mechanism (see Section 2.3), that includes village facilitators, monthly, quarterly and annual meetings, is also designed to ensure that any unanticipated negative impacts on communities are identified early, so that project activities can be adjusted where necessary.

The project area includes the following high conservation values related to communities (see Section 4.1.3):

- Areas Important for the Provision of Water for Downstream Communities (HCV 4.1)
- Areas Important for the Prevention of Erosion (HCV 4.2)
- Natural Areas Critical for Meeting the Basic Needs of Local People (HCV 5)
- Areas Critical for Maintaining the Cultural Identity of Local Communities (HCV 6)

Since all project activities aim to protect and enhance the natural ecosystems that support these high conservation values, their implementation is consistent with the precautionary principle as they aim to prevent and reverse ecosystem degradation.

4.2.3 Net Positive Community Well-Being (CM2.3, GL1.4)

Under the without-project scenario, well-being of all the initial project communities is expected to stay the same, decline or show very minimal improvement (see Section 4.1.4). Project activities aim to maintain and improve access to a range of high conservation values that benefit communities (see Section 4.1.3) as well as increase food production and income generation from existing and alternative livelihood activities (Output 4), increase the number of trees within the landscape through agroforestry (Activity 3.1) and provide increased access to employment and educational opportunities (Activities 1.1, 2.1, 2.2 and 6.1). These livelihood improvement activities will be targeted at those households whose livelihood activities could be negatively impacted by project activities, as well as the broader community, to ensure that all groups experience net-positive well-being impacts. Institutional strengthening of Social Forestry Management Committees (Activity 1.1) is also expected to increase the capacity of project village communities to pursue their own initiatives outside the project, if they choose to do so.

4.2.4 High Conservation Values Protected (CM2.4)

HCVs related to community well-being are not expected to be negatively affected by the project, and project activities are designed to maintain and enhance these HCVs, as summarized below.

Areas Important for the Provision of Water for Downstream Communities (HCV 4.1) and Areas Important for the Prevention of Erosion (HCV 4.2)

By protecting forests from deforestation and forest degradation expected in the without-project scenario (see Section 2.2.1) and restoring forest within Social Forestry areas, the project will help to maintain the quality and quantity of water used by local communities from natural sources such as springs, waterfalls, rivers, streams and dams. The maintenance of a healthy forest canopy will help prevent soil erosion, including landslides, on steep slopes, which would exacerbate flood risk and threaten settlements and agricultural areas used by local communities.

Natural Areas Critical for Meeting the Basic Needs of Local People (HCV 5)

Natural ecosystems within Social Forestry areas are used by local communities for gathering and cultivating food including shoots, fruits, fish, and vegetables; collecting firewood and medicinal plants;

harvesting timber for local use; and gold mining. Collection of NTFPs including medicinal plants, fodder for livestock and fish, firewood, and rattan for traditional crafts will not be negatively affected by the project. Forest protection activities (Outputs 1 and 2) will indirectly protect these HCVs. Sustainable NTFP collection is allowed within Social Forestry areas, provided it is in line with area's Business Plan. The project will support land rehabilitation through agroforestry (Activity 3.1), which will provide an alternative supply of timber. The community's fishing areas will not be directly affected by project activities, but will indirectly benefit as activities that protect the village forest upstream will indirectly contribute to the health of the river downstream.

Project activities will prevent expansion of farming inside the Social Forestry areas and require a cessation of hunting of protected species in line with the community's obligations under their Social Forestry agreements. Hunting of species that are not threatened can continue in the project zone at a sustainable level. Project livelihood activities (Output 4) are intended to replace hunting of threatened species by providing protein for household consumption and generating cash income. This HCV will also be protected or enhanced by restricting those community members with access to farmland outside the Social Forestry areas from farming inside these areas, while assisting them to increase their agricultural production (Output 4). Community members whose only farmland is within Social Forestry areas will not have their farming activities restricted by the project.

Areas Critical for Maintaining the Cultural Identity of Local Communities (HCV 6)

HCVs identified by the community of cultural or traditional significance include sites where cultural artifacts are found, or religious celebrations and rituals are undertaken. These sites will not be negatively affected by the project activities. All project activities directly or indirectly focus on protecting and restoring the forest areas that are important for maintaining the cultural identity of local communities, so this HCV will be enhanced by the project.

4.3 Other Stakeholder Impacts

4.3.1 Impacts on Other Stakeholders (CM3.1)

Expected impacts of project activities on community stakeholders including the project area rights holders, and vulnerable groups and other local people within and outside the project villages that may be affected by the project are described in Section 4.2.1. Other stakeholders in the project (see Sections 2.1.6 and 2.1.7) are:

- Government agencies (national, provincial, district, local)
- Civil society organizations
- International organizations
- Private sector organizations
- Media
- Organizations involved in the project
- Research organizations

Project activities are not expected to impact the well-being of these other stakeholders.

4.3.2 Mitigation of Negative Impacts on Other Stakeholders (CM3.2)

Since project activities are not expected to impact the well-being of other stakeholders (see Section 4.3.1), the project does not include any measures to mitigate negative well-being impacts on other stakeholders.

4.3.3 Net Impacts on Other Stakeholders (CM3.3)

Since no negative impacts on the well-being of stakeholders outside the village communities are expected, the project does not intend to monitor the well-being of stakeholders outside the focal village communities. So, net-negative impacts on the well-being of other stakeholders are not anticipated.

4.4 Community Impact Monitoring

4.4.1 Community Monitoring Plan (CM4.1, CM4.2, GL1.4, GL2.2, GL2.3, GL2.5)

An annual household survey will be carried out to monitor community impact throughout the project's lifetime. Indicators that will be assessed in this survey are described in Table 24.

Table 24 Indicators of community impact

Theme	Indicators
Well-being	Total number of community members whose well-being was improved as a result of project activities
	Number of women whose well-being was improved as a result of project activities
High Conservation Values	Project impact on the provision of critical ecosystem services (i.e., hydrological services, erosion control, fire control)
	Project impact on areas that are fundamental for the livelihoods of communities
	Project impact on areas that are critical for the traditional cultural identity of communities
Education	Total number of people for whom access to, or quality of, education was improved because of project activities, measured against the without-project scenario
	Number of women and girls for whom access to, or quality of, education was improved because of project activities, measured against the without-project scenario
	Number of children with net improved education opportunities (girls/boys)
Water	Total number of people who experienced increased water quality and/or improved access to drinking water because of project activities, measured against the without-project scenario

	Number of women who experienced increased water quality and/or improved access to drinking water because of project activities, measured against the without-project scenario
	Number of participants with net improved water access and quality
Income	Numbers of household's net benefits in terms of net income increase through project activities
Empowerment of Women	Number of women net benefitting from empowerment activities

The household survey⁷² will be carried out using a stratified random sampling method to select households. Stratification will be based on the community groups in the initial project villages and identified potentially affected groups in Section 4.2.1. At least 50% (or a maximum of 10) households from each group will be randomly selected for each annual survey.

4.4.2 Monitoring Plan Dissemination (CM4.3)

A summary of monitoring results will be provided annually to each LPHD and published on the Yayasan PRCF Indonesia website. This will be discussed in an annual village meeting open to all community members in each village, and key monitoring results will be displayed as posters within the project villages. Annual meetings with stakeholders will be used as an opportunity to discuss project progress, including monitoring results, challenges, and follow-up activities for the next year based on an adaptive management approach.

4.5 Optional Criterion: Exceptional Community Benefits

4.5.1 Exceptional Community Criteria (GL2.1)

Not applicable

4.5.2 Short-term and Long-term Community Benefits (GL2.2)

Not applicable

4.5.3 Community Participation Risks (GL2.3)

Not applicable

4.5.4 Marginalized and/or Vulnerable Community Groups (GL2.4)

Not applicable

⁷² Socioeconomic Monitoring (SEM) Household Survey Template.

4.5.5 Net Impacts on Women (GL2.5)

Not applicable

4.5.6 Benefit Sharing Mechanisms (GL2.6)

Not applicable

4.5.7 Benefits, Costs, and Risks Communication (GL2.7)

Not applicable

4.5.8 Governance and Implementation Structures (GL2.8)

Not applicable

4.5.9 Smallholders/Community Members Capacity Development (GL2.9)

Not applicable

5 BIODIVERSITY

5.1 Without-Project Biodiversity Scenario

5.1.1 Existing Conditions (B1.1)

The project zone supports a huge diversity of species and ecosystems of international significance, many of which are threatened or endangered. The ranges of 22 animal species (7 Mammal, 8 Bird, 3 Reptile and 4 Insect), 18 plants and 1 fungi that are classified by the IUCN as Critically Endangered or Endangered overlap the project zone and could potentially occur in the project areas (see Table 25 and Table 26).

Table 25 Endangered and Critically Endangered animal species with ranges overlapping the project zone. Source: IBAT (2021)⁷³

Species Name	Common Name	Taxonomic Group
Critically Endangered		
<i>Manis javanica</i> *	Sunda Pangolin	MAMMALIA
<i>Nasalis larvatus</i> *	Proboscis Monkey	MAMMALIA
<i>Pongo pygmaeus</i>	Bornean Orangutan	MAMMALIA
<i>Pycnonotus zeylanicus</i> *	Straw-headed Bulbul	AVES
<i>Rhinoplax vigil</i> *	Helmeted Hornbill	AVES
<i>Manouria emys</i> *	Asian Giant Tortoise	REPTILIA
<i>Orlitia borneensis</i>	Malaysian Giant Turtle	REPTILIA
Endangered		
<i>Catopuma badia</i>	Borneo Bay Cat	MAMMALIA
<i>Cynogale bennettii</i>	Otter Civet	MAMMALIA
<i>Hylobates muelleri</i> *	Bornean Gibbon	MAMMALIA
<i>Lutra sumatrana</i> *	Hairy-nosed Otter	MAMMALIA
<i>Prionailurus planiceps</i>	Flat-headed Cat	MAMMALIA
<i>Berenicornis comatus</i>	White-crowned Hornbill	AVES
<i>Chloropsis sonnerati</i> *	Greater Green Leafbird	AVES
<i>Ciconia stormi</i> *	Storm's Stork	AVES
<i>Geokichla interpres</i>	Chestnut-capped Thrush	AVES
<i>Polyplectron schleiermacheri</i> *	Bornean Peacock-pheasant	AVES
<i>Rhabdotorrhinus corrugatus</i>	Wrinkled Hornbill	AVES
<i>Cuora amboinensis</i> *	Southeast Asian Box Turtle	REPTILIA
<i>Brachygonia ophelia</i>		INSECTA
<i>Metaphya micans</i>		INSECTA
<i>Pachycypha aurea</i>		INSECTA
<i>Podolestes chrysopus</i>		INSECTA

* Species reported in participatory biodiversity assessment in at least one of the initial project areas

⁷³ [Integrated Biodiversity Assessment Tool \(IBAT\) \(ibat-alliance.org\)](https://ibat-alliance.org/) (2021).

Table 26 Endangered and Critically Endangered plant and fungi species with ranges overlapping the project zone.
Source: IBAT (2021)⁷³

Species Name	Taxonomic Group
Critically Endangered	
<i>Shorea macrantha</i>	PLANTAE
Endangered	
<i>Hopea altocollina</i>	PLANTAE
<i>Hopea megacarpa</i>	PLANTAE
<i>Vatica globosa</i>	PLANTAE
<i>Cotylelobium burckii</i>	PLANTAE
<i>Hopea semicuneata</i>	PLANTAE
<i>Shorea elliptica</i>	PLANTAE
<i>Aquilaria microcarpa</i>	PLANTAE
<i>Heritiera globosa</i>	PLANTAE
<i>Pseudosindora palustris</i>	PLANTAE
<i>Alpinia hansenii</i>	PLANTAE
<i>Epiamomum pungens</i>	PLANTAE
<i>Burbridgea pauciflora</i>	PLANTAE
<i>Amomum stenosphon</i>	PLANTAE
<i>Etlingera kenyalang</i>	PLANTAE
<i>Hedychium lineare</i>	PLANTAE
<i>Plagiostachys crocydocalyx</i>	PLANTAE
<i>Zingiber porphyrosphaerum</i>	PLANTAE
<i>Calostoma insigne</i>	FUNGI

Biodiversity in each of the initial project areas was described with a Participatory Biodiversity Assessment,¹⁴ which demonstrated that these project areas support a diverse range of mammal, bird, reptile, and amphibian species. The project village communities have a deep understanding of the forest in their village land and were able to recognize a broad range of species using a visual guide. Each village identified between 27 and 40 mammal species, 31 to 96 bird species and 34 to 75 reptile and amphibian species that have been seen recently in the village forest areas. Many of these are included in the IUCN Red List of threatened and endangered species (see Table 27). These include five species that are listed as critically endangered: Pangolin (*Manis javanica*), Helmeted Hornbill (*Rhinoplax vigil*), Straw-headed Bulbul (*Pycnonotus zeylanicus*), Asian Giant Softshell Turtle (*Pelochelys cantorii*) and Asian Giant Tortoise (*Manouria emys*); and 17 species listed as endangered: Proboscis Monkey (*Nasalis larvatus*), Bornean Gibbon (*Hylobates muelleri*), Banded Langur (*Presbytis melalophos*), Slow Loris (*Nycticebus coucang*), Hairy-Nosed Otter (*Lutra sumatrana*), Tembadau (*Bos javanicus*), Bornean Peacock-pheasant (*Polyplectron schleiermacheri*), White-crowned Hornbill (*Berenicornis comatus*), Wrinkled Hornbill (*Rhabdotorrhinus corrugatus*), White-rumped Woodpecker (*Meiglyptes tristis*), Storm's Stork (*Ciconia stormi*), Greater Green Leafbird (*Chloropsis sonnerati*), Milky Stork (*Mycteria cinerea*), Bornean Rainbow Toad (*Ansonia latidisca*), Malayan Box Turtle (*Cuora amboinensis*), Spiny Turtle (*Heosemys spinosa*), and Black Marsh Turtle (*Siebenrockiella crassicolis*).

The species reported also included the following species that are range restricted and/or protected by Indonesian Law:

Mammals: Bornean Gibbon (*Hylobates muelleri*), Proboscis Monkey (*Nasalis larvatus*), Red Leaf Monkey (*Presbytis rubicunda*), Western Tarsier (*Taricus bancanus*), White-Fronted Langur (*Presbytis frontata*), Banded Langur (*Presbytis melalophos*), Slow Loris (*Nycticebus coucang*), Pangolin (*Manis javanica*), Sun Bear (*Helarctos malayanus*), Hairy-Nosed Otter (*Lutra sumatrana*), Binturong (*Arctictis binturong*), Bornean Yellow Muntjac (*Muntiacus atherodes*), Bornean Red Muntjac (*Muntiacus muntjac*), Lesser Mouse-Deer (*Tragulus javanicus*), Greater Mouse-Deer (*Tragulus napu*).

Birds: Oriental Darter (*Anhinga melanogaster*), Bushy-crested Hornbill (*Anorrhinus galeritus*), Oriental Pied Hornbill (*Anthracoceros albirostris*), Black Hornbill (*Anthracoceros malayanus*), Great Argus (*Argusianus argus*), Jerdon's Baza (*Aviceda jerdoni*), Black Baza (*Aviceda leuphotes*), White-crowned Hornbill (*Berenicornis comatus*), Rhinoceros Hornbill (*Buceros rhinoceros*), Short-toed Coucal (*Centropus rectunguis*), Lesser Green Leafbird (*Chloropsis cyanopogon*), Greater Green Leafbird (*Chloropsis sonnerati*), Storm's Stork (*Ciconia stormi*), Javan Cochoa (*Cochoa azurea*), Chinese Egret (*Egretta eulophotes*), Common Hill Myna (*Gracula religiosa*), Brahminy Kite (*Haliastur indus*), Waterfall Swift (*Hydrochous gigas*), Grey-headed Fish Eagle (*Ichthyophaga ichthyaetus*), Bulwer's Pheasant (*Lophura bulweri*), Yellow-throated Hanging-parrot (*Loriculus pusillus*), Bat Hawk (*Macheiramphus alcinus*), Golden-whiskered Barbet (*Magalaima chrysopogon*), Milky Stork (*Mycteria cinerea*), Eurasian Curlew (*Numenius arquata*), Javan Scops-owl (*Otus angelinae*), Osprey (*Pandion haliaetus*), Western Hooded Pitta (*Pitta sordida*), Crested Jay (*Platylophus galericulatus*), Malay Black Magpie (*Platysmurus leucopterus*), Bornean Peacock-pheasant (*Polyplectron schleiermacheri*), Red-breasted Parakeet (*Psittacula alexandri*), Wrinkled Hornbill (*Rhabdotorrhinus corrugatus*), Helmeted Hornbill (*Rhinoplax vigil*), Hook-billed Bulbul (*Setornis criniger*), Arctic Jaeger (*Stercorarius parasiticus*), Blue-naped Parrot (*Tanygnathus lucionensis*), Great-billed Parrot (*Tanygnathus megalorhynchus*).

Reptiles: Saltwater Crocodile (*Crocodylus porosus*), Malayan False Ghairal (*Tomistoma schlegelii*)

Table 27 Number of threatened and endangered species reported as occurring within the initial project areas in the year before the start of the project. Source: Damayanti et al. (2021) ¹⁴

Status*	Tanjung	Nanga Jemah	Sri Wangi	Nanga Betung	Penepian Raya
Mammals	36	34	37	40	27
CR	1	1	1	1	1
EN	2	4	4	4	3
VU	11	6	13	14	6
NT	3	1	0	2	1
Birds	53	31	84	96	41
CR	2	1	2	2	0
EN	4	1	2	2	2
VU	4	4	5	5	3

NT	3	2	16	14	4
Herpetofauna	75	42	34	64	44
CR	0	0	1	1	0
EN	0	2	2	3	3
VU	4	3	0	3	3
NT	3	1	1	3	1
TOTAL	164	107	155	200	112

* CR = Critically Endangered, EN = Endangered, VU = Vulnerable, NT = Near Threatened

Current threats to the initial project areas, and to the biodiversity and wildlife habitat they support, were assessed with the Participatory Threat Assessment.¹⁴ A summary of threats identified and their scope, severity and irreversibility are shown in Table 28.

Table 28 Summary of Participatory Threat Assessment results for five Group 1 villages. Source: Damayanti et al. (2021)

Threat	Threat Rating*														
	Tanjung			Nanga Jemah			Sri Wangi			Nanga Betung			Penepian Raya		
	Sc	Se	Ir	Sc	Se	Ir	Sc	Se	Ir	Sc	Se	Ir	Sc	Se	Ir
Farming	●	●	●				●	●	●	●	●	●	●	●	●
Timber extraction (local use)	●	●	●	●	●	●	●	●	●	●	●	●			
Timber extraction (outsiders)	●	●	●				●	●	●				●	●	●
Wildlife hunting	●	●	●	●	●	●	●	●	●						
Mining	●	●	●				●	●	●	●	●	●			
NTFP extraction				●	●	●									
Road construction	●	●	●							●	●	●			

* Scope (Sc) = Extent of village forest affected: All or most (>70%; ●); Much (30-70%; ●); Some (10-30%; ●); Small part (<10%; ●); Severity (Se) = Severity of impact on forest in areas affected Complete deforestation (>70%; ●); Sever degradation (30-70%; ●); Moderate degradation (10-30%; ●); Minimal degradation (<10%; ●); Irreversibility (Ir) = Time needed to reverse effects in affected areas: >100y (●); 20-100y (●); 5-20y (●) <5y (●).

5.1.2 High Conservation Values (B1.2)

High Conservation Values for biodiversity were identified using a participatory process of discussion and mapping with the initial project village communities, with expert input from PRCF Indonesia and TLLG.¹⁴ Maps showing the locations of these HVCs are provided in Section 2.1.5 (Figure 10 to Figure 14). Similar maps will be produced for all villages that join the project to identify focal areas that need to be managed to maintain and enhance HCVs.

High Conservation Value	Critically Endangered Species (HCV 1.2)
Qualifying Attribute	Critically Endangered species present in the initial project areas include Pangolin (<i>Manis javanica</i>), Helmeted Hornbill (<i>Rhinoplax vigil</i>), Straw-headed Bulbul (<i>Pycnonotus zeylanicus</i>), Asian Giant Softshell Turtle (<i>Pelochelys cantorii</i>) and Asian Giant Tortoise (<i>Manouria emys</i>)
Focal Area	Primary and secondary forest within the social forestry areas that provides habitat for Critically Endangered species.

High Conservation Value	Areas that Contain Habitat for Viable Populations of Endangered, Restricted Range or Protected Species (HCV 1.3)
Qualifying Attribute	In addition to the Critically Endangered species listed under HCV 1.2 the following Endangered species are also found in the initial project areas: Proboscis Monkey (<i>Nasalis larvatus</i>), Bornean Gibbon (<i>Hylobates muelleri</i>), Banded Langur (<i>Presbytis melalophos</i>), Slow Loris (<i>Nycticebus coucang</i>), Hairy-Nosed Otter (<i>Lutra sumatrana</i>), Tembadau (<i>Bos javanicus</i>), Bornean Peacock-pheasant (<i>Polyplectron schleiermacheri</i>), White-crowned Hornbill (<i>Berenicornis comatus</i>), Wrinkled Hornbill (<i>Rhabdotorrhinus corrugatus</i>), White-rumped Woodpecker (<i>Meiglyptes tristis</i>), Storm's Stork (<i>Ciconia stormi</i>), Greater Green Leafbird (<i>Chloropsis sonnerati</i>), Milky Stork (<i>Mycteria cinerea</i>), Malayan Box Turtle (<i>Cuora amboinensis</i>), Bornean Rainbow Toad (<i>Ansonia latidisca</i>), Spiny Turtle (<i>Heosemys spinosa</i>), and Black Marsh Turtle (<i>Siebenrockiella crassicolis</i>) The following species that are range restricted and/or protected by Indonesian law are also thought to occur in the project area: Mammals: Red Leaf Monkey (<i>Presbytis rubicunda</i>), Western Tarsier (<i>Taricus bancanus</i>), White-Fronted Langur (<i>Presbytis frontata</i>), Sun Bear (<i>Helarctos malayanus</i>), Binturong (<i>Arctictis binturong</i>), Bornean Yellow Muntjac (<i>Muntiacus atherodes</i>), Bornean Red Muntjac (<i>Muntiacus muntjac</i>), Lesser Mouse-Deer (<i>Tragulus javanicus</i>), Greater Mouse-Deer (<i>Tragulus napu</i>) Birds: Oriental Darter (<i>Anhinga melanogaster</i>), Bushy-crested Hornbill (<i>Anorrhinus galeritus</i>), Oriental Pied Hornbill (<i>Anthracoceros albirostris</i>), Black Hornbill (<i>Anthracoceros malayanus</i>), Great Argus (<i>Argusianus argus</i>), Jerdon's Baza (<i>Aviceda jerdoni</i>), Black Baza (<i>Aviceda leuphotes</i>),

	Rhinoceros Hornbill (<i>Buceros rhinoceros</i>), Short-toed Coucal (<i>Centropus rectunguis</i>), Lesser Green Leafbird (<i>Chloropsis cyanopogon</i>), Javan Cochoa (<i>Cochoa azurea</i>), Chinese Egret (<i>Egretta eulophotes</i>), Common Hill Myna (<i>Gracula religiosa</i>), Brahminy Kite (<i>Haliastur indus</i>), Waterfall Swift (<i>Hydrochous gigas</i>), Grey-headed Fish Eagle (<i>Ichthyophaga ichthyaetus</i>), Bulwer's Pheasant (<i>Lophura bulweri</i>), Yellow-throated Hanging-parrot (<i>Loriculus pusillus</i>), Bat Hawk (<i>Macheiramphus alcinus</i>), Golden-whiskered Barbet (<i>Magalaima chrysopogon</i>), Milky Stork (<i>Mycteria cinerea</i>), Eurasian Curlew (<i>Numenius arquata</i>), Javan Scops-owl (<i>Otus angelinae</i>), Osprey (<i>Pandion haliaetus</i>), Western Hooded Pitta (<i>Pitta sordida</i>), Crested Jay (<i>Platylophus galericulatus</i>), Malay Black Magpie (<i>Platysmurus leucopterus</i>), Bornean Peacock-pheasant (<i>Polyplectron schleiermacheri</i>), Red-breasted Parakeet (<i>Psittacula alexandri</i>), Hook-billed Bulbul (<i>Setornis criniger</i>), Arctic Jaeger (<i>Stercorarius parasiticus</i>), Blue-naped Parrot (<i>Tanygnathus lucionensis</i>), Great-billed Parrot (<i>Tanygnathus megalorhynchos</i>). Reptiles: Saltwater Crocodile (<i>Crocodylus porosus</i>), Malayan False Ghairal (<i>Tomistoma schlegelii</i>) In Indonesia the occurrence of species in an area is treated an indication of a viable population for the purposes of HCV assessment as only a few species have been studied in sufficient detail to determine habitat and population.⁷⁴
Focal Area	Primary and secondary forest within the social forestry areas that provides habitat for Endangered, Vulnerable, restricted range and protected species

High Conservation Value	Areas that Contain Two or More Contiguous Ecosystems (HCV 2.2)
Qualifying Attribute	Potential project areas include adjacent areas of forest that spans an elevational gradient from lowland to submontane and montane forest (see Section 2.1.3).
Focal Area	Contiguous forest areas within social forestry areas that span elevational gradients.

High Conservation Value	Rare or Endangered Ecosystems (HCV 3)
Qualifying Attribute	Forest types in potential project areas include dryland (Dipterocarp) forest, heath forest and swamp forest, all of which are considered endangered ecosystems in Kalimantan. ⁷⁴
Focal Area	Primary dryland, heath, and swamp forest within social forestry areas.

⁷⁴ HCV Toolkit Indonesia (2013) https://www.tropenbos.org/file.php/132/toolkit-hcvf-english-version_final.pdf

5.1.3 Without-project Scenario: Biodiversity (B1.3)

The without-project land use scenario (see Section 2.2.1) includes degradation and loss of wildlife habitat that is expected to impact negatively on the forest dependent species and High Conservation Values described in Sections 5.1.1 and 5.1.2. Current threats to forests and biodiversity in the initial project areas are described in Table 28. Without the project, the village and customary communities managing the social forestry areas lack the capacity to address these threats (see Section 2.2.3), so biodiversity conditions are expected to decline as a result of direct pressures from unsustainable hunting practices and a loss of functionally connected habitat.

5.2 Net Positive Biodiversity Impacts

5.2.1 Expected Biodiversity Changes (B2.1)

Anticipated changes in biodiversity resulting from project activities under the with-project scenario in the project zone and over the project lifetime are described in the tables below.

Biodiversity Element	Population size of threatened indicator species in the social forestry areas. Indicator species will be selected for each project area based on species present, and potential for reliable identification by patrol teams.
Estimated Change	Increased number of observations of indicator species per unit of patrol effort.
Justification of Change	Project activities are expected to contribute to maintenance and enhancement of habitat extent and quality, and reduction in hunting pressure that will benefit forest dependent species. Changes in population sizes will be estimated from number of direct observations and signs of the species recorded per unit of patrol effort.

Biodiversity Element	Number of species making use of the village forest.
Estimated Change	Increased number of species reported as being present within village forests.
Justification of Change	Project activities are expected to contribute to maintenance and enhancement of habitat extent and quality, and reduction in hunting pressure that will benefit forest dependent species. Changes in the number of species making use of the village forests will be assessed with an annual participatory biodiversity assessment, with verification of results by camera trapping and patrol team reports.

Biodiversity Element	Extent and quality of forest habitat.
Estimated Change	Increased extent and improved quality of natural forest present within village forests.

Justification of Change	Project activities are expected to contribute to maintenance and enhancement of habitat extent and quality. Changes in forest area and condition will be assessed through analysis of land cover maps produced by the Ministry of Environment and Forestry. ⁶⁴
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5.2.2 Mitigation Measures (B2.3)

An Environmental and Social Impact Assessment conducted with the initial project villages³¹ identified that support for livelihood activity groups (Activity 4.1) could have the potential to cause negative impacts on biodiversity if agricultural intensification leads in created use of chemical fertilizers and pesticides, if alien or invasive species are introduced, or if NTFPs are not harvested sustainably. Measures to mitigate potential negative impacts from agricultural inputs and alien or invasive species are described in Sections 5.2.6, 5.2.7 and 5.2.9. The importance of sustainable harvesting will be at the core of any livelihood activities that rely on extraction of NTFPs, and Standard Operating Procedures will be developed to mitigate the risk that overharvesting could negatively impact biodiversity. The risk of project activities causing negative impacts on biodiversity is, therefore, low.

As livelihood activities are developed (Activity 4.1), a targeted environmental and social impact assessment following IUCN guidance⁷⁵ will be carried out to identify potential threats to biodiversity. If substantial risks that cannot be avoided or fully mitigated are identified, alternative livelihood options will be explored. Following the precautionary principle, if potential impacts are unknown and risks cannot be fully assessed the activities will not be implemented.

The project area includes the following high conservation values related to biodiversity (see Section 5.1.2):

- Critically Endangered Species (HCV 1.2)
- Areas that Contain Habitat for Viable Populations of Endangered, Restricted Range or Protected Species (HCV 1.3)
- Areas that Contain Two or More Contiguous Ecosystems (HCV 2.2)
- Rare or Endangered Ecosystems (HCV 3)

Since all project activities aim to protect and enhance the natural ecosystems that support these high conservation values, their implementation is consistent with the precautionary principle as they aim to prevent and reverse ecosystem degradation.

5.2.3 Net Positive Biodiversity Impacts (B2.2, GL1.4)

The without-project land use scenario includes degradation and loss of wildlife habitat that is expected to impact negatively on the forest dependent species and High Conservation Values (see Section 5.1.3). The project activities aim to maintain and enhance habitat quality, quantity and connectivity and reduce direct pressures on wildlife from hunting. By providing support for the establishment and functioning of strong forest management institutions for the project areas in the form of LPHD, the project will

⁷⁵ IUCN (2020) Environmental and Social Impact Assessment (ESIA) Guidance Note.
<https://www.iucn.org/sites/default/files/2022-05/esms-environmental-and-social-impact-assessment-esia-guidance-note.pdf>

significantly improve the management of all forest (total of 7,483 ha) in these areas for biodiversity conservation. A positive impact on biodiversity is therefore expected.

Project activities are expected to assist biodiversity to adapt to the probable impacts of climate change by maintaining and increasing the amount of functionally connected habitat that will assist with movement of species in response to changing climatic conditions.

5.2.4 High Conservation Values Protected (B2.4)

The project activities are designed to maintain and enhance the HCVs identified in Section 5.1.2. Activities with potential to negatively impact HCVs related to biodiversity and measures in place to mitigate these risks are described in Section 5.2.2. No negative impacts on HCVs related to biodiversity are, therefore, expected.

5.2.5 Species Used (B2.5)

Project activities include rehabilitating degraded areas within and outside social forestry areas with an agroforestry approach (Activity 3.1) The species that will be planted for this activity are listed below:

- Binsul (*Sterculia macrophylla*)
- Cempedak (*Artocarpus integer*)
- Coffee (*Coffea* spp)
- Durian (*Durio* spp)
- Jengkol (*Archidendrum pauciflorum*)
- Kawi (*Shorea balangeran*)
- Kayu Taun (*Carallia bracteate*)
- Keladan (*Dryobalanops oblongifolia*)
- Kelansau (*Dryobalanops* spp)
- Langsat (*Lansium domesticum*)
- Meranti merah (*Shorea leprosula*)
- Merant (*Shorea* spp)
- Petai (*Parkia speciosa*)
- Putat (*Barringtonia acutangula*)
- Resak (*Vatica* spp)
- Tekam (*Hopea* spp)
- Tembesu (*Cyrtophyllum fragrans*)

Other species that may be used in livelihood development activities (Activity 4.1) will be confirmed as the project activities are further developed, and any tree, agricultural crop, livestock or fish species used will be subject to a targeted environmental and social impact assessment following IUCN Guidelines⁷⁵ to ensure that selected species will not have an adverse impact on biodiversity. The species used will be listed in Monitoring Reports.

5.2.6 Invasive Species (B2.5)

Project activities that could potentially lead to the introduction of invasive species are:

- **Activity 3.1** Rehabilitating the degraded areas within the village forest and outside using agroforestry approach
- **Activity 4.1** Establishing and supporting livelihood activity groups (KUPS)

None of the species listed in Section 5.2.5 are recorded in the Global Invasive Species Database.⁷⁶ Other species that may be used in livelihood development activities (Output 4) will be confirmed as the project activities are further developed, and any tree, agricultural crop, livestock or fish species used will be subject to a targeted environmental and social impact assessment to ensure that selected species will not have an adverse impact on biodiversity.

Prior to the initiation of livelihood development activities (Output 4) a targeted environmental and social impact assessment will be carried out to determine whether any species introduced have a risk of becoming invasive. This will include screening of species to exclude any non-native species that threaten ecosystems, habitats or species in the Project Zone as identified in the Global Invasive Species Database, from scientific literature and from local knowledge. If any risk is identified, the invasive species will be replaced with an alternative that is non-invasive.

5.2.7 Impacts of Non-native Species (B2.6)

All of the species that will be used for forest rehabilitation activities (Output 3) are native to the project zone, except for coffee. The table below provides a justification for the use of this species and a description of any possible adverse effects on the region's environment.

Species	Coffee (Coffea spp)
Justification of Use	Provides a cash crop that cannot be obtained from native species.
Potential Adverse Effect	Intensive cultivation of coffee can lead to environmental degradation if there are high levels of pesticide and/or fertilizer use, or if plantations are reliant on irrigation. This can lead to increased soil acidity and hospitality to nematodes and plant diseases. The agroforestry systems established through the project are not expected to experience these negative impacts as there will be no use of chemical pesticides or fertilizers, and agroforestry areas will not be irrigated.

Prior to the initiation of livelihood development activities (Output 4), a targeted environmental and social impact assessment will be carried out to ensure that the use of any non-native species is justified over the use of native species, and that they do not present a risk to the region's environment, including through impacts on native species and disease introduction or facilitation. Risks considered will include potential for avian flu and swine disease introduction and facilitation if activities that involve these livestock species are considered. All non-native species used will be identified in Monitoring Reports and justification for use and description of potential adverse effects will be provided.

⁷⁶ Global Invasive Species Database <http://www.iucngisd.org/gisd/>

5.2.8 GMO Exclusion (B2.7)

None of the trees that will be planted for forest restoration activities (Output 3) are genetically modified. All seedlings and seeds used will be sourced from natural forest areas or secured from government-certified nurseries.

5.2.9 Inputs Justification (B2.8)

Project activities with potential for the use of fertilizers, chemical pesticides and other inputs with potentially adverse effects on the region's environment and/or communities are:

- **Activity 3.1** Rehabilitating the degraded areas within the village forest and outside using agroforestry approach
- **Activity 4.1** Establishing and supporting livelihood activity groups (KUPS)

No use of potentially harmful inputs is planned for forest rehabilitation activities (Output 3). Livelihood development activities (Output 4) are likely to involve the use of organic fertilizers. Justification for the use of organic fertilizers and potential adverse effects are described in the table below. Any other inputs needed for livelihood development activities will be determined as the activities are developed and will be subject to a targeted environmental and social impact assessment to ensure their use is justified and that there are no potential adverse effects on the region's environment and/or communities. Any potentially harmful inputs will be identified in Monitoring Reports with a justification for their use and description of any potential adverse effects and how these will be mitigated.

Name	Organic fertilizer made from compost
Justification of Use	Applied to increase productivity in agricultural areas to ensure community livelihood needs can be met outside of the Village Forest.
Potential Adverse Effect	No adverse effects expected on environment or communities expected

5.2.10 Waste Products (B2.9)

Project activities with potential to generate waste products are forest rehabilitation, livelihood development activities (Outputs 3 and 4), and general activities associated with project implementation, such as meetings and events. Establishment of tree nurseries for forest rehabilitation has the potential to generate plastic waste from the use of polythene. Waste products may also be generated from livelihood development activities, such as from agriculture and livestock. Project meetings and events could generate plastic waste from single use bottles and utensils, and plastic bags.

The potential for livelihood development activities to generate waste will be assessed prior to the implementation of these activities. Any processes needed for identifying, classifying and managing waste products will be incorporated into the standard operating procedures for the activity and will be included in Monitoring Reports.

The project will explore the potential for replacing plastic products with biodegradable materials in all project activities, and in the meantime the project promotes avoiding the use of plastic and Styrofoam and collecting and recycling plastic waste when its use occurs. PRCF Indonesia is currently taking steps to reduce the amount of plastic material used in its operations at partner villages under the Social Forestry and Conservation Program and otherwise. Furthermore, PRCF Indonesia is working on defining a proper plastic waste management system so that plastic litter is not burned openly or discarded directly into watercourses. PRCF Indonesia is looking for community-based solutions to manage both recyclable and non-recyclable plastics, and is creating standard operation procedures on the use of single-use plastics, with a focus on avoiding their use and putting into operation effective recycling measures.

5.3 Offsite Biodiversity Impacts

5.3.1 Negative Offsite Biodiversity Impacts (B3.1) and Mitigation Measures (B3.2)

Potential negative impacts of project activities on forest habitat and mitigation measures in place to reduce or eliminate negative impacts are described in Section 3.3. In addition to these, there is the potential that project activities could displace wildlife hunting to forested areas outside the social forestry areas in the project villages and in neighboring villages, generating negative impacts on biodiversity.

The project activities involve enforcement of regulations on hunting within the social forestry areas, with the aim of preventing hunting of endangered or vulnerable species by individuals from within and outside project village communities. There are around 13 households from the initial project villages that hunted within the initial project areas prior to start of the project. Some hunters from outside the project village communities also hunt in the initial project areas.¹⁶ Hunting within the Social Forestry areas has been prevented by enforcement of regulations since 2021 in Nanga Betung and Tanjung Villages, and reinforced in the first initial project villages by the Village Regulations regarding Village Forest Management recently issued in 2023. Potential negative offsite impacts on biodiversity from displacement of hunting and measures in place to mitigate these are summarized in the table below.

Negative Offsite Impact	Mitigation Measure(s)
Displacement of hunting of threatened or endangered species from Social Forestry areas to other forested areas within project villages and neighboring villages (see Section 2.1.5, Figure 5 to Figure 9).	i) Hunters from within the project village communities whose hunting activities will be restricted as a result of project activities will be identified, opportunity costs expected to result from restrictions on hunting will be estimated, and alternative livelihood activities with potential to provide protein and generate additional income and/or resources that are sufficient to outweigh any opportunity costs will be supported by the project. ii) For hunters from outside the project village communities, no specific measures are planned, so some displacement of hunting is expected.

5.3.2 Net Offsite Biodiversity Benefits (B3.3)

A small increase in deforestation and forest degradation outside the project area from displacement of timber harvesting and gold mining activities in the early years of the project, while alternative livelihood activities are developed is expected (see Section 3.3); and there is also potential for negative offsite biodiversity impacts from displacement of hunting (see Section 5.3.1). Measures are in place to mitigate displacement of hunting activities from hunters within the village communities(see Section 5.3.1).

Potential unmitigated negative impacts on biodiversity outside the project villages are therefore from initial displacement of timber harvesting and gold mining activities and displacement of hunting activities by individuals from outside the project village communities. Any displacement of timber harvesting, gold mining and hunting is not expected to exceed the levels of these activities in the without-project scenario, however, so the project is expected to generate an overall reduction in deforestation, forest degradation and hunting pressure (even with some displacement) in addition to the biodiversity benefits from reduced deforestation and forest degradation (see Section 3.2) and forest rehabilitation (Output 3). The net effect of the project on biodiversity is therefore expected to be positive.

Project activities are also expected to have positive offsite biodiversity benefits by increasing habitat extent, quality, and connectivity with adjacent forest areas.

5.4 Biodiversity Impact Monitoring

5.4.1 Biodiversity Monitoring Plan (B4.1, B4.2, GL1.4, GL3.4)

In addition to monitoring of forest extent and condition inside the Social Forestry areas, which are indicators of habitat quality and extent for forest dependent species, forest patrol and monitoring teams will report all observations and signs of indicator species encountered during patrol activities using the Spatial Monitoring And Reporting Tool (SMART).⁵⁴ Camera traps will also be deployed, and an annual participatory biodiversity assessment will be carried out to determine species that have been observed in the Social Forestry areas by community members over the previous year. Indicators that will be assessed are described in Table 29.

Table 29 Indicators for biodiversity monitoring

Indicator	Means of assessment	Analysis
Number of endangered & vulnerable species net benefitting from conserved and restored habitat in project	SMART Patrols and camera traps recording observations and signs of endangered and vulnerable species within the Social Forestry areas.	Subtract the number of endangered and vulnerable species where there are fewer observations and signs per unit of patrol/camera trap effort than in the previous monitoring period from the number of endangered and vulnerable species where there are more observations and signs per unit of patrol/camera trap effort than

Indicator	Means of assessment	Analysis
		in the previous monitoring period.
Number of endangered and vulnerable wildlife signs	SMART Patrols and camera traps recording observations and signs of endangered and vulnerable species within the Social Forestry areas.	Total number of observation and signs of all endangered and vulnerable wildlife species divided by number of patrol hours.

5.4.2 Biodiversity Monitoring Plan Dissemination (B4.3)

A summary of monitoring results will be provided annually to each LPHD and published on the Yayasan PRCF Indonesia website. This will be discussed in an annual village meeting open to all community members in each village, and key monitoring results will be displayed as posters within the project villages. Annual meetings with stakeholders will be used as an opportunity to discuss project progress, including monitoring results, challenges, and follow-up activities for the next year based on an adaptive management approach.

5.5 Optional Criterion: Exceptional Biodiversity Benefits

5.5.1 High Biodiversity Conservation Priority Status (GL3.1)

Not applicable

5.5.2 Trigger Species Population Trends (GL3.2, GL3.3)

Not applicable

APPENDICIES

5.6 Appendix 1: Stakeholder Identification Table

Stakeholder	Rights, Interest and Overall Relevance to the Project
National – Central Government	
1. Ministry of Environment and Forestry of the Republic of Indonesia (MoEF)	The Ministry of Environment and Forestry (MoEF) of the Republic of Indonesia is a government agency at the national level responsible for managing the State Forests in Indonesia. Within the MoEF, there are several directorates directly or indirectly involved in the management of Village Forests, namely the Directorate General of Social Forestry and Environmental Partnership (Ditjen PSKL), the Kalimantan Region Social Forestry and Environmental Partnership Office (BPSKL), the Region VIII Production Forest Management Office (BPHP), the Region III Forest Area Stabilization Office (BPKH), the West Kalimantan Natural Resources Conservation Office (BKSDA), and the Kalimantan Region Law Enforcement Office (Balai Gakkum). MoEF through Social Forestry Program granted rights and or approvals to community groups to manage the State Forests. Even though the management rights have been granted, the supervision of the preservation of the function of the area is still carried out by the MoEF. If the right holders cannot manage the village forests sustainably, MoEF can revoke the rights that have been granted to the community. Therefore, MoEF influence on The the Rimba Collective Project (The Project) is both positive and negative and the influence was scored between high and very high (4 to 5) by FGD participants in five villages. The MoEF's interest in the Social Forestry Program, including village forest management that will be supported through The Project was considered between high and very high, with score 4 to 5, because MoEF would be interested in seeing the village forest managed sustainably. Meanwhile, the impact of The Project to the MoEF was considered positive (■) because some of the tasks and authorities of the MoEF would be assisted by the activities that would be carried out by the LPHDs through the Rimba Collective project to manage existing forests to remain sustainable.
2. Ministry of Agrarian Affairs and Spatial Planning/National	Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (Kemen ATR/BPN) has the task of carrying out government affairs in the field of agrarian/land and spatial planning to assist the President in

Land Agency (Kemen ATR/BPN)	administering state government. Kemen ATR/BPN has a complex organizational structure from national to region (Kantor Wilayah) and district (Kantor Pertanahan). Influence of Kemen ATR/BPN on The Project was rated by FGD participants from Sri Wangi Village only. They discussed and thought the influence of Kemen ATR/BPN on The Project as very low with score of 1.5, while there probably no interest of Kemen ATR/BPN on The Project, so the interest rated low (score 1). Nevertheless, the FGD participants thought The Project will have a positive impact (■) on Kement ATR/BPN, because The Project can support in strengthening the knowledge on village spatial planning and land ownership.
3. The Indonesian Food and Drug Authority (Badan Pengawasan Obat dan Makanan, BPOM)	The Indonesian Food and Drug Authority (BPOM) has the task of carrying out government tasks in the field of drug and food control in accordance with statutory provisions. This is done through preparation of national policies in the field of drug and food control and implementing these through its technical implementation units; preparation and determination of norms, standards, procedures and criteria in the field of Pre-circulation Supervision and During Circulation Control; implementation of Supervision before Circulation and Supervision during Circulation; coordinate the implementation of drug and food control with central and regional government agencies; provision of technical guidance and supervision in the field of drug and food control; implementation of action against violations of statutory provisions in the field of drug and food control; coordinating the implementation of tasks, coaching, and providing administrative support to all organizational elements within BPOM; management of state property/wealth which is the responsibility of BPOM; supervision of the implementation of tasks within BPOM; and implementation of substantive support to all elements of the organization within BPOM. BPOM Offices (BBPOM, BPOM, and Loka POM) are scattered throughout Indonesia, and the BPOM in charged in Kapuas Hulu District is BBPOM Pontianak. BPOM has influence on The Project in terms of product testing, issuing permits, supervision, and oversight of food and beverages produced by the project communities. FGD participants from Sri Wangi, Nanga Jemah, and Penepian Raya Villages who will have project activities related to food (including honey) and beverages have assessed those potential influence on The Project with very low to low score (1 to 2), and the interest of BPOM to The Project was also rated low (score 2). Nevertheless, The Project is expected to have a positive impact (■) on BPOM, because through The Project activities, communities' knowledge and capacities on food, beverages, and drug safety will be improved and that community business will be developed will comply with regulations, including on food and beverages. This is considered as supporting the implementation of BPOM tasks and function in the village level.

National – Central Government working in the Region/Province	
4. The Kalimantan Region Social Forestry and Environmental Partnership Agency (BPSKL Kalimantan)	The Kalimantan Region Social Forestry and Environmental Partnership Agency (BPSKL Kalimantan) is a technical implementing unit of the Ministry of Environment and Forestry with main task of carrying out activities for preparing social forestry areas, business development and partnerships as well as conflict mapping in the field of Social Forestry and Environmental Partnerships in Kalimantan Region, covering West Kalimantan, Central Kalimantan, South Kalimantan, East Kalimantan, and North Kalimantan Provinces. BPSKL Kalimantan was assessed by FGD participants in five villages as having a positive influence on The Project with medium to very high score of 3.5 to 5, because BPSKL Kalimantan has an influence on the decision to determine Village Forest Areas starting from the time of proposal, verification of Social Forestry proposals, up to empowering community business development in the forest area that the community was given management access. BPSKL Kalimantan's interest in The Project is on The Project supports for the efforts to conserve biological natural resources and their ecosystems as well as to monitor and develop communities in and around the village forest area. Therefore, the interest of BPSKL Kalimantan for The Project was assessed medium to very high with score 3 to 4.6. The potential impact of The Project on BPSKL Kalimantan is that The Project supports social forestry programs through increasing capabilities of the social forestry units, developing community capacity and empowerment in a participatory, just, and environmentally sound manner and is able to create social and economic resilience to external change. The project can support BPSKL Kalimantan in achieving its target on social forestry, therefore The Project has a positive impact (■) on BPSKL Kalimantan.
5. Manggala Agni Fire Control Brigade of BKDS National Park Office (Manggala Agni Brigdalkarhutla BBTNBKDS)	Manggala Agni is an institution tasks with controlling forest and land fires at the local level. This institution is an extension of MoEF in the provinces and structured as an operational region (<i>Daerah Operasi</i>, Daops). Manggala Agni Daops Semitau covered the area of Kapuas Hulu District previously was administered under the Kalimantan Climate Change and Forest and Land Fire Control Office (Balai Pengendalian Perubahan Iklim dan Kebakaran Hutan dan Lahan, Balai PPI KHL Kalimantan). Since 2018 it has been integrated into the administration of Betung Kerihun Danau Sentarum National Park Office (BBTNBKDS) and changed the official name to Manggala Agni Fire Control Brigade of BKDS NPO (Manggala Agni Brigdalkarhutla BBTNBKDS). The Manggala Agni's strategy for implementing its tasks includes intensifying efforts to control forest and land fires (<i>karhutla</i>), strengthening preventive actions at the site level such as by inventory of potential <i>karhutla</i>-prone

	villages, developing the application of land clearing technology without burning (PLTB), and increasing early detection efforts, such as independent and integrated patrols. Based on these tasks, FGD participants in five villages rated the influence of Manggala Agni Brigdalkarhutla BBTNBKDS on The Project is low to medium (score 1 to 3.5) because the institution is supporting the communities and The Project by providing information in the socialization, increasing community capacities in fire prevention, and fire control. Manggala Agni Brigdalkarhutla BBTNBKDS's interest in The Project is potentially expecting there would be no fire events in any of the villages. Therefore, this interest was rated low to medium (score 1 to 3). The Project is expected to have a positive impact (■) on Manggala Agni Brigdalkarhutla BBTNBKDS, because The Project will have activities to prevent forest and land fire, and this will support the achievement of Manggala Agni Brigdalkarhutla BBTNBKDS targets.
Province – Provincial Government	
6. West Kalimantan Provincial Environment and Forestry Service (Dinas Lingkungan Hidup dan Kehutanan Provinsi Kalimantan Barat, DLHK)	West Kalimantan Provincial Environment and Forestry Service (<i>Dinas Lingkungan Hidup dan Kehutanan Provinsi Kalimantan Barat</i>, DLHK) and its subsidiary units, Kapuas Hulu Selatan Forest Management Unit (<i>Kesatuan Pengelolaan Hutan (KPH) Kapuas Hulu Selatan</i>), are the governmental institutions in the provincial level which have the authorities in administering and managing State Forest Areas within the province. DLHK has the authority to oversee the forest management that management rights have been given to the village communities as long as the management rights are valid for 35 years. Similar to MoEF, DLHK have interest in The Project, because The Project will support implementing some of their roles and tasks. Based on these descriptions, the influence of DLHK was assessed medium to very high (score 3.4 to 4.5) by FGD participants in five villages, while their interests to The Project were scored with 3.6 to 4.5. The Project will have positive impacts (■) to DLHK, because as the Project will assist in fulfilling their duties and obligations.
Province – Provincial Government working in the district	
7. Kapuas Hulu Selatan Forest Management Unit (<i>Kesatuan Pengelolaan Hutan (KPH) Kapuas Hulu Selatan</i>)	Kapuas Hulu Selatan Forest Management Unit (<i>Kesatuan Pengelolaan Hutan (KPH) Kapuas Hulu Selatan</i>), is the governmental institutions under the DLHK which have the authorities in administering and managing State Forest Areas within the Kapuas Hulu District. KPH Kapuas Hulu Selatan has the tasks in facilitating, issuing approval and review to workplan of the Social Forestry license holders, issuing legal basis (decree) to of Social Forestry Business Group (<i>Kelompok Usaha Perhutanan Sosial</i>, KUPS) and approval to their business plans. The KPH Kapuas Selatan has interest in The Project because The Project will support implementing some of

	their roles and tasks. Based on these descriptions, FGD participants from five villages rated the influence of KPH as very high (score 4 to 4.5), while their interest to The Project were scored at the same range between 4 to 4.5. The Project will have positive impacts (■) to KPH Kapuas Hulu Selatan, because as the Project will assist in fulfilling their duties and obligations.
District –District Government	
8. Kapuas Hulu District Government	Kapuas Hulu District Government, headed by a Bupati, is the institution that governs at the district level in Kapuas Hulu District. Bupati has the authority to lead all governmental tasks, functions and its subordinate apparatus organizations, such as district secretariate (<i>sekda</i>), district inspectorate (<i>inspektorat daerah</i>), agencies (<i>badan</i>), services (<i>dinas</i>), and sub-district offices (<i>kecamatan</i>) in the district. These district level apparatus organizations are working under and reporting to Bupati. To the residents of a district, Bupati is like a parent. Bupati has influence in almost all kinds of residents' related matters, including in village forest management and projects/programs that support them. Endorsement from Bupati is usually sought for non-governmental programs or projects to be implemented in the district. After obtaining opinions from the relevant district apparatus organization, Bupati can endorse/approve or reject a program or project to be implemented in its jurisdiction. FGD participants in four villages (Tanjung Village did not assess District Government) considered this influence of KH District Government/Bupati on The Project to be medium (score 3 to 3.3). The interest of KH District Government on The Project was rated medium-high, with score 3.6 to 3.8. This was because KH District Government potentially interested in community's improvement by The Project, especially related to community well-being and environment and forest sustainability. The Project is expected to have a positive impact (■) on KH District Government, because The Project can support various aspects of development in the district, particularly community development and forest sustainability, that eventually will support the KH District Government in achieving its development targets.
9. Kapuas Hulu Development Planning Agency (Bappeda KH)	Kapuas Hulu Development Planning Agency (Bappeda KH) is a district apparatus organization in charge of development planning and target in the district. Bappeda KH provides input and endorsement to development planning in the district, including on projects or programs that can support the development of Kapuas Hulu district and increase the performance to achieve the Independent Village Index, Human Development Index, etc.

	For those Bappeda KH functions, FGD participants in five villages have considered the influence of Bappeda KH on The Project as medium to high (score 3 to 4.4). Meanwhile, they agreed that the interest of Bappeda KH in The Project is related with the support that The Project can provide to help achieve the development planning, implementation, various development indices. Therefore, the FGD participants also provide a medium to high score (score 3 to 4.4) for the interest of Bappeda KH in The Project. The Project is thought to have a positive impact (■) on Bappeda KH through The Project activities and funding that will support achievement of various development indices, including Human Development Index. This means The Project supports Bappeda KH in achieving their development targets.
10. Kapuas Hulu District Agency for Disaster Management (BPBD KH)	Kapuas Hulu District Agency for Disaster Management (BPBD KH) is a district apparatus organization in charge of managing disaster, such as flood, landslide, hurricane/typhoon, earthquake, volcano eruption, and forest and land fire. For the latter, BPBD KH also involves in forest and land fire prevention through prevention coordination and training together with other stakeholders. In Kapuas Hulu, the common disasters are flood and forest and land fire, while other disasters are rarely occurred. The potential influence of BPBD KH on The Project was related to BPBD providing training and coordination on disaster management. However, this influence was rated very low to medium (score 1.2 to 3) by FGD participants from four villages (Tanjung Village did not assess BPBD KH). The potential interest of BPBD KH in The Project is mainly on the safety of the village forest from fire that can be supported by The Project and communities. Therefore, this interest was rated with a low score (score 1.8 to 2) by the FGD participants. The Project is thought to have a positive impact (■) on BPBD KH, because The Project through its patrol activities and community engagement can support in achieving zero fire and disaster in the village forest and this means helping BPBD KH to achieve its targets.
11. Kapuas Hulu District Youth, Sports, and Tourism Service (Dinas Pemuda, Olah Raga, dan Pariwisata Kabupaten Kapuas Hulu, Disporapar KH)	Kapuas Hulu District Youth, Sports, and Tourism Service (Dinas Pemuda, Olah Raga, dan Pariwisata Kabupaten Kapuas Hulu, Disporapar KH) is a district apparatus organization that is in charge of tourism affairs in Kapuas Hulu District. One of the Disporapar KH tasks is granting legal permits to the community groups and capacity building on tourism implemented in the respective villages. The influence of Disporapar KH on The Project could be in Disporapar guidance and facilitation to the community tourism groups, This influence was rated very low to medium (score 1.2 to 3.6) by FGD participants in five villages.

	The potential interest of Disporapar KH on The Project is the development of ecotourism potential in forest areas that could be supported or done in cooperation of The Project and project communities. This interest was analyzed as low to medium interest (score 2 to 3.5) by the FGD participants in five villages. The Project is thought to have a positive impact (■) on Disporapar KH, because activities in The Project will promote tourism in the villages and therefore supporting the achievement of Disporapar's work targets.
12. Kapuas Hulu District Community and Village Empowerment Service (Dinas Pemberdayaan Masyarakat dan Desa, DPMD KH)	Kapuas Hulu District Community and Village Empowerment Service (<i>Dinas Pemberdayaan Masyarakat dan Desa</i>, DPMD KH) is a district apparatus organization that is authorized and responsible for the Community Empowerment Program at the district level. This institution has several programs that can support training activities and provide infrastructure for the communities, especially in community empowerment. The influence of DPMD KH on The Project was rated with low to high score (score 2.6 to 4.6) by FGD participants in five villages, because with DPMD's program for community empowerment the village communities gain improved capacities toward independencies and will influence the success of The Project implementation. DPMD KH will have interest in projects or programs that can support the achievement of DPMD's programs, including toward The Project. Therefore, FGD participants in five villages consider the interest of DPMD in The Project as very low to medium (score 1.8 to 3.1). The Project is thought to have a positive impact (■) on DPMD KH, because because activities in The Project will support the achievement of DPMD's work targets.
13. Kapuas Hulu District Agricultural and Food Crops Service (Dinas Pertanian dan Pangan, Distanpan KH)	Agriculture and Food Crops Service of Kapuas Hulu District (Distanpan KH) is a district apparatus organization that is authorized and responsible for the development of agriculture, plantations, livestock, and food crops at Kapuas Hulu district level. This Service has several programs that can support training activities and the provision of agricultural infrastructure for communities. FGD participants in five villages rated the influence of Distanpan KH on Village Forest management activities that will be supported by the Rimba Collective Program as from low-medium (score 2.5) to high (score 4), and its interest was rated from low (scored 2) to very high (score 4.5). The Project will have a positive impact (■) on the Distanpan KH, as The Project activities will support agricultural business development for the communities, and this means helping to achieve some of the tasks of the Distanpan KH.

14. Kapuas Hulu District Environmental Service (Dinas Lingkungan Hidup, DLH KH)	Kapuas Hulu District Environmental Service (<i>Dinas Lingkungan Hidup</i>, DLH KH) is a district apparatus organization authorized to issue Environmental Management Efforts and Monitoring Efforts (UKL-UPL) permits on the development activities that have risks, including when the activities are conducted in the village where some of the village area is village forest area with protection forest areas. The general function of DLH Kapuas Hulu is to monitor the environmental conditions of its jurisdiction, including the village forest area although it will not be direct monitoring, such as water areas, waste, forest and land fire, and others. DLH KH has the influence and authority in issuing permits for Environment Management and Environment Monitoring (UKL-UPL). This is currently not directly related to The Project, however, the FGD participants in five villages thought the influence of DLH KH to The Project was very low to high (score 1.8 to 4). There may be DLH's interest in the monitoring of environmental management throughout the district, including the forest areas, such as in the village forests, for example on the use of water, the waste or how forest and land fire is monitored, etc. This interest when applied to The Project is rated medium to high (score 2.8 to 4) by FGD participants in five villages. DLH KH will indeed have interest in the forest and land fire management in the village forests. The Project will have a positive impact (■) on DLH KH, because activities in The Project will be related to environmental monitoring within the village forests, that results will be informed to the stakeholders, including DLH KH. Through The Project, DLH KH will be supported in term of environmental monitoring within the village forests,
15. Kapuas Hulu District Fishery Service (Dinas Perikanan KH)	Kapuas Hulu District Fishery Service (<i>Dinas Perikanan</i> KH) is a district apparatus organization that is authorized and responsible for fisheries development at the district level. Fisheries Service has several programs that can support capacity building activities and the provision of infrastructure for the community. The Fishery Service was discussed by FGD participants in Tanjung Village. Based on the FGD, the influence of Fishery Service on The Project was rated with a low-medium score (2.7), because this Service provided capacity building and empowerment to the Tanjung community through Fishery Training. The interest of Fishery Service in The Project might to the support that The Project can provide for the community. Therefore, this interest was rated with a score of 2.3. The Project will have a positive impact (■) on the Fishery Service because through project activities some targets of Fishery Service could be supported.

16. Kapuas Hulu District Social, Women Empowerment and Child Protection Service (Dinas Sosial, Pemberdayaan Perempuan dan Perlindungan Anak, Dinsos P3A KH)	Kapuas Hulu District Social, Women <i>Empowerment</i> and Child Protection Service (<i>Dinas Sosial, Pemberdayaan Perempuan dan Perlindungan Anak</i>, Dinsos P3A KH) is a district apparatus organization that is authorized and responsible for social development at the district level. Social Service has several programs that can support training activities and the provision of infrastructure or social assistance for communities. Dinsos P3A KH was discussed in Tanjung Village. The FGD participants include Dinsos P3A KH as one of the stakeholders of The Project for their influence in empowering Tanjung village community through stunting handling and family planning program. This influence on The Project was rated with a high score (4.3) because such community empowerment (e.g., family planning) will have influence in The Project activities to reduce deforestation and forest degradation, and community capacities will be improved in the future when stunting is handled now. The interest of Dinsos P3A KH in The Project is potentially on the ability of The Project in supporting the implementation of Dinsos P3A KH work programs. The interest of Dinsos P3A KH in The Project was rated very low (score 1.3) because The Project activities is not directly involved in such empowerment program (e.g., stunting reduction and family planning). Nevertheless, The Project was thought to have a positive impact (■) on Dinsos P3A KH, because The Project activities will support activities and work programs of Dinsos P3A KH in one or other ways.
17. Kapuas Hulu District Health Service (Dinas Kesehatan, Dinkes KH)	Kapuas Hulu District Health Service (<i>Dinas Kesehatan</i>, Dinkes KH) is a district apparatus organization that is authorized and responsible for the health affairs in the Kapuas Hulu District. The potential influence of Dinkes KH in The Project is through the issuance of permits related to health in The Project activities. This influence of Dinkes on The Project was rated as medium influence (score 3.2) by FGD participants in four villages (Tanjung did not assess this stakeholder). Dinkes KH's interest in The Project is potentially related to the ability of The Project in supporting communities to obtain health permits, such as permits for food and beverages produced by communities through The Project activities, or health facilitations such as to obtain National Health Insurance (BPJS) for communities participating in The Project. This interest of Dinkes KH in The Project is therefore rated with low to medium score (2.5 to 3.3) by FGD participants in four villages (Tanjung did not assess this stakeholder). The Project was thought to have a positive impact (■) on Dinkes KH because The Project activities can support the achievement of Dinkes KH targets through certification to obtain the permits for community products as well as enrollment of community members in BPJS.

18. Kapuas Hulu District Public Works and Spatial Planning Service (Dinas Pekerjaan Umum dan Penataan Ruang, Dinas PUPR KH)	Kapuas Hulu District Public Works and Spatial Planning Service (<i>Dinas Pekerjaan Umum dan Penataan Ruang</i>, Dinas PUPR KH) is a district apparatus organization that carried out local government affairs in the field of spatial planning and development in the fields of public works and lands. The Dinas PUPR KH had influence on The Project in the form of policies and development planning in village areas and district-level spatial policies, as well as in the infrastructure development. This influence was rated high score by FGD participants in Tanjung Village, because The Dinas can influence the infrastructure development in The Project. The FGD participants did not see any interest of Dinas PUPR in The Project, therefore the interest was rated very low (score 1, the minimum score for stakeholder analysis) The Project was thought to have a negative impact (■) in Dinas PUPR, because Dinas PUPR's activities related to developing infrastructure and when it is developed within the village forest, it will open the access to threats to village forest, which will be stopped by The Project.
19. Kapuas Hulu District Cooperative, Small Medium Business and Trade (Dinas Koperasi, Usaha Kecil Menengah dan Perdagangan, Diskup KH)	Kapuas Hulu District Cooperative, Small Medium Business and Trade (Dinas Koperasi, Usaha Kecil Menengah dan Perdagangan, Diskup KH) is a district apparatus organization that is authorized and responsible for the development of Trade, Cooperatives and SMEs at the district level. This institution has several programs that can support training activities and the provision of infrastructure for the community, especially in the development of promotion and marketing of community business products. The influence of Diskup KH on The Project is potentially related to the development of community business and permits. FGD participants in four villages (Tanjung did not assess this stakeholder) rated this influence with score 3.3 to 3.7. The potential interest of Diskup KH in The Project is to ensure that the community business development facilitated by The Project fulfils the requirements for the issuance of the business permits. This interest was rated with scores of 2.9 to 3.4. The Project was thought to have a positive impact (■) on Diskup KH, because The Project will support communities through The Project activities in developing community level-business and obtain the required permits. These activities will support Diskup KH in increasing their target achievement.
20. Kapuas Hulu District Land Office (Kantor Pertanahan KH)	Kapuas Hulu District Land Office (<i>Kantor Pertanahan</i> KH) is a technical implementation unit of Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (Kemen ATR/BPN) in Kapuas Hulu District. This Land Office has a strategic role in management, arrangement, administration, and control over land issues as well as information source of land affairs in the district.

	The influence of Land Office on The Project was discussed by FGD participants in Sri Wangi village. They were aware of the influence of the Land Office in the land certification process through TORA program (Agrarian Reform Program). The FGD participants rated The influence of Land Office on The Project with a low score of 2.3. Meanwhile, the potential interest of the Land Office in The Project was related with village spatial planning and to ensure the community rights over land ownership. This interest was rated with a medium score of 3. The Project was thought to have a positive impact (■) on the Land Office because through The Project activities, community awareness of land ownership will be improved, and therefore supports the achievement of Land Office program.
21. Kapuas Hulu District Inspectorate	The Kapuas Hulu District Inspectorate has the task of supervising the implementation of government affairs in the district, the implementation of guidance on the administration of village government and the implementation of village government affairs. The Kapuas Hulu District Inspectorate in carrying out its duties has several functions, namely: (1) formulation of technical policies in the field of supervision and facilitation of supervision; (2) implementation of internal control over performance and finance through audits, reviews, monitoring and/or evaluation, monitoring and other supervisory activities; (3) implementation of supervision for certain purposes on the assignment of the Regent; (4) implementation of the Inspectorate secretariat; (5) implementation of other tasks assigned by the Regent in accordance with his duties and functions. The KH Inspectorate's influence on The Project was discussed by FGD participants in Sri Wangi village. The potential influence was on providing guidance for sectoral programs in the villages. This influence, however, was rated very low (score 1), as it would not directly influence The Project. The potential interest of KH Inspectorate in The Project was for inventory of projects within the Kapuas Hulu District and was rated with score of 1.5 by FGD participants in Sri Wangi village. Nevertheless, The Project was thought to have a positive impact (■) on KH Inspectorate, because through The Project information on the activities implemented in the village and village forest, the KH Inspectorate could assess and provide feedback on the optimization of The Project within the overall district development programs, and that eventually support the work of Inspectorate.
Sub-district – Sub-district level stakeholder	

22. Sub-district Leadership Coordination Forum (FORKOIMCAM) of Sub-district Mentebah, Boyan Tanjung, and Jongkong	FORKOIMCAM (<i>Forum Koordinasi Pimpinan di Kecamatan</i>) in each sub-district consists of the head of the sub-district (<i>camat</i>), Head of Resort Police (<i>Kapolsek</i>), and Head of Military Rayon Command (<i>Danramil</i>). FORKOIMCAM of Sub-District Mentebah has jurisdiction covering Tanjung Village, FORKOIMCAM of Sub-District Boyan Tanjung is covering Nanga Betung, Sri Wangi, and Nanga Jemah villages, while FORKOIMCAM of Sub-District Jongkong is covering Penepian Raya Village. The forum in each sub-district coordinates regional development. Influence on the project relates to decisions and or support from this forum. The forum's interest is the realization of a safe and prosperous community. The potential influence and interest of FORKOIMCAM in The Project was discussed by FGD participants in five villages toward respective FORKOIMCAM for each village. Their influence on The Project was rated low to medium, with a score of 2.3 to 3.5. Meanwhile, for the interest of FORKOIMCAM in each sub-district was also rated low to medium, with a score from 2.3 to 3.7. The Project will have a positive impact (■) on FORKOIMCAM of three sub-districts, because The Project activities will support the realization of regional development as targeted by the FORKOIMCAMs.
23. Bhayangkara Supervisor for Security and Public Order (Bhayangkara Pembina Keamanan dan Ketertiban Masyarakat, Bhabinkamtibmas)	Local police/<i>Bhayangkara Pembina Keamanan dan Ketertiban Masyarakat</i> (Bhabinkamtibmas) has its main functions fostering public order, fostering self-help security, fostering community policing, and fostering community potential. In relation to the program, Bhabinkamtibmas can cooperate in securing the village forest area through patrol activities. It can also help resolve any problems or conflicts in The Project. The main interest of Bhabinkamtibmas is maintaining public order and security. For the influence of Bhabinkamtibmas on The Project, FGD participants from five villages provided scores of 2.1 to 3.7. Meanwhile, for the interest of Bhabinkamtibmas in The Project, FGD participants from five villages provided scores of 2.1 to 4. The Project will have a positive impact (■) on Bhabinkamtibmas, because The Project can support in fulfilling the functions of Bhabinkamtibmas, especially in village forest areas.
24. Village Superintendent (Bintara Pembina Desa, Babinsa)	Local Army/ <i>Bintara Pembina Desa</i> (Babinsa) aims to develop the territorial area according to the instructions of the Koramil (Military Rayon Command). Babinsa can influence the project in terms of assisting the resolution in case of threats and disasters to the resources in the project area. For this influence, FGD participants from five villages assessed Babinsa to have a low to medium score (2 to 3.5). The interests of Babinsa in The Program are on the assurance of security within the villages and from disasters. These interests were rated with low to high score (2 to 4) by FGD participants from five villages.

	The Project will have a positive impact (■) on Babinsa, because The Project can support Babinsa in achieving its tasks related to security of the village including the village areas.
25. Community Health Center (Puskesmas)	The Community Health Center (Puskesmas) has the task of carrying out some of the duties of the Health Service in the field of public health and implementing health policies to achieve health development goals in its working area in order to support the realization of healthy sub-districts. Puskesmas is a health service facility that organizes community health efforts and individual health efforts at the first level, by prioritizing promotive and preventive efforts, to achieve the highest degree of public health in its working area. In their services, the puskesmas is also supported by a network of health services in the form of supporting Puskesmas (Pustu), mobile Puskesmas, and village midwives. The potential influence of Puskesmas on The Project was discussed in the FGD in Tanjung Village. The potential influence is related to Puskesmas's service for community groups in the village who are participating in The Project activities, including LPHD committee members or patrol team. Puskesmas's influence on The Project was given a score of 2.2 by the FGD participants. Meanwhile, FGD participants did not see any direct interest from Puskesmas in The Project, and therefore they provided a score of 1. The impact of The Project toward Puskesmas was concluded as positive (■), because through The Project activities, some health issues will be minimized, and this will affect the achievement of Puskesmas targeted tasks.
26. Boyan Tanjung Sub-District Customary Leader (Punggawa Boyan Tanjung)	Punggawa is the highest position of the Malay customary institution in Kapuas Hulu. The existence of customary institutions such as temenggung/punggawa plays an important role in the village government structure. The existence of these customary institutions is regulated by the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 18 of 2018 concerning Village Community Institutions and Village Customary Institutions. The punggawa functions to foster customs and customary regulations in the sub-district area. Punggawa Boyan Tanjung was discussed only in FGD in Sri Wangi Village. The FGD participants saw the influence of Punggawa Boyan Tanjung on The Project will be in the problem solving or conflict resolutions related to customary rules when such problems or conflict cannot be handled within the villages. For this influence, FGD participants in Sri Wangi Village rated with very low score (1.5), for the fact that there have been very limited cases that must be solved by involving Punggawa Boyan Tanjung.

	The interest of Punggawa Boyan Tanjung in The Project is potentially on the maintenance of customary rules in the communities and social life in the villages. This interest was rated with a low score of 2.5. The impact of The Project toward Punggawa Boyan Tanjung was concluded as positive (■), because through The Project activities, it is expected that the maintenance of customary rules in the communities and social life in the villages is achieved, and therefore Punggawa Boyan Tanjung is felt supported.
Village – Village level government	
27. Village Consultative Body (Badan Permusyawaratan Desa/ BPD) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Village Consultative Body (Badan Permusyawaratan Desa/ BPD) is part of the village level government that is the partner of the Village Government. It has a function in discussing and approval of village regulation draft, accepting village communities' aspirations, suggestions, feedback on the work of the Village Government, as well as informing them to the Village Government, and conducting supervision on the performance of the Village Head and village government. BPD is the people's representatives in the villages. The potential influence of BPD on The Project is on the approval of project implementation. The village Government will listen to BPD who is representing the whole respective village community when making decision to accept or reject any projects or programs that come into the village. Therefore, FGD participants in five villages rated BPD with high to very high scores (3.8 to 4.9). The interest of BPD in The Project is potentially related with the expectation that The Project will be supporting the village communities in increasing their livelihoods and socioeconomic. This interest was rated with a high to very high score (4.1 to 4.9) by FGD participants in five villages. The impact of The Project toward BPD was concluded as positive (■), because through The Project activities, BPD tasks can be supported.
28. Village Government (Pemerintah Desa, Pemdes) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	The Village Government (Pemerintah Desa) is the lowest level government institution in charge of governing the village and consists of the village head and village officials. The approval of the village head in granting permission for a project or program to run in the village is very important, because rejection by the village head can have an impact on the implementation of the project/program. The village head could also be influenced by the program to issue village regulations that support the program for the benefit of the village community. The village government was involved in the planning and implementation of village forest area management together with LPHD.

	The influence of Village Government on The Project is related to the approval on project implementation and types of activities within The Project. Village Government can become the voice of the village communities for decision making on the activities desired by communities. Therefore, The influence of Village Government on The Project was given a very high score (4.5 to 4.9) by FGD participants in five villages. The interest of Village Government in The Project is potentially related to the ability of The Project in supporting village communities to have a better livelihoods and income improvement through the project activities. This interest was rated by FGD participants in five villages as very high (4.7 to 5). The project was expected to have a positive (■) impact on Village Government, because through The Project activities, the Village Government can be supported with their tasks in improving livelihoods of the communities in their respective village.
Local Communities	
29. Non-resident landowners of lands inside village forests (Pemilik Lahan di dalam HD dari luar desa)	Non-resident landowners of lands inside village forests are residents of other villages who are the heirs of a households that have owned and managed the lands within the village forests for generations or those who were resident landowners but then moved out of the villages and did not sell or hand over the lands to others within the villages (customarily still the owner of the lands). The lands within the village forests are usually farmlands (<i>ladang</i> – for cultivating rice through shifting cultivation), fallow lands or agroforestry farms that combine vegetables and multipurpose tree species. Of five villages, non-residents landowners of lands inside village forests were identified/acknowledged in Tanjung, Nanga Betung, and Nanga Jemah villages during Environmental and Social Impact Assessment FGDs to clarify between rights holders affected people and non-rights holders affected people and added in the Stakeholder Engagement Plan, however, this type of stakeholders was not differentiated from the residents during the Stakeholder Identification and Analysis. Therefore, an additional analysis for this stakeholder type was done by PRCF Indonesia team. According to PRCF Indonesia, the non-resident landowners of lands inside village forests potentially have negative influence on The Project through reopening of the lands for cultivation. The score given by PRCF Indonesia on the influence non-resident landowners of lands inside village forests on The Project was score 3. PRCF Indonesia thought that the potential interest of the non-resident landowners of lands inside village forests in The Project was related with the acknowledgment or legalization of their ownership rights over lands in the village forest, and their interest was rated very high (score 4.5)

	The impact of The Project on the non-resident landowners of lands inside village forests is potentially substantially negative (■) because The Project is supporting LPHDs in implementing the forest management plan mandated by the village forest licenses, so statutorily, the land management activities by non-resident landowners are illegal, that means the non-resident landowners are losing their rights over the lands. Meanwhile, the land management activities will cause forest degradation, and this will be stopped by The Project, so the non-resident landowners cannot work on their lands anymore, they will lose livelihood or food sources from within the village forests.
30. Non-resident hunters (Pemburu dari luar desa)	Non-resident hunters are people from outside the villages, not only from the neighboring villages but also from far away villages, who come to the village forests for hunting. They usually enter the village forests not through the village settlements but trespassing from various access forest paths. They use built-up riffle for hunting and hunt any species. The village governments have distributed information on the protection of protected wildlife species, however, because those hunters are trespassing using other entry points, not through the main settlements, hunting activities by these people are mostly undetected. Non-resident hunters were identified/acknowledged in all five villages (Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya villages) during Environmental and Social Impact Assessment FGDs, to clarify between rights holders affected people and non-rights holders affected people and added in the Stakeholder Engagement Plan, however, this type of stakeholders was not differentiated from the residents during the Stakeholder Identification and Analysis. Therefore, an additional analysis for this stakeholder type was done by PRCF Indonesia team. The influence of non-resident hunters on The Project was considered negative by PRCF Indonesia, because hunting activities will compromise the biodiversity sustainability within the village forests as well as the surrounding forests within the village. For this influence, PRCF Indonesia gave a quite low score of 1.7. The potential interest of non-resident hunters on The Project would be related with the opportunities to continue hunting or if hunting activities are stopped, then to obtain alternative livelihoods sources and meat sources from The Project. PRCF Indonesia also thought that this interest is low, however, because the non-resident hunters are mostly not from nearby villages, therefore the interest of non-resident hunters in The Project was rated 1.3. The impact of The Project on the non-resident hunters is substantially negative (■) because The Project is supporting LPHDs in protecting the village forest and biodiversity mandated by the village forest licenses, so statutorily, the hunting activities by non-resident hunters are illegal. Meanwhile, the hunting activities will cause

	biodiversity loss, and this will be stopped by The Project, so the non-resident hunters will lose their meat sources or income sources from the village forests.
31. Non-resident loggers (Pekerja Kayu dari luar desa Tj, NB, NJ)	Non-resident loggers are people from outside the villages or those who were residents of the villages but then moved out of the villages who were engaged in timber harvesting inside the village forests. Except Sri Wangi, all four villages recognized there had been non-resident loggers who did their logging activities inside the village forests. Logging was done for their own consumption for building houses, but also for sale in the villages or outside the villages. However, since the village forest licenses were granted to the five village communities, this information was shared and some law enforcements were conducted, gradually, non-resident loggers stopped their activities within the village forests, but some are still logging in the villages' forested areas. It was identified in Tanjung village that a household that had moved out of the village recently came back in 2022 to log the trees inside the village forest, for land clearing of their lands (customarily owned lands) for rice cultivation. This type of stakeholder was not differentiated from that of resident loggers during the Stakeholder Identification and Analysis. Non-resident loggers were differentiated from the resident loggers during Environmental and Social Impact Assessment FGDs to clarify between rights holders affected people and non-rights holders affected people and added in the Stakeholder Engagement Plan. Therefore, PRCF Indonesia team analyzed the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. According to PRCF Indonesia, the potential influence of non-resident loggers on The Project was negative, because they cut the trees and cause unsustainability of the village forest. This influence was rated low, with a score of 1.9. Meanwhile, the potential interest of non-resident loggers in The Project was the opportunities to obtain alternative livelihoods sources if logging activities are stopped. PRCF Indonesia provided a very low score of 1.2 for their interest. The potential impact of The Project on the non-resident loggers is substantially negative (■) because The Project is supporting LPHDs in protecting the village forest mandated by the village forest licenses, so statutorily, the logging activities by non-resident loggers are illegal. Meanwhile, the logging activities will cause biodiversity loss, and this will be stopped by The Project, so the non-resident loggers will lose their income sources from the village forests.

32. Non-resident gold miners (Penambang emas dari luar desa)	Non-resident gold miners are people from outside the villages who engage in gold mining within the village forests, either as financiers or workers. Gold mining activities within the village forest were existed in Tanjung, Nanga Betung and Nanga Jemah villages, however, since the forests were designated as village forests, where no mining activities are allowed, the village governments and LPHDs have been distributing information and conducting socialization that mining within the village forests is prohibited. Law enforcement was also conducted several times in the villages, and finally, starting 2018 no more gold mining is allowed in Nanga Jemah Village Forest, while gold mining has been completely banned in Tanjung and Nanga Betung from 2021. Non-resident gold miners were not identified during the Stakeholder Identification and Analysis. Non-resident gold miners were identified and differentiated from the resident gold miners during Environmental and Social Impact Assessment FGDs, to clarify between rights holders affected people and non-rights holders affected people and included in the Stakeholder Engagement Plan. Therefore, PRCF Indonesia team analyzed the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. According to PRCF Indonesia, the potential influence of non-resident gold miners on The Project was the landscapes and environmental disturbance due to gold mining activities, such as pollution of the rivers so that fish were gone from the rivers and river waters could not be utilized anymore. This influence is a negative influence and PRCF Indonesia provided a score of 1.4 since the gold mining activities have gradually been stopped from the village forests. Meanwhile, the potential interest of non-resident gold miners in The Project was also given a very low score of 1.1, because non-resident gold miners might think of obtaining alternative source of business from The Project. Though gold mining activities have been stopped in the village forests and patrol will be conducted to make sure that gold mining activities are not encroaching the village forest, PRCF Indonesia still thought The Project will have substantial negative impact (■) to the non-resident gold miners, because there is no livelihood potential anymore from the village forests for non-resident gold miners due to Project activities.
33. Non-resident honey harvesters (Petani Madu dari luar desa)	Non-resident honey harvesters are people from outside the villages who engage in forest honey harvesting from <i>lalau</i> trees within the village forests. <i>Lalau</i> trees are very big standing trees where bees build their hives on the branches of the trees. A <i>lalau</i> tree can host about 20 to 30 hives, depending on the size and height of the tree. The honey harvested from a <i>lalau</i> tree is called <i>lalau</i> honey (<i>madu lalau</i>). Traditionally, harvesting <i>lalau</i> honey has similar rules as planting rice on a farm (<i>ladang</i>), that is the first person who discovered a <i>lalau</i> tree with beehives would become the 'owner' of the <i>lalau</i> tree. The <i>lalau</i> tree would then be marked and maintained so that anybody passing by the tree would know that the tree is owned by someone. Therefore,

	harvesting honey from a <i>lalau</i> tree must be at the knowledge of the owner, otherwise they will be sanctioned by <i>adat</i> law/customary law upheld by the community where the <i>lalau</i> tree owner belongs for stealing honey. This means, when a non-resident honey harvester is practicing the harvest, the person must have been hired by the <i>lalau</i> tree owner, or illegally harvesting the <i>lalau</i> honey. Currently, only village regulation of Nanga Jemah Village prohibits extractions/harvesting of NTFPs (including honey) from the village forest by outsiders. Non-resident honey harvesters were not identified during the Stakeholder Identification and Analysis. However, this type of stakeholder was later identified during Environmental and Social Impact Assessment FGDs, to differentiate between rights holders affected people and non-rights holders affected people, and included in the Stakeholder Engagement Plan. Therefore, an additional analysis for this stakeholder type was done by PRCF Indonesia team. According to PRCF Indonesia, the influence of non-resident honey harvesters on The Project was scored very low (1.2), because their activities could contribute to the <i>lalau</i> trees sustainability, they would not cut the trees. The interest of non-resident honey harvesters in The Project was considered very low too (score 1.5), because they might expect an arrangement by The Project so that they can improve their livelihoods, or if they cannot do the activities anymore (because they are not the rights holders), they would expect alternative livelihood sources were prepared by The Project for them. The potential impact of The Project on the non-resident honey harvesters is considered not positive and not negative (■) because The Project activities will not restrict <i>lalau</i> honey harvesting by non-resident honey harvesters, unless they did the harvest illegally.
Rightsholders of the project area	
Village Forest Rightsholders	
34. Landowners inside village forest (Pemilik Lahan di dalam HD)	Landowners inside village forest (<i>Pemilik Lahan di dalam HD</i>) are community members residents of the respective village who have been using the lands within the village forest for generations. They are traditionally the owners of the lands, but statutory illegal occupants of the forest areas. The land uses are usually shifting cultivation, agroforestry farms, or rubber farms. As traditional owners of the lands, the lands are inherited from their parents and will be passed down to their children and grandchildren, and the next generations. However, those lands have been legally granted management rights to the whole village community as village forests. Therefore, legally, these owners cannot work on their lands anymore, but traditionally they are still the owners of the lands.

	The influence of landowners inside village forest could be both positive and negative. It is positive when these landowners inside village forest involve in and support The Project implementation, while it is negative when they still carry out their usual farming activities, such as shifting cultivation by re-opening the young forest growth after fallow for several years and plant rice, and most of the time they use fire to clear the lands. FGD participants in five villages assessed this influence on The Project from very low to very high with a score of 1.5 to 4.8. The interest of landowners inside the village forest in The Project is potentially related to their involvement in The Project to reduce (or even replace) their loss from not being able to work on the lands within the village forest. FGD participants provided medium to very high scores (3.2 to 4.8). The impact of The Project to the landowners inside village forest was considered negative (■) because obviously The Project will stop activities that can cause deforestation and forest degradation within the village forest, including shifting cultivation. Nevertheless, during The Project development, The Project has been working with this community group to find alternative income generating activities than can be supported by The Project.
35. NTFP collectors (Kelompok Pengumpul HHBK)	NTFP collectors (<i>Kelompok Pengumpul HHBK</i>) are community members residence of the respective village who have been using the village forest since long before it was stipulated as village forest for collecting NTFPs for their livelihoods. Several types of NTFPs collected by residents of Nanga Jemah, Tanjung and Penepian Raya villages include buce moss, resin, honey, rattan, fruit and tengkawang. NTFP collectors' influence on The Project has been discussed in three villages, i.e., Nanga Jemah, Tanjung and Penepian Raya villages. FGD participants thought there are risks related to the sustainability of NTFPs, when the collectors harvested unsustainably. Therefore, the influence is negative, with score from very low (1.3 to 1.4). The interest of NTFP collectors in The Project is potentially related to their involvement in The Project to reduce (or even replace) their loss from not being able to collect NTFPs as intensive and as they want as before The Project, that is as beneficiaries of The Project, as well as to develop alternative livelihoods activities. FGD participants provided very low to high scores (1.6 to 4.1). The impact of The Project to the NTFP collectors was considered negative (■) because obviously The Project will stop activities that can cause deforestation and forest degradation within the village forest, including unsustainable NTFP collections. Nevertheless, during The Project development, The Project has been working

	with this community group to find alternative income generating activities than can be supported by The Project.
36. Hunters (Pemburu)	Hunters (<i>Pemburu</i>) are community members residence of the respective village who have been using the village forest since long before it was stipulated as village forest for hunting for their livelihoods. Hunting activities are generally carried out to fulfill food protein needs, but it is also possible that hunting animals from the forest is for sale. The influence of hunters on The Project was only assessed by FGD participants from Nanga Jemah village. They thought hunting had risks on the existence of wildlife diversity, therefore the influence is negative. They provided a score of 4.7 for the negative influence of hunters on The Project. The possible interest of hunters in The Project includes their involvement in The Project to reduce (or even replace) their loss from not being able to hunt wildlife as intensive and as they want as before The Project, that is as beneficiaries of The Project, as well as to develop alternative livelihoods activities. However, they also realized that hunting, especially protected wildlife, is a crime, so their interest in The Project was rated very low (1.2). The impact of The Project to the hunters was considered negative (■) because obviously The Project will stop activities that can cause deforestation and forest degradation within the village forest, including the loss of biodiversity through hunting. Nevertheless, during The Project development, The Project has been working with this community group to find alternative income generating activities than can be supported by The Project.
37. Loggers (Pekerja Kayu)	Loggers (<i>Pekerja Kayu</i>) are community members residence of the respective village who have been using the village forest since long before it was stipulated as village forest for logging trees for construction timber. Included in the loggers' group is people who fell/cut down the trees, people who carries the log to outside the forest, and also people who does the timber business (collector in the village). Loggers has traditional utilization rights over the forest, but since village forest was established and management rights was granted to the whole community in the respective village, logging is prohibited, unless the legal forest function is production forest. Loggers as stakeholder of The Project were discussed in the FGD in Nanga Jemah and Penepian Raya villages, where the forest function status of both village forests are protection forest (<i>Hutan Lindung</i>). This means, logging is illegal in the protection forest. The influence of loggers in The Project was considered negative because logging activities will remove trees and risk the sustainability of tree diversity. Therefore, FGD participants from Penepian Raya and Nanga

	Jemah villages rated the influence of loggers in The Project with low to medium score of 2 and 3.1 respectively. The possible interest of loggers in The Project includes their involvement in The Project to reduce (or even replace) their loss from not being able to get income from logging activities, that is as beneficiaries of The Project, as well as to develop alternative livelihoods activities. However, they also realized that logging is a crime, so their interest in The Project was rated with a low score of 2.1. The impact of The Project to the loggers was considered negative (■) because obviously The Project will stop activities that can cause deforestation and forest degradation within the village forest, including the loss of tree biodiversity through logging that will cause reduced numbers of trees inside the village forest. Nevertheless, during The Project development, The Project has been working with this community group to find alternative income generating activities than can be supported by The Project.
38. Gold miners (Penambang Emas)	Gold miners are the residents of the villages who engage in gold mining within the village forests, either as financiers or workers. Gold mining activities within the village forest were existed in Tanjung, Nanga Betung and Nanga Jemah villages, however, since the forests were designated as village forests, where no mining activities are allowed, the village governments and LPHDs have been distributing information and conducting socialization that mining within the village forests is prohibited. Law enforcement was also conducted several times in the villages, and finally, starting 2018 no more gold mining is allowed in Nanga Jemah Village Forest, while gold mining has been completely banned in Tanjung and Nanga Betung from 2021. Gold miners were not identified during the Stakeholder Identification and Analysis. Gold miners were identified and differentiated from the non-resident gold miners during Environmental and Social Impact Assessment FGDs, to clarify between rights holders affected people and non-rights holders affected people and included in the Stakeholder Engagement Plan. Therefore, PRCF Indonesia team analyzed the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. According to PRCF Indonesia, the potential influence of gold miners on The Project was the landscapes and environmental disturbance due to gold mining activities, such as pollution of the rivers so that fish were gone from the rivers and river waters could not be utilized anymore. This influence is a negative influence and PRCF Indonesia provided a score of 1.6 since the gold mining activities have gradually been stopped from the village forests. Meanwhile, the potential interest of gold miners in The Project was given a low score of 2.3, because gold miners might think of obtaining alternative source of business from The Project.

	Though gold mining activities have been stopped in the village forests and patrols are conducted to make sure that gold mining activities are not encroaching the village forest, PRCF Indonesia still thought The Project will have substantial negative impact (■) to the gold miners, because there is no livelihood potential anymore from the village forests for gold miners due to Project activities.
39. Fishers (Nelayan PR)	Fishers (<i>Nelayan</i>) are community members residence of the respective village who have been using the village forest since long before it was stipulated as village forest for fishing for their livelihoods. Fishing in the village forest is usually done in the rivers or small streams, as well as in the lake inside the village forest, such as in Penepian Raya Village Forest. Fishing is the main livelihood of Penepian Raya village community. Therefore, fishers as stakeholders of The Project are only discussed in FGD in Penepian Raya village. The FGD participants in Penepian Raya village realized that unsustainable fishing will have negative Influence not only to The Project but also to their livelihoods, because unsustainable fishing will cause the unsustainability of fish and fish diversity. This influence was rated high with a score of 4. The possible interest of fishers in The Project includes their involvement in The Project to reduce (or even replace) their loss from not being able to do fishing as intensive and as they want and using any tools as before The Project, that is as beneficiaries of The Project, as well as to develop alternative income generating activities. Though fishing is not prohibited, they also realized that unsustainable fishing, especially to protected fish species, is a crime. Their interest in The Project was rated high (score of 4), because they're hopeful for The Project to be able to improve their livelihoods. The impact of The Project to the fishers was considered negative (■) because obviously The Project will stop unsustainable fishing activities that can cause fish diversity degradation within the village forest and The Project will initiate activities to protect the forest and lakes inside the Penepian Raya Village Forest. Nevertheless, during The Project development, The Project has been working with this community group to find alternative income generating activities than can be supported by The Project.
40. Honeybees' cultivators (Petani Lebah Madu Penepian Raya)	Honeybees' cultivators (<i>Petani Lebah Madu Penepian Raya</i>) are community members residence of the Penepian Raya village who have been cultivating honeybees by placing <i>tikung</i> (artificial branch) on the trees in the peat swam lakes including within the village forest. This activity has become the second main livelihood of Penepian Raya village community for the past two-three decades. They are traditionally the owners of the trees where they placed their <i>tikungs</i>. But statutory illegal owners of the forest trees because the trees are naturally grown, and they didn't plant the trees inside the forest. Honeybees' cultivation is not restricted, it is in fact one of supported activities included as non-timber forest products that can be done in the village forest.

	The influence of honeybees' cultivators on The Project was considered positive with medium score of 3.5, because for their own benefits, these cultivators will make sure that the trees inside the village forest that they used for placing <i>tikungs</i> are sustainable. The potential interest of honeybees' cultivators in The Project is related to the support of The Project so they can produce honey from sustainable practices. This interest was rated very high with a score of 4.5 by FGD participants in Penepian Raya village. The impact of The Project on the honeybees' cultivators was considered positive (■) because through project activities, such as patrol and various livelihoods training, the trees sustainability will be ensured, and the honeybees' cultivators will get benefits from various training they will get to produce honey through sustainable practices.
41. Kratom farmers (Petani Kratom)	Kratom (<i>Mitragyna speciosa</i>) (commonly known as purik in Kapuas Hulu⁷⁷, an herbal leaf from a tree of the Rubiaceae family is a tropical evergreen tree in the coffee family native to Southeast Asia. It is indigenous to Thailand, Indonesia, Malaysia, Myanmar, and Papua New Guinea, where it has been used in herbal medicine since at least the 19th century. It has also historically been used for chewing, smoking, and tea. Kratom has opioid properties and some stimulant-like effects. As of 2013, kratom was listed by ASEAN in its annex of products that cannot be included in traditional medicines and health supplements that are traded across ASEAN nations. Kratom is scheduled to become an illegal substance in Indonesia in 2024 once new regulations from the Indonesian National Narcotics Agency (BNN) go into effect. This pending ban has been in place since 2019; the date of the ban going into effect was pushed out to 2024 to give Kratom farmers time to switch to other crops. Notably, this ban would likely devastate the Kratom supply in the United States, since almost all of America's Kratom is supplied via Indonesian exports. Kratom farmers (<i>Petani Kratom</i>) are included as stakeholders of The Project because most of Kapuas Hulu traditional farmers are also planting kratom and benefitted from the sale of kratom dried herbs/<i>simplisia</i>⁷⁸. Kratom cultivation has become the savior from the fall of rubber price from the past one decade. Of all five villages in The Project, some community members from Penepian Raya village have been planting kratom inside the village forest, where their traditional rubber farms are located. Therefore, only FGD participants in Penepian Raya village discussed and analyzed kratom farmers.

⁷⁷ https://en.wikipedia.org/wiki/Mitragyna_speciosa

⁷⁸ *Simplisia* is a natural substance that is used for medicine and has not undergone any process change, and unless stated otherwise, it is generally in the form of material that is not dried.

	Although there the FGD participants have heard the discourse over kratom will be included as illegal plant for the public to plant, process, and consumed because it will be included as one of narcotic substances, they thought planting kratom will have good Influence on the forest, that planting kratom trees will enrich the forest plant species. This influence on The Project was rated with a score of 3.1. The potential interest of kratom farmers on The Project was related with The Project's support on their farming activities and find alternative trees for planting or even alternative income source when planting kratom is finally restricted in the future. The interest of kratom farmers in The Project was rated with a high score of 4.1. The FGD participants' perspective on the impact of The Project on kratom farmers are positive (■) because they still thought that The Project can support them in planting bare lands with kratom. However, when the regulation on the ban of kratom is enacted, The Project will have negative (■) impact to kratom farmers, because The Project must comply with regulations of Indonesia, and like other prohibited plants (e.g., marijuana or <i>Cannabis sativa</i>), kratom trees will have to be destroyed from wherever they are planted. Before this happened, The Project has been working with the communities to find alternative income generating activities that can be supported by The Project.
42. Tourism Management Group (KPP PR)	Tourism Management Group (KPP PR) is a community group in Penepian Raya village that is involved in the tourism development in the village. This group has been established and technically supported by the Disporapar KH to develop nature tourism in Bukit Tang and surrounding, which is part of the Penepian Raya Village Forest. KPP PR were not identified during the Stakeholder Identification and Analysis. KPP PR were identified during development of Stakeholder Engagement Plan. Therefore, PRCF Indonesia team analyzed the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. According to PRCF Indonesia, KPP PR's influence on The Project was potentially positive influence, because this group will support the protection and conservation of the village forest for the sustainability of their nature tourism activities. This influence was rated low with a score of 2. Meanwhile, the interest of KPP PR in The Project was considered medium with a score of 3.5, because this group is potentially expecting that The Project activities will protect the village forest and support the group's activities. The impact of The Project on the KPP PR was considered positive (■) because The Project activities that will involve KPP PR will contribute to the achievement of KPP PR in developing nature tourism in the village.

43. Village Forest Management Institution (LPHD) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Village Forest Management Institution (Lembaga Pengelola Hutan Desa, LPHD) is an institution formed and authorized by the village head to manage the social forestry area in the village, that is the village forest, for the well-being of the village community. LPHD is directly involved in The Project as project implementer in cooperation with the project operator (PRCF Indonesia). The influence of LPHD on The Project was discussed by FGD participants in five villages. They provided score from 4.4 to 4.9 for this influence, because they thought LPHD is the spearhead of The Project implementation. So, the success as well as the failure of the project relies on the LPHD, and this means LPHD's influence can be positive and can also be negative. The potential interest of LPHDs on The Project is related to the support of The Project on LPHD's activity and business plans. Therefore, FGD participants in five villages rated the interest of LPHD in The Project as very high (score 4.9 to 5). The project was expected to have a positive (■) impact on LPHD. According to FGD participants in five villages, The Project will support LPHDs with capacity building, technical supports, facilities, infrastructures, and equipment, as well as budget for implementing LPHD's obligation to manage the village forests which are integrated into The Project activities.
44. Customary Institution (Lembaga Adat) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Customary Institutions (<i>Lembaga Adat</i>) are social organizations, both those that were deliberately formed based on laws and regulations as village government partners, as well as those that naturally and hereditarily have grown and formed in the history of community life or in a certain customary law community, with jurisdiction and rights over assets in customary law, and have the right and authority to regulate, manage and resolve various life problems related to and referring to applicable customs and customary law. In addition, customary institutions also function to foster customs and customary regulations within the village area. Of five initial villages in The Project, only FGD participants in Tanjung Village that include customary institution as stakeholder of The Project. This shows the role of customary institutions in their day-to-day life is still strong. The FGD participants assessed that customary institution has an influencing role in The Project, especially the role of solving problems within the community and especially that related to custom. Therefore, the influence of customary institutions on The Project was considered low with a score of 1.8. The potential interest of customary institution in The Project was considered related with maintaining the customary harmony in the social life of village community when The Project is being implemented. This interest was rated with a low score of 2.3.

	The project was expected to have a positive (■) impact on customary institution, because through The Project, it is assumed that the targets of customary institution will also be supported.
45. Community Empowerment Institution (LPM) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Community Empowerment Institution (<i>Lembaga Pemberdayaan Masyarakat</i>, LPM) is a village social institution that acts as the partner of village government and is tasked with empowerment of village community, involve in the planning and implementation of village development and improving services for village community. The prevailing regulation required that programs and activities that initiated by the Government, Provincial Government, District/City Government and non-governmental organizations must empower and utilize village social institution that is existed in the village. LPM was discussed in the FGDs in three villages, namely Tanjung, Nanga Betung and Sri Wangi villages. FGD participants thought that the influence of LPM on The Project will be in the form of LPM's role in preparing the human resources quality in the villages to be involved in The Project. This influence was rated with score from 1 to 2.5 by FGD participants in three villages. The potential interest of LPM in The Project is related to the chance for village human resources quality improvement that expected to be supported by The Project. For this interest, FGD participants in three villages also provided scores of 1 to 2.5. The project was expected to have a positive (■) impact on LPM, because The Project can support the achievement of LPM work target to empower and improve human resources quality in the villages.
46. Family Well-being Empowerment/ Women's Group (PKK) of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Family Well-being Empowerment/ Women's Group (<i>Pemberdayaan dan Kesejahteraan Keluarga</i>, PKK) is a national movement for empowering families and women to be able to take part in the village development. The PKK movement is carried out through 10 (ten) principal programs of empowerment and family welfare includes: appreciation and practice of Pancasila; mutual cooperation; food; clothing; housing and household administration; education and skills; health; cooperative life development; environmental sustainability; and healthy planning. PKK was discussed in the FGDs in Tannung, Sri Wangi and Nanga Jemah villages. According to FGD participants, the influence of PKK on The Project is low (score 1 to 2.3) because the PKK is tasked with 10 principal programs of empowerment and family welfare which are not directly related to The Project that focusing on the village forest management. The potential interest of PKK in The Project is related to the opportunities of PKK being supported by The Project though social activities. This interest was also rated low with a score of 1 to 2.6.

	Nevertheless, The Project was expected to have a positive (■) impact on PKK, because through the project activities it is expected that there are various activities that can involve women that finally will contribute to the women empowerment in the village and improvement of well-being of the communities. This is regarded as contribution to the achievement of the 10 principal programs of PKK too,
47. Youth Group (Karang Taruna)	Youth Group/ Karang Taruna is an organization formed by the communities as a forum for the younger generation to develop themselves, grow and develop on the basis of awareness and social responsibility from, by and for the younger generation, which is oriented towards achieving social welfare for the communities. Karang Taruna was assessed as stakeholder of The Project by FGD participants in Tanjung, Nanga Betung, and Sri Wangi Villages. According to the FGD participants, the influence of Karang Taruna on The Project was considered low to medium with score of 1 to 3.3, because the youth in the villages will mostly participate in The Project activities rather than influencing The Project. Karang Taruna's potential interest in The Project is that they will be involved in the several activities, especially those related to forest activities in the field. The FGD participants rated this interest with a very low to medium score (1 to 3.5). The Project was expected to have a positive (■) impact on Karang Taruna, because The Project is expected to involve Karang Taruna and therefore they can also achieve their work program in improving the social welfare of the communities.
48. Education Institutions (PAUD, SD, SMP)	Education institutions which were included as stakeholders of The Project were Pre-School (PAUD), Elementary School (SD), and Junior High School (SMP) that existed in Nanga Betung, Sri Wani, and Nanga Jemah Villages. The other two villages did not include education institutions as their project stakeholders. These lower-level education institutions are considered as the place for preparing human resources of the villages so they can be useful in their future and contribute to the village development, including in village forest management. The potential influence of Education Institutions on The Project was rated with very low score (1.2 to 1.5) by FGD participants in three villages, as they're not directly related to The Project though they are preparing the next generations who will take over in managing the village forest. The potential interest of Education Institutions in The Project is particularly related to expected support from The Project to the bright students whose parents have no or lack abilities in sending their children to school. For this interest, the FGD participants rated low to medium, with a score of 1.5 to 3.5.

	The Project was expected to have a positive (■) impact on Education Institutions, because through The Project, it is expected to improve the income and well-being of village communities so they can send their children to school, which in turn will support the achievement of the Education Institutions' functions.
49. Church Administrators (Pengurus Gereja)	Church Administrators are leaders of the Catholic and Christian (Protestant) people in Tanjung Village and have roles in guiding the people to preserve and do good in relationship between humans and human and nature. Church Administrators were not identified during the Stakeholder Identification and Analysis in Tanjung Village, but then were identified during development of Stakeholder Engagement Plan. Therefore, PRCF Indonesia team analyzed the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. According to PRCF Indonesia, Church Administrators potentially have influence in encouraging the people to support The Project objectives in conserving the nature and in community development, however, this influence was rated very low score (1.2), because this stakeholder has no direct involvement in The Project. The interest of Church Administrators in The Project was potentially on the support of The Project for preserving the relationship between human and nature. This interest was rated very low score (1). The Project was expected to have a positive (■) impact on Church Administrators because The Project can contribute to spreading God's Command/Gospel to do good with the nature.
50. Islamic Learning Group (Majelis Taklim)	Islamic Learning Groups (<i>Majelis Taklim</i>) are groups established by women in Nanga Betung, Sri Wangi, and Nanga Jemah villages to learn about Islam and Al Quran. Members of the groups are women and girls. Their activities are related to Islamic and Al Quran learning as well as taking parts in Islamic festives. According to FGD participants from three villages, the influence of <i>Majelis Taklim</i> is in influencing involvement of women in The Project. This influence was scored from 2.7 to 4. The interest of the <i>Majelis Taklim</i> is potentially related to the improvement of the members' livelihoods through The Project that in turn will contribute to the fund raising of the groups. <i>Majelis Taklim's</i> interest in The Project was considered low to medium, with a score of 2.5 to 3. The Project was expected to have an indirect positive (■) impact on <i>Majelis Taklim</i> that through The Project the religious capacity of the women in the villages are increasing.

51. Integrated Service Posts (Posyandu, Posbindu)	Integrated Service Posts (Posyandu, Posbindu) are service posts in the villages that are established from, by, and for the communities themselves for providing community services, such as health services for women, children, the older people, including monitoring and risk assessment of disease, health, mental, abuse, accidents, etc. Women in the communities are usually the cadres of both Posyandu and Posbindu. The influence of Integrated Service Posts on The Project was assessed by FGD participants in two villages (Nanga Betung and Sri Wangi Villages) with very low scores, (1.1 and 1.5, respectively). The potential interest of Integrated Service Posts in The Project is related to the expectation that The Project can provide capacity building to the members of Integrated Service Posts related to the village forest and how they can contribute to The Project. This interest was rated with a low score of 2 to 2.5 by FGD participants in Nanga Betung and Sri Wangi village, respectively. The impact of The Project to Integrated Service Posts was expected to be positive (■), because The Project have activities that will be beneficial for all community members in the project villages, such as knowledge sharing and capacity building that will improve the knowledge of the communities, as well as livelihoods related activities that expected to improve the well-being of the communities.
52. Medical Staffs (Tenaga Medis PR)	Medical staff are people with health-related technical skills who conduct health services in the sub-district's Puskesmas or in the village's Health Posts. Their roles are not only treating sick people, but also providing first aid for accidents, including during work, and conducting and promoting health lifestyle campaigns. Medical staff were not identified during the Stakeholder Identification and Analysis in the villages, but then were identified during development of Stakeholder Engagement Plan. Therefore, PRCF Indonesia team did additional analysis for the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. PRCF Indonesia considered the influence of medical staff on The Project was very low (score of 1.3), because although they can provide health services to The Project workers, e.g., for health issues or accidents during work. The potential interest of medical staff in The Project is related to the opportunities to provide health services to The Project, and this interest was also rated very low (score 1) by PRCF Indonesia, because health services are not actually expected during work, in term of treating sick or people with accidents. The Project will be as much as possible implementing the work safety and security procedures, so there will be no health issues or accidents.

	The impact of The Project to Integrated medical staff was expected to be positive (■), because The Project will be implementing the work safety and security procedures, so that medical staff will be able to write a good report of no health issues of accidents in the villages they are working in.
53. Village communities of five villages: Tanjung, Nanga Betung, Sri Wangi, Nanga Jemah, and Penepian Raya	Village communities of five villages are residents of five villages who are the village forest management licenses' rights holders, their livelihoods activities are usually not directly related to the village forests, but they can participate in The Project, and indirectly will get benefit from the village forests and The Project. FGD participants in five villages did not include village community in Stakeholder Identification and Analysis but then village community were identified as a stakeholder during development of Stakeholder Engagement Plan. Therefore, PRCF Indonesia team did additional analysis for the influence and interest of this stakeholder in The Project and the impact of The Project on this stakeholder. PRCF Indonesia considered even though village communities are not directly involved in the village forest management, they can influence The Project weakly, with a score of 1.7, because they can support The Project implementation. Meanwhile, the interest of village communities in The Project was rated medium (score 3.5), because they might expect benefits from The Project. The impact of The Project to Integrated village communities was expected to be positive (■), because The Project will have benefits for the villages including the communities in the villages.
Civil society organizations	
54. Indonesian Biodiversity Foundation (KEHATI)	The Kehati Foundation (KEHATI) is a foundation established to collect and manage resources which are then channeled in the form of grants, facilitation, consulting and various other facilities to support various programs to preserve Indonesia's biodiversity and use it in a fair and sustainable manner. KEHATI as the administrator of the TFCA Kalimantan Program and has distributed grants to grant recipients who have met the technical and administrative requirements, including to PRCF Indonesia. PRCF Indonesia used the funds to support the development of The Project. Influence of KEHATI on The Project was then assessed from low to high (score 1 to 4.2) by FGD participants in four villages (Tanjung Village did not assess Yayasan Kehati), because of its support through TFCA Kalimantan that enable project communities to develop The Project together with PRCF Indonesia. The potential interest of KEHATI in The Project was also assessed low to high (score 1 to 4) by FGD participants in four villages, because The Project will continue the TFCA Kalimantan's support to the project communities.

	The FGD participants thought that The Project has a positive impact (■) to KEHATI, because The Project can support the sustainability of the program managed by KEHATI.
55. TFCA Kalimantan	Tropical Forest Challenges Account for Kalimantan Region (TFCA Kalimantan) is a cooperation program between the governments of Indonesia and the United States for a debt for nature swap scheme. TFCA Kalimantan Program is managed by Yayasan Kehati. The Project Operator (PRCF Indonesia) had secured TFCA Kalimantan funds and used the funds to support the development of The Project. For this reason, the influence of TFCA Kalimantan on The Project was considered medium to very high (score 3 to 4.5) by the FGD participants in five villages. TFCA Kalimantan has been seen as having low to high interest in The Project (score 1 to 4.1) by FGD participants in five villages, because as one of the TFCA Kalimantan's interests is to see the independence capacity of the community to manage their forest, but yet, their funding is either ended or will end soon in their villages. Nevertheless, the FGD participants in five villages thought that The Project has a positive impact (■) to TFCA Kalimantan, because the project has supported the TFCA Kalimantan in achieving its targets.
56. FIP-1 (Tj, NB)	Forest Investment Program – 1 (FIP-1) with theme "Community Focused Investment to Address Deforestation and Forest Degradation Forest Investments Program" was an MoEF project funded by Asian Development Bank (ADB). Two of the project communities, Tanjung and Nanga Betung, were participating in FIP-1. FIP-1 was one of the pioneers in building community capacities in the management of alternative income sources through home gardens. The FIP-1 project has finished and the FGD participants from Tanjung and Nanga Betung Villages assessed its influence on the Rimba Collective Project as medium to high (3.8 and 3, respectively), because FIP-1 has set up the foundation for the communities' capacity for The Project. The interest of FIP-1 to The Project was considered medium-high by FGD Participants in Tanjung and Nanga Betung Villages (score 3.8 and 3, respectively), because though the FIP-1 project finished, the sustainability of the project will be sought through the implementation of The Project. Since the FIP-1 project has ended, FGD participants thought that there will be no positive nor negative impact (■) of The Project to the FIP-1 project.
57. Village Community Development and Empowerment	Village Community Development and Empowerment Program (<i>Program Pembangunan dan Pemberdayaan Masyarakat Desa</i>, P3MD) is a program launched by The Ministry of Villages, Development of Undeveloped Areas, and Transmigration. P3MD was launched to safeguard the use of Village Fund through technical

Program (Program Pembangunan dan Pemberdayaan Masyarakat Desa, P3MD)	assistance of planning, preparation, implementation, monitoring, supervision, evaluation and reporting by deploying village facilitators to villages. FGD participants in four villages (Tanjung Village did not assess this stakeholder) discussed the influence of P3MD to The Project and rated very low to medium (score 1 to 3), because P3MD provide some guidance and facilitation in the villages and not directly involve in The Project. P3MD is interested in projects or programs that can support village community development. When applied to The Project, this P3MD interest is assessed varied by FGD participants in four villages, range between score 1 to 4, because P3MD showed such different interest in The Project in different village, despite the fact that The Project is supporting the village community development. The Project is thought to have a positive impact (■) on P3MD, because The Project supports the process of village planning and drafting of village regulations, that will be beneficial for the P3MD facilitation in the villages.
58. WWF Indonesia (Tj)	WWF Indonesia has been working in Tanjung Village for facilitating and supporting the communities in promoting tourism, development/improvement of dry rubber products, management of Village Business Enterprise, village potential mapping, and development of village regulation and the Medium-Term Village Development Planning. These roles were assessed by FGD participants in Tanjung Village as a high influence of WWF Indonesia on The Project. Meanwhile, WWF Indonesia is potentially having interest in cooperating with The Project to optimize the resources and village potential, where WWF Indonesia focusing is facilitation in the village area, while The Project focusing its supports in the village forest area, but the subjects of the facilitation and supports are the same: Tanjung Village community. The Project was assessed to have a positive impact (■) to WWF Indonesia, because The Project supports the achievement of WWF Indonesia's project's aims.
59. GIZ SASCI+	GIZ SASCI+ (Deutsche Gesellschaft für Internationale Zusammenarbeit, Sustainability and Value-Added in Agricultural Supply Chains in Indonesia) is a program to develop sustainable agricultural supply chain that is free from deforestation and link to global market. GIZ SASCI+ is aiming at increasing the sustainable production of agricultural commodities and strengthening downstream processing and market linkages, to increase the farmers' incomes, safeguard natural resources, and establish sustainable supply chains by 2025. GIZ SASCI+ provides capacity building to smallholder in remote areas with the hope that no deforestation will occur in the rubber or oil palm plantation business, fostering farmers who are registered in the program to be

	able to implement minimal deforestation through GAP techniques and therefore will increase premium products. The Continental German Tire Manufacturing Company is expected to provide premium prices for the rubber products. PRCF Indonesia has been trusted as GIZ SASCI+ program consultant to implement the program focusing on natural rubber in 35 villages of 6 sub-districts of Kapuas Hulu District since mid-2021. Three of 35 villages implementing GIZ SASCI+ are The Project' Villages, i.e., Nanga Betung, Sri Wangi, and Nanga Jemah. FGD participants from three villages of Nanga Betung, Sri Wangi, and Nanga Jemah assessed GIZ SASCI+ program influence on The Project as low to medium with score 2.8, 2.1, and 1.5 respectively. The score was given because activities in GIZ SASCI+ Program are focusing on rubber, while The Project focused on forest management and community livelihoods with rubber is only one of the targeted activities. Meanwhile, the interest of GIZ SASCI+ program in The Project was also considered low to medium (score 3.1, 3.2, and 2.4 respectively) because collaboration is expected in improving rubber farm management. The Project is considered to be able to support the improvement of dry rubber products quality and quantity, and therefore The Project will have a positive impact (■) to GIZ SASCI+ program.
International Organizations	
None	None
Private Sector Organizations	
60. Credit Union in Kapuas Hulu: CU Keling Kumang, CU Tri Tapang Kasih, CU Tilung Jaya, CU Lantang Tipo	Credit Unions CU) in Kapuas Hulu are companies developed for saving and loans business. CU has evolved to become sources of funds for community economic improvement, organizations that prevent smallholders farms grabbed or bought by palm oil plantation, as well as educational institution. CU in Kapuas Hulu was analyzed by FGD participants in Tanjung, Nanga Betung, and Sri Wangi villages during Stakeholder Identification and Analysis. FGD participants considered that the influence of CU is very low to The Project, because either CUs do not have any influence on The Project, or the influence is related to the community's business funding through loans. The interest of CU in Kapuas Hulu in The Project was rated very low to low (score of 1 to 2) by FGD participants in Tanjung, Nanga Betung and Sri Wangi, because they expected The Project contributes to the improvement of community income and business development, so that they communities can continue saving in the CUs.

	The Project was considered to have a positive impact (■) on the CUs because The Project activities are targeted to improve communities' income and potentially keeping the balance of those saving In CU accounts, and therefore contributing to the health of CU financing.
61. Koperasi Produsen Anugerah Bumi Hijau (Koprabuh)	Koperasi Produsen Anugerah Bumi Hijau (Koprabuh) is a cooperative first established in Bogor with main activities in horticulture crops, and then spread throughout Indonesia with expanded products through planting for biomass and food sustainability. Koprabuh was also established in Kapuas Hulu, started as off-taker of kratom products from farmers Kapuas Hulu, Koprabuh Kapuas Hulu also off-taking starting off-taking herbal potential. Koprabuh was identified as one of The Project Stakeholders by FGD participants in Penepian Raya Village, but not in other villages. FGD participants from Penepian Raya Village considered the influence of Koprabuh on The Project would be positive but at a low score (2.3), because Koprabuh has just started the community in planting agroforestry tree species within the village forest. The interest of Koprabuh in The Project was for The Project's support in the village forest enrichment planting and community economic development. This interest was rated 1.8. The Project was considered to have a positive impact (■) on the Koprabuh, because The Project activities support the tree planting in the village forest will indirectly contribute to Koprabuh's work target for off-taking community products from the village forests.
62. PT Elyo Cahaya Borneo	PT Elyo Cahaya Borneo is a company with the business of collecting NTFP products (off-taker) especially rattan in Kapuas Hulu. This company was identified as stakeholder by FGD participants in Tanjung Village. According to FGD participants in Tanjung Village, the potential of PT Elyo Cahaya Borneo's influence on The Project is rated very low, with a score of 1, and the influence can be positive because the company is contributing to the community livelihood improvement by off-taking rattan but can also be negative when the rattan collection is done in the village forests unsustainably. The interest of PT Elyo Cahaya Borneo in The Project is potentially related with support from The Project to village communities who are collecting rattan and selling to the company, and therefore work target of the company can be achieved. Though it is not direct support from The Project to the company, this interest was rated medium, with a score of 2.3.

	The Project will have a negative impact (■) to PT Elyo Cahaya Borneo, because if PT Elyo Cahaya Borneo encourages village communities to collect rattan from the village forest unsustainably, then The Project activities will stop the company's business in The Project villages.
63. PT NAS	PT NAS is a company with the business of collecting NTFP products (off-taker) especially <i>damar</i> (resin) in Kapuas Hulu. This company was identified as one of the stakeholders in Tanjung Village, but not in other villages. The potential of PT NAS's influence on The Project is rated very low by FGD participants in Tanjung Village, with a score of 1, and the influence can be positive because the company is contributing to the community livelihood improvement but can also be negative when the resin collection is done in the village forests unsustainably. The interest of PT NAS in The Project is potentially related to support from The Project to village communities who are collecting resin and selling to the company. Though it is not direct support from The Project to the company, The Project can contribute to the work target of the company, so this interest was rated quite high, with a score of 3.9. The Project will have a negative impact (■) to PT NAS, because if PT NAS encourages village communities to collect resin from the village forest unsustainably, then The Project activities will stop the company's business in The Project villages.
64. CV Equator	CV Equator is a company with the business of collecting NTFP products (off-taker) especially <i>damar</i> (resin) in Kapuas Hulu. This company was identified during Stakeholder Engagement Plan development, so it was not analyzed during Stakeholder Identification and Analysis. According to PRCF Indonesia, the potential of CV Equator's influence on The Project is rated very low, with a score of 1, and the influence can be positive because the company is contributing to the community livelihood improvement but can also be negative when the resin collection is done in the village forests unsustainably. The interest of CV Equator in The Project is potentially related to support from The Project to village communities who are collecting resin and selling to the company. Though it is not direct support from The Project to the company, this interest was rated quite high by PRCF Indonesia, with a score of 3.9.

	The Project will have a negative impact (■) to CV Equator, because if CV Equator encourages village communities to collect resin from the village forest unsustainably, then The Project activities will stop the company's business in The Project villages.
Media	
65. Metro Lima	Metro Lima is a media channel member of the Metro TV Group. Metro Lima often reports various things from the villages for the news, such as road or bridge development, accidents, disasters, etc. FGD participants in Tanjung Village identified Metro Lima as one of the stakeholders of The Project. They thought Metro Lima can influence The Project when reporting The Project activities in the news. This influence was rated very low, with a score of 1. Meanwhile, the interest of Metro Lima in The Project was also rated very low with a score of 1, because Metro Lima might be expecting news from The Project to expand their news coverage and achieve their news target. The impact of The Project on Metro Lima was considered positive (■), because The Project can become sources of news to be reported.
Organisations involved in project implementation	
66. Rimba Collective	Rimba Collective is an initiative led by buyers and processors of palm oil to collectively support long-term, sustainable conservation, and restoration of forests. It aims to provide US\$1 billion to protect or restore 500,000 hectares of forest, supporting 32,000 individuals in forest communities in Southeast Asia over 30 years, starting in Indonesia. FGD participants in five villages understood and discussed that Rimba Collective is providing the funds to implement The Project. Therefore, the influence of Rimba Collective on The Project was assessed as Veri high (score 4.6 to 5). Meanwhile, the possible interest of Rimba Collective in The Project is that The Project activities will be smoothly implemented according to the implementation plan. For this, FGD participants from five villages rated the interest of Rimba Collective to The Project as veri high (score 4.6 to 4.8). The Project will have a positive impact (■) to Rimba Collective, because when The Project is successfully implemented, Rimba Collective that consists of several companies will be acknowledged as companies that exercise good corporate social and environmental responsibility.

67. Lestari Capital	Lestari Capital is a conservation finance company, based in Southeast Asia, that develops innovative, nature-based products that enable companies to deliver on their sustainability objectives. Lestari Capital is the company that connects project communities with Rimba Collective, and also has roles in reviewing the activity plan and budget plan. FGD participants in five villages understood that Lestari Capital's influence on The Project is Very high and provided score of 4.6 to 5. As initiator of The Project, Lestari Capital highly potential to have interest in the success implementation of The Project, and therefore rated with a very high score (score 4.7 to 9) by FGD participants in five villages. The Project will have a positive impact (■) to Lestari Capital, because The Project implements the initiative of Rimba Collective and therefore help achieve Lestari Capital's tasks.
68. The Landscapes and Livelihoods Group (TLLG)	The Landscapes and Livelihoods Group (TLLG) is a group of environmental and social experts with an interest in supporting the development of nature-based solutions to global environmental and humanitarian challenges. It has a core team of experts and international network of consultants who continues to expand that enable to support a growing number of projects and programmes at all stages of their development including design, implementation, evaluation, and applying lessons learned. TLLG has been technically assisted the project development and work together with PRCF Indonesia and project communities to develop the implementation plans and required documents based on the CCB Standards required by the financing institution (Rimba Collective). Therefore, TLLG's influence on The Project was considered high (score 4 to 4.3) by FGD participants in five villages. Meanwhile, TLLG as a technical assistant and facilitator for the project operator (PRCF Indonesia) obviously have interest in The Project, that is the success of The Project in validation, verification, and see the benefits of The Project for the communities and biodiversity. This TLLG interest in The Project was seen as medium to high interest (score 3 to 4.1) by FGD participants in five villages. The Project will have a positive impact (■) to TLLG, because when The Project is succeeded in implementing the activities, the communities obtained benefits, and The Project passes validation and verification, TLLG will be acknowledged by international communities as having high capacity as project development technical assistant.
69. PRCF Indonesia	PRCF Indonesia is a non-profit organization focusing on efforts to conserve forests and biodiversity and empower communities living in and around forests. The organization is based in Pontianak and has been

	facilitating LPHDs and a coordinator of the Rimba Collective program in the Village Forest Network of Kapuas Hulu District for 25 years. PRCF Indonesia's influence on The Project was considered Very high (score 4.8 to 5) by FGD participants in five villages, because without PRCF Indonesia's facilitation, the communities would not be able to design The Project. PRCF Indonesia as a project operator definitely has interest in the success implementation of The Project. Therefore, FGD participants in five villages rated the interest of PRCF Indonesia in The Project as very high too (score 4.8 to 5). The Project will have a positive impact (■) to PRCF Indonesia, because the success of The Project means achievement of PRCF Indonesia's responsibility as the project operator.
Research Institutions and Universities	
70. Universitas Tanjungpura	Tanjungpura University is a national university based in Pontianak, West Kalimantan Province. It has nine faculties, including Faculty of Forestry, and conducting education for undergraduate, master's, and doctorate programs. The students and lecturers from Faculty of Forestry have been doing various topics of forestry research as well field practices, including forest management and also forest management by communities (social forestry). Tanjungpura University is well-known in the rural villages across West Kalimantan not only for the research and field practice, but also for the compulsory community services (<i>Kuliah Kerja Nyata/KKN</i>) which has inspired parents in the villages to send their children to higher education. The influence of Tanjungpura University was discussed by FGD participants in all five villages. They rated the influence of Tanjungpura University on The Project with low to medium (score 1.2 to 3.2), because they thought universities could influence how the project is developed and through research. Meanwhile, the interest of Tanjungpura University in The Project is potentially related with the opportunities to cooperate in research, as data sources for the research and literatures. The Project will have a positive impact (■) to Tanjungpura University because The Project can inspire new research topics for students or the university researchers, as well as place for field practices and other scientific and social activities.
71. National Islamic University of Pontianak (Institut Agama Islam Negeri)	National Islamic University of Pontianak (<i>Institut Agama Islam Negeri Pontianak</i>, IAIN Pontianak) is a national university based in Pontianak focusing on education and research on Islamic studies. Like other local-based national universities, IAIN Pontianak is also well-known in rural villages because of their activities such as field

Pontianak, IAIN Pontianak)	practice and community services (KKN). IAIN Pontianak was listed as one of stakeholders of The Project in Sri Wangi Village. FGD participants in Sri Wangi Village thought there is potentially no influence of IAIN Pontianak on The Project, because the university's focus is not related to forests or forest management, thus the score was given the lowest score of 1. However, the FGD participants thought the interest of IAIN Pontianak in The Project was potentially medium (score 3.2), because the university's interest is potentially related with the opportunities to cooperate in research, as data sources for the research and literatures. The Project will have a positive impact (■) to IAIN Pontianak, even though indirectly, because The Project can inspire new research topics for students or the university researchers, as well as place for field practices and other scientific and social activities.
72. Universitas Kapuas Sintang	Universitas Kapuas Sintang is a private university based in Sintang, neighboring district of Kapuas Hulu District. Like other local-based national and private universities, Universitas Kapuas Sintang is also well-known in rural villages because of their activities such as field practice and community services (KKN). Universitas Kapuas Sintang was listed as one of stakeholders of The Project in Nanga Betung Village. FGD participants in Nanga Betung Village thought there is potentially no or very minimal influence of Universitas Kapuas Sintang on The Project, because the university's focus is not related to forests or forest management, thus the score was given the lowest score of 1.1. However, the FGD participants thought the interest of Universitas Kapuas Sintang in The Project was potentially medium (score 3.3), because the university's interest is potentially related with the opportunities to cooperate in research, as data sources for the research and literatures. The Project will have a positive impact (■) to Universitas Kapuas Sintang, even though indirectly, because The Project can inspire new research topics for students or the university researchers, as well as place for field practices and other scientific and social activities.
73. STIT Iqra Kapuas Hulu	STIT Iqra Kapuas Hulu is a private university based in Putussibau, and the only private university in Kapuas Hulu District. The education focus is on science and technology based on Islamic Studies. Like other local-based national and private universities, STIT Iqra Kapuas Hulu is also well-known in rural villages in Kapuas Hulu because of their activities such as field practice and community services (KKN), and as the nearest university from the villages. STIT Iqra Kapuas Hulu was listed as one of stakeholders of The Project in Sri Wangi Village.

	FGD participants in Sri Wangi Village thought there is potentially no or very minimal influence of Universitas Kapuas Sintang on The Project, because the university's focus is not related to forests or forest management, thus the score was given the lowest score of 1.1. However, the FGD participants thought the interest of STIT Iqra Kapuas Hulu in The Project was potentially medium (score 3.3), because the university's interest is potentially related with the opportunities to cooperate in research, as data sources for the research and literatures. The Project will have a positive impact (■) to STIT Iqra Kapuas Hulu, even though indirectly, because The Project can inspire new research topics for students or the university researchers, as well as place for field practices and other scientific and social activities.
74. Tourism College of Bandung (Sekolah Tinggi Pariwisata, STP Bandung)	Tourism College of Bandung (<i>Sekolah Tinggi Pariwisata</i>, STP Bandung) is a private university based in Bandung, West Java Province. The education focuses on tourism studies and aims at producing graduates with tourism expertise. Like other local-based national and private universities, STP Bandung is also well-known in rural villages in Kapuas Hulu because of their activities such as field practice and community services (KKN), and due to its cooperation with a local NGO KOMPAKH. STP Bandung was listed as one of stakeholders of The Project in Tanjung Village. FGD participants in Tanjung Village thought there is potentially no influence of STP Bandung on The Project, because the university has finished its project in Tanjung Village, thus the score was given the lowest score of 1. The FGD participants thought the interest of STP Bandung in The Project was potentially very low (score 1), because the university's interest is potentially related with the opportunities to cooperate in research, as data sources for the research and literatures, but no such real interest expressed so far. The Project will have a positive impact (■) to STP Bandung, even though indirectly, because The Project can inspire new research topics for students or the university researchers, as well as place for field practices and other scientific and social activities.
Stakeholder <i>Identify communities and any community groups within them, any cross-cutting community groups, and list other stakeholders</i>	Rights, Interest and Overall Relevance to the Project

5.7 Appendix 2: Project Risks Table

Identify Risk	Potential impact of risk on climate, community and/or biodiversity benefits	Actions needed and designed to mitigate the risk
Capacity of LPHD to effectively manage village forests is not maintained	Expected reductions in deforestation, forest degradation and threats to biodiversity will not be realized.	Activity 1.1: Support for LPHD office building, training, operation, and coordination with stakeholders Activity 1.2 Legal recognition for RKT, RPHD, village forest boundaries, and forest utilization permit
Village forests are not effectively protected from threats	Expected reductions in deforestation, forest degradation and threats to biodiversity will not be realized.	Activity 2.1: Patrol and monitoring for forest and biodiversity, and forest and land fires Activity 2.2: Forest fire prevention and control
Village communities support for village forest management is not maintained	Expected reductions in deforestation, forest degradation and threats to biodiversity will not be realized.	Activity 4.1 Establishing and supporting livelihood activity groups (KUPS) Activity 4.2 Community resilience capacity development Activity 5.1: Raising community awareness on conservation and sustainable development Activity 6.1: Improving and providing support of human resources within the local community