

ANNUAL REPORT 2022-2023



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Project Overview	
Reporting period	2 years 01/01/2022-31/12/2023
Geographical Area	Bujang Raba Landscape, Bungo District, Jambi Province
Technical specifications in use	Avoided deforestation (REDD+)

Summary of Project

PROJECT INDICATORS	HISTORICAL	ADDED/ISSUED THIS PERIOD (2022-2023)	TOTAL
No. smallholder households with PES agreements	n/a	n/a	n/a
No. community groups with PES agreements (where applicable) by Dec 2014	5	-	5
Approximate number of households (or individuals) in these community groups	934 household (3,652 individuals)	-	934 household (3,652 individuals)
Area under management (ha) where PES agreements are in place	5,339 ha	-	5,339ha
Total PES payments made to participants (USD)	362,845.4	109,032	471,877
Total sum held in trust for future PES payments (USD)	n/a	n/a	n/a
Allocation to Plan Vivo buffer to date	75,825	18,956 ¹	94,781
Unsold Stock at Time of Submission: 0			
Saleable Emissions Reductions Achieved (tCO ₂)	140,820	238,280 (reserved for future issuance as project is not currently issuing due to the current uncertainty of the status of the VCM in Indonesia)	379,100
Plan Vivo Certificates (PVCs) requested for issuance this reporting period	37,910Co ₂ eq (2023)		
tCO₂ available for future issuances (in 2014, 2015, and 2019, a portion of emissions reductions were issued and the rest remain)			
2014	32,910		

¹ Half of the buffer units (totaling 18,956 PVCs) were not issued for the current reporting period (2022-2023).

2015	17,910
2016, 2017; 2018	0 All available credits were issued in 2018
2019	35,820
2020	37,910
2021	37,910
2022	37,910
2023	37,910
Total	238.280

Part A: Key Events, Successes, and Challenges

A1. Key Event

a. Installation of Boundary Markers for Protected Zones and Prohibition Signs in 5 Village Forests

One of the goals of installing boundary markers for protected zones is to ensure that the community understands the condition of their forest, its potential, and the boundaries between their village forest and neighboring villages. They should be aware of the boundaries of protected zones and utilization zones. With these markers installed, the patrol team can remind villagers to protect these zones and not allow land clearing within them. Anyone who clears land will be subject to customary sanctions.

The process begins with training the patrol team in patrol techniques and GPS use. The installation duration varies from 1 to 2 weeks depending on the village. Installation starts with placing metal plates along the protected zone boundaries at intervals of 50 meters. At least 95 metal plates were installed in Laman Panjang Village, 120 in Lubuk Beringin Village, 340 in Senamat Ulu Village, 264 in Sungai Telang Village, and 223 in Buat Village. In addition to the protected zone boundaries, 2 prohibition signs for cutting trees were installed at each village forest location.

Challenges faced during the installation of zoning markers and prohibition signs include steep and rugged terrain, which makes it difficult for the patrol section to install the forest stakes, as well as weather challenges like rain, leading to landslides and high river water levels. This necessitates careful timing, preparation, and adequate equipment.

After the installation of boundary markers and prohibition signs, the young patrol group conducts a learning session at the Bujang Raba landscape. They discuss the process of installing boundary markers, including the challenges faced, share field documentation, and present the potential found in the forest, such as previously unknown rare plants, potential waterfalls, and more.



Figure 1: Protection zone boundary markers



Figure 2 : Preparation for boundary markers instalation



Figure 3: Placing a metal plate



Figure 4: Metal plates

- b. During this period, with support from environmental service funding, each LPHD (Village Forest Management Institution) equipped their patrol teams with tools such as GPS devices, tents, handheld radios, patrol uniforms, and village-provided accident insurance. WARSI, as a mentor, provided training on forest patrol monitoring and GPS usage. With these GPS operating skills, the young patrol teams began installing zoning markers and prohibition signs.



Figure 5: Equipment for forest patrol



c. Structuring the LPHD (Village Forest Management Institution)

In the 2022 and 2023 periods, a restructuring of the Village Forest Management Institution (LPHD) was carried out. This was necessary because some management positions had expired, some

members were inactive due to no longer living in the village, other commitments, or a lack of time for LPHD activities. Before the restructuring, a review was conducted to assess what the LPHD had accomplished, what achievements they were proud of, and what areas needed improvement. Additionally, a review was done to identify areas where each section's performance was still lacking.

The review recommendations emphasized the need for increased female involvement. Since certain knowledge and information are controlled by women, their participation in forest management is considered crucial. Consequently, in the restructuring of the LPHD, women's groups were included in the management roles to oversee business areas, the management of utilization zones, medicinal plants, and ornamental plants. Furthermore, youth representatives were also deemed important to be included in the management structure of LPHD. They play a role in conducting activities within the forest area, such as surveying potential resources, forest patrols, and promoting LPHD activities to external parties.



Figure 6: Structuring village forest institution



Figure 7: Women groups were participating in the meeting

d. Capacity Building for youth and women groups

During the reporting period, several trainings sessions were conducted to enhance the capacity of community in the Bujang Raba landscape. The capacity buildings are including:

1. Participatory patrol training, GPUS usage and Avenza map
2. Citizen journalism training
3. Legal drafting Training
4. Designing Annual management plan for village forest
5. Tree adoption survey
6. Youth school
7. Women's school

The impact of these trainings has led to significant changes at the social level, with both women and youth groups experiencing transformative shifts in their approach to natural resource management in the 5 Bujang Raba villages. From the Women's School: Participants have become more outspoken about issues such as river water conditions due to mining and floods that have destroyed their livelihoods, including medicinal plants, vegetables, and rice paddies. In the Women's School, they have realized that their knowledge is valuable and can be heard, leading to the development of a strategic program for the future.



Figure 8: One of activities in the women's school, self identification



Figure 9: Training forest patrol and the GPS usage



e. Combatting Illegal Gold Mining

During this period, illegal gold mining activities occurred in the production forest area directly adjacent to the Kerinci Seblat National Park and Sungai Telang Village Forest. The impact of these illegal mining activities worsened the water quality of the river flowing into Sungai Telang Village and its surroundings. The river water, once clear, became brown and unsuitable for daily consumption. The situation in Sungai Telang Village became even more critical when a flash flood inundated hundreds of hectares of rice fields, residential areas, and livestock, causing significant economic losses for the affected communities.

A critical awareness emerged among youth and women groups, leading them to build social strength to protect natural resources. Utilizing the training they received, the youth group conducted investigations at the illegal gold mining site, took coordinates, photographed evidence, and reported it to security authorities. Meanwhile, the youth members who had participated in citizen journalism training began disseminating this information on social media. As a result, the issue of illegal gold

mining received special attention from both the government and the public.

The youth group also organized the issue through an event called "Diskusi Ngopi Bareng" (Coffee Discussion), involving the Deputy Regent of Bungo, Forest Management unit, Regional Development plan, and other stakeholders to discuss threats to their forest and environment and plan follow-up actions. The event included a theatrical performance, featuring musicians and artists to convey the message about ecological destruction caused by mining in Dusun Sungai Telang. The youth became key speakers in voicing their opposition to unauthorized mining

The government's response to the situation included a joint operation to the illegal mining site. Heavy equipment operators promised to leave the location soon, though one excavator remained in the forest due to damage. However, this turned out to be a pretext, as illegal gold mining activities resumed shortly thereafter.

The youth group organized a demonstration in front of the village office, urging the village head to take firm action against the illegal miners. The fight against the mining activities continues to this day.



Figure 10 : Demonstration in Front of the Village Office Against Illegal Mining



Figure 11 : Demonstration attended by police officers



Figure 12 : Tracing the impact of illegal mining on the village"



Figure 13: Youth serve as speakers for 'Save Sungai Telang, express public anger'

e. Designing Annual management Plan for Village Forest

It is the obligation of social forestry permit holders to prepare an annual plan. This process begins with reviewing the previous year's work plan, evaluating what was accomplished, the results achieved, and areas needing improvement. Then, discussions are held to formulate the plan for

the upcoming year. The annual planning is carried out through a series of meetings with various community stakeholders, including village government, KPH (Forest Management Unit) extension officers, religious leaders, youth and women's groups, and other beneficiaries. Once the annual plan is developed, it is entered into the provided template, reviewed by KPH, and approved by forestry extension officers from KPH. Overall, the annual plan continues to adhere to the project intervention framework, focusing on area management, business management, and institutional development

One of the objectives of designing annual management plan is to strengthen the commitments to reduce carbon emissions (Carbon Returns MoU in 2023 between developers and beneficiaries). The activity aimed to reaffirm the community's commitment to reducing carbon emissions through forest protection even if the rate of deforestation in the project area does not affect the achievement of reducing emissions. The deforestation in the project area, particularly what occurred in 2019, is a green light for the community to be vigilant so that deforestation does not continue to develop. This activity is also used for joint reflection and evaluation of project activities.



Figure 14 : Rapat penyusunan RKT



Figure 15 : Review rencana kerja yang sudah dijalankan



Figure 16 : Identification potency in Forest area

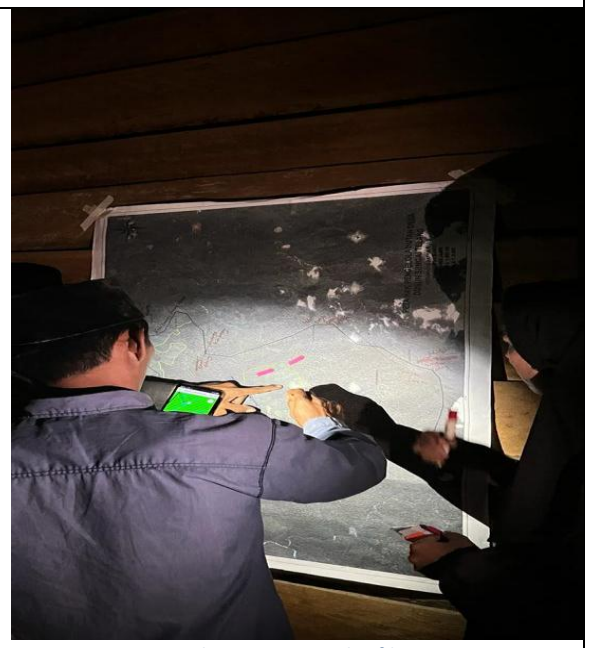


Figure 17 : Signing the potency each of location

f. Strengthening community economic and livelihood

One of the efforts to strengthen the community's economy was formed the Social Forestry Business Group (SFBG). Currently, 3 SFBGs Rattan Manau have been united into A Joint Village-Owned Enterprise (BUMDUSMA), namely "Bukit Telago" in Senamat Ulu village, KUPS "Sako Makmur" in Lubuk Beringin village, and "Batang Mengkuang" Laman Panjang village. The BUMDUSMA is a joint business entity that will support business groups in five villages. BUMDUSMA is expected to be a liaison for business groups in the village with a wider market network. Currently, the Rattan Manau has got buyers from Java and Sumatera Island.



Figure 16. Establishment of social forestry business unit

At the beginning of 2023, a capital grant of 50 million IDR was received from the Ministry of Village Affairs for the Dusun Village Enterprise Agency (BUMDUSMA) to fund the purchase of rattan from farmers. During this period, CV Satria, a rattan distributor, signed a Memorandum of Understanding (MoU) with BUMDUSMA, with support from WARSI and Forest Management unit.

022	Pengualan	28.330.000
	Madal	20.000.000
	Keuntungan Kekas	8.390.000
	Biaya Operasional	5.929.000
	Keuntungan Bersih	2.461.000

NO	TOTAL PEMBELIAN	TOTAL PENJUALAN	Jumlah (Keuntungan)
1	125.801.000	165.314.000	39.513.000

Penjualan: 165.314.000
 Madal: 125.801.000
 39.513.000
 Biaya Operasional 17.091.200
 Keuntungan: ~~22.418.800~~
 Bersih: 22.418.800

Figure 18 : Number of transaction from Rattan



Figure 19 : Transporting Rattan and Manau



Figure 20 : Rattan/Manau warehouse visit



Figure 21: Sign MoU with CV Satria

The social forestry Business group in Sungai Telang village, developing coffee downstream industry, since they have many potencies of coffee. The coffee farmers have received coffee production equipment assistance from the Forest Management Unit (FMU) bungo district, which includes:

- Huller machine
- Roasting
- Grinder machine

In this period, initiated by WARSI dan FMU, the coffee farmers represented by youth groups received training on how to use the coffee production equipment and coffee making.



Figure 22 : Training how to use huller machine



Figure 23 : Roasting coffee



Figure 24: Coffee product in Sungai Telang village



Figure 25: Sorting the green bean

g. Forest enrichment / Agroforestry

The event was held on December 28, 2022, at the Puhong Village Forest area, starting at 09:30 WIB, and was attended by 61 youth from across the Bujang Raba landscape. This activity was organized by Pokdarwis Telang Membara with the goals of reforesting Mount Puhong, fostering connections among the youth, and enhancing the appeal of the Mount Puhong ecotourism development. The planting included red shoot and red meranti seedlings, provided by KKI Warsi, with 335 red shoot seedlings and 2000 red meranti seedlings. Red shoot seedlings were planted along the path leading to the summit of Puhong at a spacing of 5m x 5m. The height of Mount Puhong is 893 meters above sea level, and the red meranti seedlings were planted at the summit. The summit of Mount Puhong is intended to become a future tourist destination.



Figure 26: Number of seedlings for restoration in Gunung Puhong



Figure 27: the condition of Gunung Puhong after forest fire in 2019



Figure 28 : Forest restoration in Gunung Puhong



Women's groups also received support in the form of vegetable and fruit seedlings to be planted around their homes, aiming to improve family nutrition affordably. Fruit trees such as rambutan and longan were planted in gardens and yards. Additionally, KPH Unit II and Unit III of Bungo District supported coffee farmers in Sungai Telang Village with 1,500 coffee seedlings. This support resulted from intensive communication and a proposal initiated by WARSI and the group. In Laman Panjang Village, the local community agreed to enrich their farms with Robusta coffee. They acquired knowledge on how to cultivate it and started growing Robusta coffee seeds.

h. Signing agreement for disbursement carbon funds.

In the carbon benefit distribution system, each year, each village conducts a review of the project's progress, activities carried out, beneficiaries in the benefit distribution system, and other relevant issues depending on the village's context. This review process involves representatives from the village government, forest management committees, youth groups, and other beneficiaries. The goal of the review is to assess the project's achievements, its impacts, and to discuss any areas that were not maximally addressed in the previous year. The notes from this review will serve as recommendations for the project's activities in the coming year. These recommendations will also be included in the budget.

After each village prepares a work plan and indicative budget, a joint meeting is held through the Forum for Village Forest Communication in the Batin Tiga Hulu Subdistrict. All village proposals are presented at this meeting, and the Forum can provide feedback to the villages if there are aspects deemed unsuitable for funding. After undergoing revisions and finalizations, the cooperation

agreement between WARSI and the five villages in Bujang Raba is signed and attended by community representatives. The carbon fund allocation for each village is IDR 200,000,000 each year.



Figure 29: Head of village was signing the agreement



i. Verification project by Mutu Agung International

The activity took place from June 6-8, 2023. The objective of this activity was to validate data and check the consistency of statements between reports and field conditions. The following actions were carried out:

1. **Communication of project document needs** with the project initiator
2. **Desk review of project documents**
3. **Site visits:** inspection of facilities
4. **Interviews** with relevant responsible parties for each project activity and documentation

Verifier: PT Mutuagung Lestari Tbk (MUTU International)

Verification Date: June 2023

Issuance Date: 18 July 2024

Lead Verifier: Dwi Kus Pardianto

Overall Conclusion:

The verification confirmed that the Bujang Raba Community PES Project, managed by KKI WARSI and five Jambi indigenous communities, conforms to the Plan Vivo Standard requirements. No major non-conformities or outstanding corrective actions remain; all findings were closed.

The Bujang Raba Community PES Project effectively delivers measurable climate, biodiversity, and livelihood benefits under the Plan Vivo framework. Minor issues identified during verification were promptly addressed, confirming sustained compliance and strong community engagement.

Key Findings by Theme

1. Project Eligibility

- The project area (7,291 ha across five village forests) is legally recognized under *Hutan Desa* decrees from the Ministry of Forestry.
- Community management and FPIC processes were adequately demonstrated.
- Minor issue: boundary ambiguity in Sungai Telang Village was corrected with clear field markings.

✅ *Conformance achieved (Closed CAR).*

2. Ecosystem Benefits

- The project maintains biodiversity and supports ecosystem restoration.
 - 2019 forest fires affected parts of Sungai Telang; natural regeneration observed.
 - Recommended enrichment planting with multipurpose tree species (MPTS).
 - 120 protected species recorded via camera traps, indicating a healthy ecosystem.
- ✅ *Conformance achieved (Closed CAR).*

3. Project Coordination and Management

- WARSI manages the project transparently, with dedicated financial systems separating PES funds.
 - Communities trained on sustainable livelihoods, patrols, and financial management.
 - Financial reports audited annually.
- ✅ *Full conformance.*

4. Participatory Design and Development

- The project demonstrates strong community ownership, with inclusive participation of women and youth.
 - No evidence of discrimination or livelihood disruption.
 - Clear grievance mechanisms through LPHD forums.
- ✅ *Full conformance.*

5. Quantifying and Monitoring Ecosystem Services

- Monitoring follows national standards (SNI 7724:2011) and Winrock methodology.
 - Ground-truthing and remote sensing data consistently applied.
 - Verified average annual ERs and Plan Vivo Certificates issuance records are accurate.
- ✅ *Full conformance.*

6. Risk Management

- Risks assessed using VCS methodology; a 20% buffer applied (adequate for low-risk context).
- ✅ *Full conformance.*

7. PES Agreement and Benefit Sharing

- PES Agreements follow FPIC principles and protect land tenure rights.
 - At least 60% of carbon revenues distributed to community beneficiaries.
 - Payments are performance-based and reinvested through village institutions.
- ✅ *Full conformance.*

*Detail report on the attachment or on this link below :

https://s3.eu-west-2.amazonaws.com/assets.planvivo.org/documents/bujang_raba_verification_report_2025.pdf

j. Benefit sharing from Community PES Bujang Raba project
Distribution basic food package (Basic necessities)



The number of beneficiaries of basic food package in 2022:

- | | |
|---------------------------|--------------------|
| 1. Laman panjang village | : 205 households |
| 2. Senamat Ulu village | : 349 households |
| 3. Lubuk Beringin village | : 159 households. |
| 4. Buat village | : 340 households |
| 5. Sungai telang village | : 575 households |
| Total | : 1,628 households |

The number of receivers a basic food package each of the villages in 2023:

- | | |
|---------------------------|--------------------|
| 1. Laman panjang village | : 206 households |
| 2. Senamat Ulu village | : 355 households |
| 3. Lubuk Beringin village | : 120 households. |
| 4. Buat village | : 354 households |
| 5. Sungai telang village | : 585 households |
| Total | : 1,628 households |

Social funds :

The allocation of carbon credit was also reached the marginalized and poor groups, it was distributed to orphans, scholarship program for outstanding students, and disabled people in each village. The data of vulnerable people can be accessed from the Village Information system (VIS).



Figure 30: Social fund for scholarship



Figure 31: Social funds for Orphan

The carbon fund is the result of the sale of carbon in the Village Forest in the Bukit Panjang Rantau Bayur landscape managed by five villages. In this reporting period, these five village forests received funds of 1 million IDR which were divided equally, 200,000,000 IDR each village. Each of the village design the program and activities for disbursement, the activities related to social fund, capacity building, building infrastructure, forest patrol and monitoring, allocation for women group, as illustrated as follow :

Building infrastructure in the village

The distribution of carbon credit is also used to support infrastructure in the village such as fixing the hanging bridge in Laman Panjang village, making a signing board for the Village forest, building a volleyball field, and renovating the mosque.



Figure 32 : Renovating Mosque



Figure 33: Building LPHD office



Figure 34: Renovating coffee production house in Senamat Ulu



Figure 35: Renovating hanging Bridge in Laman Panjang Village





Figure 36: Re-painting the Lubuk Beringin village office

k. National and Sub-national events

Since Bujang Raba is quite well known as one of the models of voluntarily PES project based on community, there are several studies, field visit and media touring to the area of Bujang Raba, including :

- a. Field visit from the government of North Bengkulu, they were interested to learn about the role of social forestry for sustainable forest management.
- b. Field visit from the community of Riau Province, facilitated by YMKL (yayasn Masyarakat kehutanan lestari). They are interested to learn the local management for social forestry
- c. **National Research and Innovation Agency (BRIN)**. It is an Indonesian government agency responsible for research, development, and innovation in the country, they conducted a research about the role of social forestry for the achievement of NDC
- d. **Cambridge university, conducted research about "Smart Forest"**
- e. Media filming, SET TV Taiwan, overviewed about forest and carbon pricing
- f. Media Kontan, overviewed about **Exploring Village Economy** refers to examining the village forests within the Bujang Raba Landscape from an economic perspective. The Bujang Raba Forest remains sustainable due to the collaboration of five villages in preserving the forest's health

National event: as resource person in soma events related to carbon and social forestry



National and sub national events

A2. Key Successes and Challenges

In this 2022 - 2023 report period, we found some keys to success and challenges as follows:

1. The contribution for ecosystem services derives from Bujang Raba has significant meaning to the community. PES funds can be used to implement village council's work plan in forest management, development, infrastructure for public facilities, capacity building and social assistance.
2. Currently, the government is preparing technical regulations on the economic value of carbon, this has an impact on the restraint of carbon transactions, so that the amount of funds to support activities is reduced.
3. Finding alternative environmental services through Tree Adoption program
4. The increasing economic needs make it a challenge to maintain forest land and manage the forest without logging timber and expanding farming land

A3. Project developments

In this period, many activities were dominated by the distribution of benefits from the proceeds of carbon credit. The distribution of benefits is determined in a participatory manner with the community, and is adjusted to the needs of each village. Each of village proposed activities based on the agreed budget to WARSI, and WARSI assist for the disbursement. All financial report and progress reports are reported to WARSI. To support the distribution of benefits can be done in a transparent and accountable manner, the community is given training on administration and finance. The use of finance is also supervised in layers, ranging from the level of village facilitators, Warsi's financial team, to external auditors. Due to the incomplete regulatory problems at national level, there are no carbon credit transactions in this period, and no transactions will be carried out until there is clarity of regulation. The activities carried out in this period are still supported by the proceeds from sales in the previous period.

In term of forest protection, during the reporting period, the Bujang Raba community succeeded to maintain the forest area. Based on the Citra Satellite analysis imaginary, there was no deforestation in the project area.

In the element of socio economics, there were improvement in developing alternative income. More training and access information exposure to the local community has increased innovation for economic. In the past local community was only farmers and selling the raw materials. The 3-business unit of coffee has succeeded to process coffee powder and green beans; hence it has improved the

added value of the product. The business of rattan Manau has also become source of income generating from landless farmers to supply their livelihood. The Village-owned enterprise is collecting the rattan from the community and selling to the off taker.

In the context of Institutional management of Social forestry, more leaders raise from the youth and women groups. They become more active in the management of social forestry. Their voice become hearing, and their ability to capture information and new technology is becoming increasingly rely upon. They starting deliver their idea in front of public.

The critical thinking of local community about environment is increasingly raise. The activities of illegal gold mining which affected their river has been advocated into public, through social media, audience, and communication with the decision makers. Not only that, the youth group also held demonstration to the village office, urging the head of village take action combatting illegal gold mining.

PART B: PROJECT ACTIVITIES

Forest protection and monitoring

Deforestation monitoring is conducted periodically or incidentally using remote sensing with Citra satellite imagery analysis. to observe sudden events like forest fires WARSI used utilize remote sensing technology such as NOAA Satellites, Terra/Aqua MODIS to detect early hotspots. During the reporting period, there was no forest fire and deforestation occurred in the project area.

In the policy context, area zoning is also one of the elements used to develop the Social Forestry Work Plan (RKPS) for a period of 10 years. Monitoring protected zones has been included in village forest annual management plan.

After the installation of boundary markers in the protected zone and prohibition sign, both local community and outsiders are aware the boundary between the protected zone and the utilization zones.



Figure 37: forest patrol with young patroler



Figure 38: taking notes some findings



Figure 39: labeling the zonation tag



Figure 40: briefing before going to the forest



Figure 41: finding flower - not identified yet



Figure 42: flowers in the forest

Forest Enrichment in the utilization zone

Rubber, cacao, coffee, cardamon, betel nut (areca), dragon blood (rattan-esque, vine) all provided and planted in the utilization zone, garden, or farming areas to provide multi-layer income to support the entire community. During the reporting period, the project has succeeded planting around 1,500 fruits seedlings and coffee seedlings on the utilization zone and the farming land area.



Figure 43: Distributing the seedlings to the community



Figure 44: Checking the condition of the seedlings

Developing Tree adoption:

During the reporting period, there is an idea to develop tree adoption program, where inviting public to participate in forest conservation by adopting the tree. This program raises positive attention from the public in the city. They dedicate the birthday gift to their loved one by adopting the tree. In Bujang Raba, the potency of big tree with the diameter up to 60cm is extensively many. In one side, the adopted tree will raise public awareness to protect the forest, on the other side, can increase revenues for the village and can funds any other activities for forest protection.



Figure 45: Survey tree adoption



Figure 46: survey the tree for adoption program



Figure 47: measuring the diameter



Figure 48: Measuring the diameter

Strengthening Village Forest governance

In the 2022 and 2023 periods, a restructuring of the Village Forest Management Institution (LPHD) was carried out. This was necessary because some management positions had expired, some members were inactive due to no longer living in the village, other commitments, or a lack of time for LPHD activities. Before the restructuring, a review was conducted to assess what the LPHD had accomplished, what achievements they were proud of, and what areas needed improvement. Additionally, a review was done to identify areas where each section's performance was still lacking.

The review recommendations emphasized the need for increased female involvement. Since certain knowledge and information are controlled by women, their participation in forest management is considered crucial. Consequently, in the restructuring of the LPHD, women's groups were included in the management roles to oversee business areas, the management of utilization zones, medicinal plants, and ornamental plants. Furthermore, youth representatives were also deemed important to be included in the management structure of LPHD. They play a role in conducting activities within the forest area, such as surveying potential resources, forest patrols, and promoting LPHD activities to external parties.

Community capacity Improvement

During the reporting period, several trainings sessions were conducted to enhance the capacity of community in the Bujang Raba landscape. The capacity buildings are including:

- Participatory patrol training, GPUS usage and Avenza map
- Citizen journalism training
- Legal drafting Training
- Designing Annual management plan for village forest
- Tree adoption survey
- Youth school
- Women's school

The impact of these trainings has led to significant changes at the social level, with both women and youth groups experiencing transformative shifts in their approach to natural resource management in the 5 Bujang Raba villages. From the Women's School: Participants have become more outspoken about issues such as river water conditions due to mining and floods that have destroyed their livelihoods, including medicinal plants, vegetables, and rice paddies. In the Women's School, they have realized that their knowledge is valuable and can be heard, leading to the development of a strategic program for the future.

B1. Project activities generating Plan Vivo Certificates

Table B1: Project activity summary

Name of technical specification	Area (Ha)	No smallholder households	No Community Groups
REDD+	5,336		5 villages

B2. Project Activities in Addition to those Generating PVCs

Legal drafting training

Legal drafting training is a training how to design legal product at the village. The activity is carried out in 4 days, where activities on days 1 and 2 were made inventory the problems in the village and provide an understanding of the authority of the village, types, and uses of legal products in the village. On day 3, local community get understanding of the flow of making legal products in the village, the framework of village legal products and the technical implementation this legal product. On the 4th day we carry out the practice of discussing and promulgating village legal products. The participants involved in this activity were approximately 30 people consisting of village governments, village legislative, representatives of rural institutions, representatives of community leaders, representatives of women and representatives of youth. Local community makes exercise how to make legal product related to the management of natural resources. The following up of this training how to design the legal product together with the village apparatus.

Part C: Plan Vivo Certificate issuance submission

C1. Contractual statement

This issuance is based on signed PES agreements with participants complying with all the minimum requirements stated in these agreements. Every year, the WARSI and the five villages in Bujang Raba renew the commitments to run the project as shown the photo below:



Table C1: Historical Analysis of PVCs available for issuance

Vintage	Area (ha)	Tech. Spec	Total tCO ₂ achieved per period 1	% buffer 2	No. of PVCs allocated to the buffer account 3	Saleable PVCs achieved that period 4 (1-4)	PVCs issued from this vintage	Saleable PVCs remaining that vintage (PVCs that have not been issued) 5	PVCs available from previous period (cumulative sum of 5 from previous periods NOT INCLUDING CURRENT)
2014	5,336	REDD +	47,388	20%	9,478	37,910	5,000	32,910	0 (start of project, none from previous period)
2015	5,336	REDD +	47,388	20%	9,478	37,910	20,000	17,910	0 (start of project, none from previous period)
2016	5,336	REDD +	47,388	20%	9,478	37,910	37,910	0	50,820 & 5,000 issued in 2015)
2017	5,336	REDD +	47,388	20%	9,478	37,910	37,910	0	50,820
2018	5,336	REDD +	47,388	20%	9,478	37,910	37,910	0	50,820
2019	5,336	REDD +	47,388	20%	9,478	37,910	2,090	35,820	86,640
2020	5,336	REDD +	47,388	20%	9,478	37,910	0 (No PVCs issued this period due to changes in VCM regulations in Indonesia)	37,910	124,550
2021	5,336	REDD +	47,388	20%	9,478	37,910	0 (No PVCs issued this period due to changes in VCM regulations in Indonesia)	37,910	162,460
2022	5,336	REDD +	47,388	20%	9,478	37,910	0	37,910	200,370

							(No PVCs issued this period due to changes in VCM regulations in Indonesia)		
2023	5,336	REDD +	47,388	20%	9,478	37,910	0 (No PVCs issued this period due to changes in VCM regulations in Indonesia)	37,910	238,280
TOTAL	5,336		473,880	20%	94,781²	379,100	140,820	TOTAL SALEABLE PVCs not yet issued on Market: 238,280	

Table C2: Issuance Request for reporting period 01/01/2022 – 31/12/2022 and 01/01/2023 – 31/12/2023
(made based on ongoing activities on land already managed by the project)

Vintage	Area (ha)	Total tCO2 achieved this period*	% buffer	No. of PVCs allocated to the buffer account	Saleable PVCs	No. PVCs requested for issuance from saleable	tCO2 available for future issuances
2022	5,336	47,388	20%	9,478	37,910	0	0
2023	5,336	47,388	20%	9,478	37,910	0	0
TOTAL	5,336	236,940	20%	47,930	189,550	15,000	7,910 remaining after this issuance

Available for issuance

Available for Issuance	
2014	32,910 tCO2 (5,000 were issued)
2015	22,910tCO2 (5,000 were issued 2015, 15,000 issuing 2020 to 2021)
2016	0 tCO2 (all issued)
2017	0 tCO2 (all issued)
2018	0 tCO2 (all issued)
2019	35,820 tCO2 (2,090 issued 2019)
2020	37,910 tCO2 (0 issued)
2021	37,910 tCO2 (0 issued)
2022	37,910 tCO2 (0 issued)
2023	37,910 tCO2 (0 issued)
TOTAL	243,280tCO2

² This increase of one extra unit in the Buffer can be attributed to an additional unit issued on the registry during reporting periods of 2014-15 and 2016-17 due to rounding off the decimal values.

Table C3: Allocation of issuance request

Buyer name/ Unsold Stock	No. PVCs transacted	Markit ID (if available)	Tech spec
TOTAL			

C3 Data to support issuance request

Please refer to Section E1 and Annex 1.

Part D: Sales of Plan Vivo Certificates

Table D1: Sales of Plan Vivo Certificates

Tables for sales of PVCs have been divided according to the years of the sales. This is because the community, project, and government payment split is different in some years. Also, the amount reserved for the community and the amount disbursed varies. Some years more is disbursed to the community than PVCs sold and some years less is disbursed to the community than PVCs sold.

PVCs Sold in 2018

Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***
2018	2014-2015	Zero mission	6,009	\$6	\$36,054	\$3.6	60%	\$21,632.4	\$23,432.4	\$0
2018	2015	Zero mission	500	\$6	\$3000	\$3.6	60%	\$1,800		
Total sales				\$39,054	Total to participants in 2018****		\$23,432.4			

***Base on 60/40 split**

**** amount disbursed to community based on their activity proposals**

*****amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust**

******This figure is the total amount reserved for participants, not necessarily the total amount that is disbursed to participants. The amount disbursed is based on the community's request for funds for their project proposals**

Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***
2019	2015	Zero mission	500	\$6	\$ 3,000	\$3	50%	\$1,500	1 billion IDR for all of 2019 (\$72,505 based on \$13,972 USD IDR conversion rate)	\$103,252
2019	2015	Zero mission	7,343	\$6	\$44,058	\$3	50%	\$22,029		
2019	2015	Zero mission	345	\$6	\$2,070	\$3	50%	\$1,035		
2019	2015	C-level	125	\$6	\$750	\$3	50%	\$275		
2019	2016-2017	Zero mission	50,000	\$6	\$300,000	\$3	50%	\$150,000* ****		
2019	2017	Zero mission	306	\$6	\$1,836	\$3	50%	\$918		
Total sales					\$357,714	Total to participants 2019* ***		\$175,757	Disbursed to community: \$72,505	In trust: \$103,252

*Base on 50/30/20 split where 50% goes to the community, 30% goes to WARSI, and 20% is reserved for the Indonesian government in case the legislation requires payment for VCM projects

** amount disbursed to community based on their activity proposals

***amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust

****This figure is the total amount reserved for participants, not necessarily the total amount that is disbursed to participants. The amount disbursed is based on the community's request for funds for their project proposals

*****2019 is when disbursements began and included payments from previous vintages. Note that disbursements in 2022 onwards may include vintages of 2015 or previous

Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***
2020	2017	Zero mission	75	\$6	\$450	\$3	50%	\$225	1 billion IDR (\$68,951)	\$92,248
2020	2017	Zero mission	460	\$6	\$2,760	\$3	50%	\$1,380		
2020	2017-2018	Zero mission	50,071	\$6	\$300,426	\$3	50%	\$150,213		
2020	2018	Zero mission	3,127	\$6	\$18,762	\$3	50%	\$9,381		
Total sales				\$322,398		Total to participants****		\$161,199	Disbursed to community \$68,951	In Trust \$92,248

*Base on 50/30/20 split where 50% goes to the community, 30% goes to WARSI, and 20% is reserved for the Indonesian government in case the legislation requires payment for VCM projects

** amount disbursed to community based on their activity proposals

***amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust

****This figure is the total amount reserved for participants, not necessarily the total amount that is disbursed to participants. The amount disbursed is based on the community's request for funds for their project proposals

Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***	Funds withdrawn from trust
2021	2019	Zero mission	819	\$6	\$4,914	\$3	50%	\$2,457	1 billion IDR (13876) \$72,066	None left over*****	\$69,609 (\$72,066-\$2,457)
Total sales				\$4,914		Total to participants****		\$2,457	Disbursed to community***** \$72,066		

*Base on 50/30/20 split where 50% goes to the community, 30% goes to WARSI, and 20% is reserved for the Indonesian government in case the legislation requires payment for VCM projects

** amount disbursed to community based on their activity proposals

***amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust

****This figure is the total amount reserved for participants, not necessarily the total amount that is disbursed to participants. The amount disbursed is based on the community's request for funds for their project proposals

*****No funds put into trust this year. 1 billion IDR was given to the community from previous years' trust.

*****In 2021, there were not enough sales to allocate money to the trust because the sales were less than 1 billion IDR that is reserved for the community every year. Therefore, money was taken from the trust amount to reach the 1 billion IDR

Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***	Funds withdrawn from trust
2022	2015	COTAP	5,583	\$13.5	\$75.370,5	\$6.75	50%	\$37.685	1 billion IDR (13876) \$72,066	None left over****	\$34.381 (\$72,066-\$37.685)
Total sales				\$75.370,5		Total to participants****		\$37.685	Disbursed to community*****		
									\$72,066		

*Base on 50/30/20 split where 50% goes to the community, 30% goes to WARSI, and 20% is reserved for the Indonesian government in case the legislation requires payment for VCM projects

** amount disbursed to community based on their activity proposals

***amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust

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Year of Sale	Vintage	Buyer	No of PVCs	Price per PVC (\$)	Amount of total sale	*Price to participants	% Sale price received by participants	Total to Participants	Expenditure**	Left over***	Funds withdrawn from trust
2023											
0	0	0	0	0	0	0	0	0	0	0	0
Total sales						Total to participants****			Disbursed to community*****		
									\$72,066		

*Base on 50/30/20 split where 50% goes to the community, 30% goes to WARSI, and 20% is reserved for the Indonesian government in case the legislation requires payment for VCM projects

** amount disbursed to community based on their activity proposals

***amount left over (not given to community) is due to a lack of need based on the budgets of proposed projects from the community, amount left over is saved in trust

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Part E: Monitoring Results

Table E1: Monitoring Results

ACTIVITY	ACTIVITY INDICATOR (MEASURE ANNUALLY)	ANNUAL TARGETS		
		TARGET	RESULTS	MITIGATING ACTIONS IF APPLICABLE
Forest Carbon Stock Monitoring	Remote Sensing of Project Area	Annually	In the reporting period 2022 - 2023: satellite imagery did not detect any deforestation in the project area	n/a forest patrol and ground checking
	Remote Sensing of Project Area	Ex-forest fire	Carried out in 2022 -2023 Already covered in light green and it turned into shrub (nature regenerative)	After 7 years (nature regenerative) it turns into secondary forest level 1.
	Fixed point photography taken by community members	Every 2 years	We were unable to take fixed photo points, local community conduct forest patrol regularly	Forest patrol
Forest Condition	Patrols carried out by community	2 times per year (2 per community)	In the period 2022-2023, no illegal encroachment occurred in the project area. This can be seen in Appendix 2	Tagging/signboard zonation in protected zone
	Analysis Deforestation due to illegal	<794.8 without project intervention	Up to 2023 it was projected <794.8 4ha deforested without project	Forest patrol and give awareness raising to the

	encroachment (2013-2023)	(Table 13 of PDD)	intervention, but in reality 117,7 ha deforested due to illegal encroachment and forest fire	local community to not cut the forest.
	Logging and/or Forest Clearance in Leakage Zone	0 ha	0 ha	Provide awareness raising and education to the local community about the forest protection.
Land Use Change Monitoring	Land cleared for agroforestry in the forest	0 ha cleared	In the period 2022-2023, no illegal encroachment occurred	Provide awareness raising and education to the local community about field findings.
	Land cleared for smallholder oil palm plantations	0 ha cleared	0 ha	Provide awareness raising and education to the local community about the forest protection.
Biodiversity Monitoring	Biodiversity Surveys and photography (camera trap)	annually	120 species of animals from 20 families were successfully recorded by camera, most of the animals are protected animals in Indonesia and internationally (IUCN CITES list). The largest species found is in the form of carnivores which identify that this area is still in a stable ecosystem and becomes a natural habitat for many wildlife.	Provide awareness raising and education to the local community about forest protection.

Water Availability	Monitoring of water supply to generate micro hydro power, clean drinking water, agricultural irrigation	Continuous water supply	Water has been continuously provided and there was no limited availability	
Socio-economic Monitoring	Establishment and access to nurseries for marginalized people	Access for 50 people in 5 village forest areas	Seeds have been planted in the communities' farming area	More seeds need to be distributed to the farmers.
	Income	Increase	Number of commodities are prepared such as coffee, cocoa, eco tourism	
	Women enterprise	increase	Women group has started developed a business	
	Strengthening VFC	5 Design village forest annual plan	5 Village forest management plan is implemented	
	Law enforcement	Design village regulation about natural resource management	Training legal drafting	The village regulation about the natural resource management is ready
	Increase access for poor and marginal community member to health care and social service	Poor and marginal community get access of social service	Poor and marginal community get access financial support from carbon credit such as cash money, basic necessities, scholarship for students.	Allocation budget for poor and marginal group on benefit sharing
	Expenditure for PES fund	Each of village has management plan	5 villages in Bujang Raba have designed annual management plan	

	Agreed management plan for PES	Each of village has agreed on their management plan	The management plan is approved by the head of village	
	Trainings delivered to the communities	4 trainings	1 st training on how to develop coffee nurseries 2 nd training on how to harvest rattan in sustainable way 3 rd training on how to design village regulation 4 th training on forest patrol	

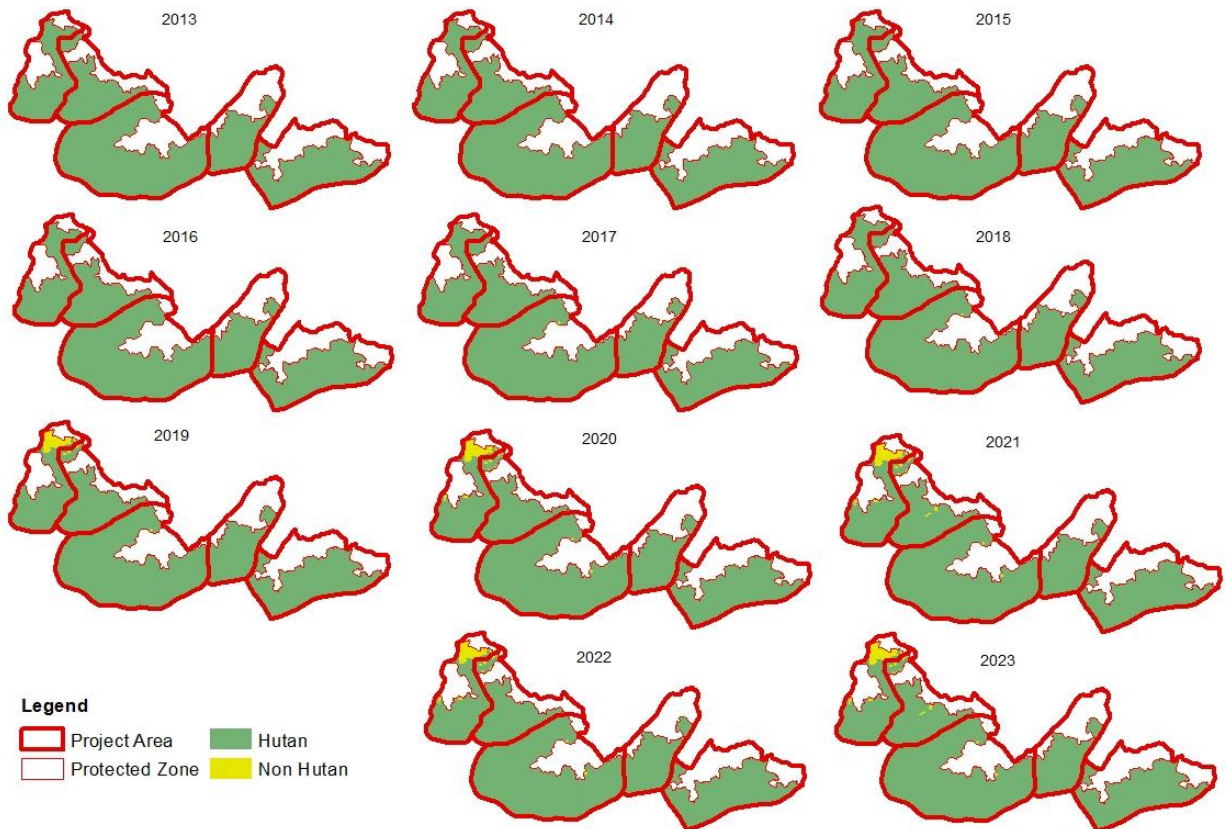


Figure 37: Citra satellite for forest cover

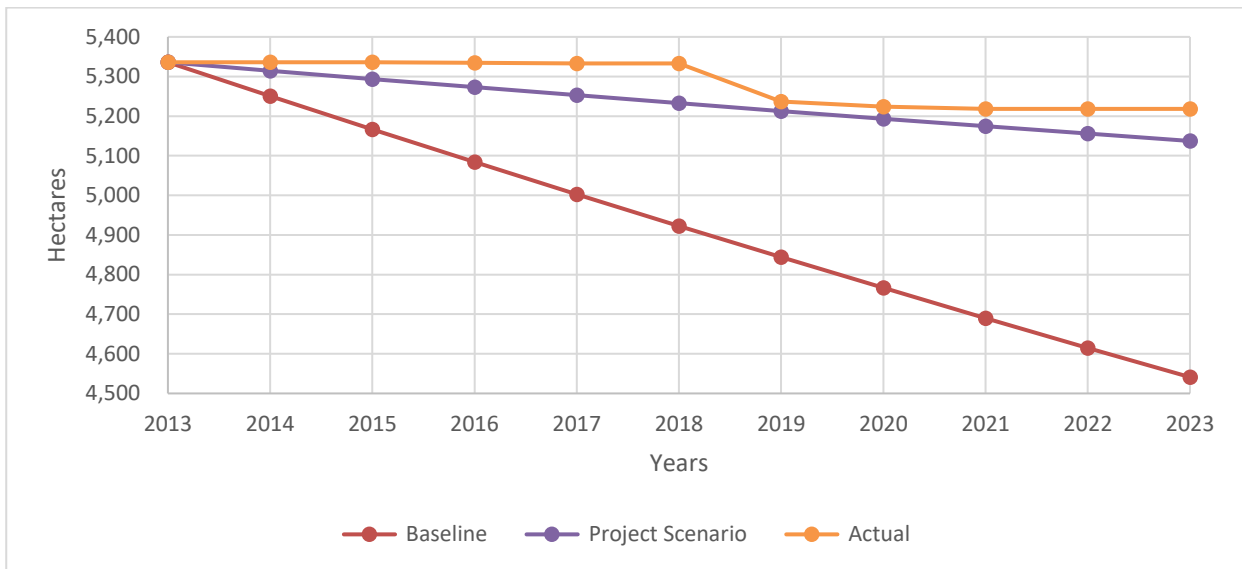


Figure 49: Graphic baseline, project scenario, and actual forest cover in Bujang Raba

From figure 37, forest cover from 2013 - 2018 tended to be stable, although deforestation was relatively small, due to illegal encroachment. While major deforestation occurred in 2019, due to extreme hot weather (El Nino) that caused forest fires, which not only occurred in the project area, but in many other areas in Indonesia. Likewise, from the period of 2020 to 2021, if any minor deforestation was found, it was due to illegal encroachment. Based on the above facts, deforestation in the project area is high and predictable. But in 2022 to 2023, the community's performance in suppressing deforestation was very good, so no deforestation occurred in that year. Local communities understand that it is difficult to avoid deforestation to zero, so they are committed to preventing deforestation by 75% in the project area. Nonetheless, from 2014 - 2023, the performance to reduce deforestation in the project area exceeded the set target (see graph 1).

Table E2: Percentage the Annual Thresholds and Targets for Project Performance Monitoring based on total of deforestation

Year to	Year	Forest Cover (FC)					
		Baseline		Project Scenario (PS)		Actual (Progress)	
		ha	%	ha	%	ha	%
0	2013	5,336	100.0%	5,336	100.0%	5,336.0	100.0%
1	2014	5,251	98.4%	5,315	99.6%	5,336.0	100.0%
2	2015	5,167	96.8%	5,294	99.2%	5,336.0	100.0%
3	2016	5,084	95.3%	5,273	98.8%	5,334.6	100.0%
4	2017	5,003	93.8%	5,253	98.4%	5,333.2	99.9%
5	2018	4,923	92.3%	5,233	98.1%	5,333.2	99.9%
6	2019	4,844	90.8%	5,213	97.7%	5,236.6	98.1%
7	2020	4,766	89.3%	5,194	97.3%	5,224.0	97.9%
8	2021	4,690	87.9%	5,175	97.0%	5,218.3	97.8%
9	2022	4,615	86.5%	5,156	96.6%	5,218.3	97.8%
10	2023	4,541	85.1%	5,137	96.3%	5,218.3	97.8%

Description:

C= Baseline emission by 1.6% per tahun

D = Project Scenario (75%) of baseline forest area remaining in hectares per project year

E = Actual remaining forest area in hectares per project year

Graph 1 : The baseline, project scenario and progress of forest cover in Bujang Raba landscape

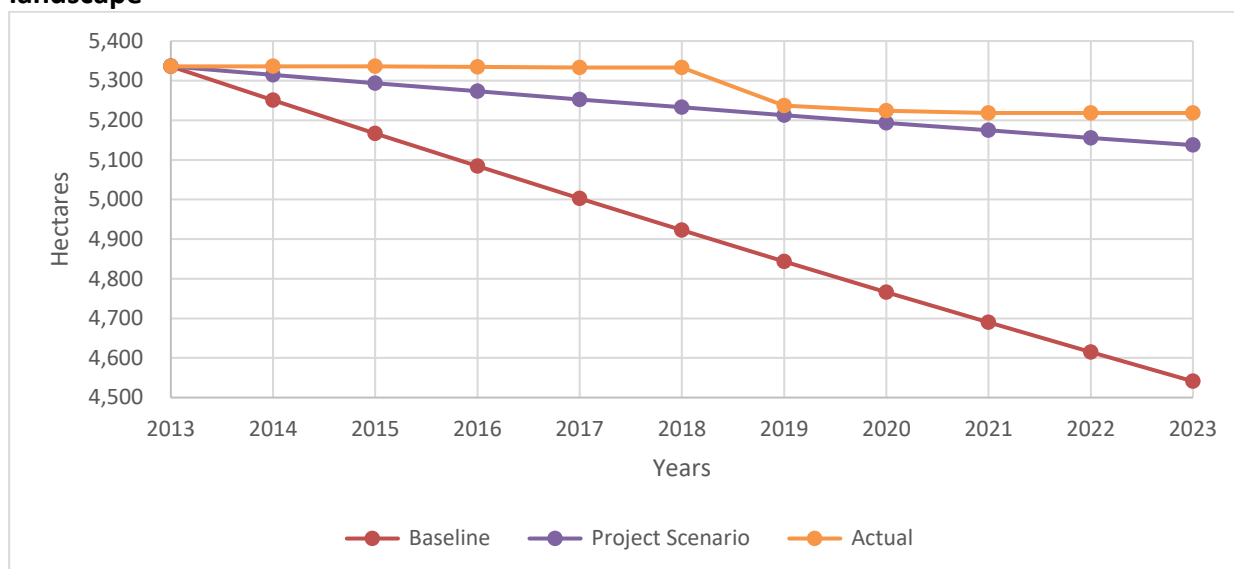


Table E3: Annual Thresholds and Targets for Project Performance Monitoring based on total of deforestation

Year to	Year	Baseline deforestation (ha)		Project scenario (ha)		Actual deforestation (ha)	
		annually	total	Annually	total	annually	Total
1	2014	85.4	85.4	21.3	21.3	-	-
2	2015	84.0	169.4	21.0	42.3	-	-
3	2016	82.7	252.1	20.7	63.0	1.4	1.4
4	2017	81.3	333.4	20.3	83.3	1.4	2.8
5	2018	80.0	413.4	20.0	103.3	-	2.8
6	2019	78.8	492.2	19.7	123.0	96.6	99.4
7	2020	77.5	569.7	19.4	142.4	12.6	112.0
8	2021	76.3	646.0	19.1	161.5	5.7	117.7
9	2022	75.0	721.0	18.8	180.3	-	117.7
10	2023	73.8	794.8	18.5	198.8	-	117.7

Deforestation in this Period Explained

During this annual reporting period (2022-2023) no deforestation occurs within the Bujang Raba project area, so the deforestation area is above the threshold (as shown in Table E2, Graph 1, and Table E3). Table E3 shows that, with a baseline of 1.6% per year, the deforestation rate in the project area in 2023 will reach 794.8 hectares. The project created an emissions reduction scenario with a target of 75%, so the projected deforestation will decrease to 198.8 hectares. However, thanks to the project's efforts, the deforestation reduction is smaller, reaching 177.8 hectares.

The calculations in Table E2 show that by the reporting period of this project in 2023, the percentage of forest cover remaining from the original forest cover at the start of the project in 2013 (5,336 ha) is projected to be 4,541 (85.10%), with the project scenario targeting a 75% reduction in emissions the forest cover will be 5,137 (96.3%). But thanks to the project's achievements the remaining forest cover in 2023 could exceed the project scenario target of 5,218.3 (97.8%).

E2: Maintaining commitments

No community group resigned from the project within the reporting period

E3: Additional monitoring

Currently, women's enterprises such as traditional food and handy craft were not running well, due to the slow market affected post Covid 19. From the carbon credit, women group develop new business which can be done from at home. For example, the woman group in Laman Panjang get support 2 unit of sewing machines and get training how to use it. The sewing machine will be very useful for the women group to fix the rip clothes at home, and anyone in the village can access the machine. The women group in Lubuk Beringin get support from carbon credit such as wedding decoration, the costume and decoration are for rent for anyone in the village who will hold wedding ceremony. The women group in Sangi Letung get support from the carbon credit for cookware. The cookware is also for rent for the local community who hold any ceremony and needs plates, cups, basin, stove, and so on.

The regulation about village also encourage village to have their own income, so the project is successful to establish village Joint village-own enterprises in 5 villages in Bujang Raba with the commodity is rattan. The Bujang Raba Forest has high potential rattan, which part of NTFP. In 2020 – 2021, the joint village-own enterprises have sold the 3-truck container of rattan to buyer, with the sales turnover reached more than 13 million IDR. The process collecting rattan usually conducted by low-income family who highly depend on their live from forest resources. The village-own enterprises set the size of the rattan and provide the rattan workshop before transporting to buyers. In the future, the local community plans to expand their capacity to make handicraft product.

Table 1 : Rattan sales

	January 2021	April 2021	Sept 2021
Rattan	406 unit	597 unit	643 unit
Sales turnover	4.933.000	6.366.750	13.624.500

Rattan sales have discontinued because it has become difficult to find rattan in the forest, and the cost of harvesting it is not compatible with the market price. Therefore, it is no longer cost-efficient.

Table E3: NTFP commodities

Table E3 reflects focus on some new NTFP commodities, which have been planted for the last two years

No	NTFPs	Number of seeds	Number of beneficiaries	Location
1.	Cinamon	6.224	53	Laman Panjang village
2.	Lengkeng	340	10	Buat village
3.	Cinamon	2.136	24	Senamat Ulu
4.	Chili	3,900	39	Senamat Ulu
5.	Rambutan	3,900	39	Senamat Ulu

6.	Meranti	2,000	45	Sungai Telang
	Total	18,500	210	

The more the quality of life improves the more the community gets access to medical services. This access comes from the district government, the project allows for the enjoyment of free medical services from the clinic. With regards to sanitation, more people are aware of its importance. There has been a lifestyle and behavior shift which now allows for community members to use the toilet at home as opposed to the river.

At this time, the average production of rubber in Bujang Raba is 700 kg per month and local community is interested to develop coffee and areca nut, because the demand of coffee and areca nut are high and as an additional income besides rubber. The areca nut will be planted surrounded coffee as the fence of the plantation.

E4 : Environmental and biodiversity monitoring

Environmental and biodiversity monitoring focus on tracking forest cover indicators, as discussed above. Ground-based patrols will monitor indicators like illegal encroachment area, forest fire, and some mitigation action. The biodiversity tracked through the monitoring through installing camera traps (see annex 2).

E5 : Summary of Payment Received for Sale of PVCs

<u>no</u>	<u>Vintage of Sold PVCs</u>	<u>TonCo2</u>	<u>Price/unit (USD)</u>	<u>Total (USD)</u>
1	2014	5,000	6	30,000
2.	2015	5,000	6	30,000
3	2016	37,910	6	227,460
4	2017	37,910	6	227,460
5	2018	37,910	6	227,460
6	2019	2,090	6	12,540
7	2015	8,881	13.5	119,893.5
		134,701		874,814

Part F: Impacts

Some media publications promote the initiatives of Bujung Raba and have drawn public attention

No	Media	date	Link Berita
1.	Kontan	16 May 2023	jelahekonomi.kontan.co.id/ekonomidesa/news/dana-karbon-hasil-melestarikan-hutan-lindung-bujung-raba
2.	KBR.ID	22 Feb 2022	https://kbr.id/berita/saga/berkah_karbon_komunitas_penjaga_hutan_bujung_raba
3.	Kontan	28 May 2023	https://jelahekonomi.kontan.co.id/ekonomidesa/news/menjaga-hutan-tetap-lestari-pembeli-karbon-mengalirkan-rezeki
4.	Katadata	29 August 2023	https://katadata.co.id/ekonomi-hijau/investasi-hijau/64edaa7040dd4/jadi-syarat-wajib-bursa-karbon-pemilik-proyek-keluhkan-sistem-srn-ppi#google_vignette
5.	Fortune	10 Feb 2022	https://www.fortuneidn.com/news/friana/menadah-berkah-karbon-di-perhutanan-sosial?page=all
6.	Kontan	7 March 2023	https://jelahekonomi.kontan.co.id/ekonomidesa/video/MMAaBpDtzTE
7.	Kumparan	27 Juni 2022	https://kumparan.com/kumparanbisnis/b20-indonesia-perkuat-peran-komunitas-masyarakat-dalam-perdagangan-kredit-karbon-1yLz6TAiW2M/4
8.	Kontan	17 August 2023	https://tv.kontan.co.id/video/prgrwFHAnR8
9.	CNBC	27 June 2022	https://www.cnbcindonesia.com/news/20220627181951-4-350797/indonesia-perkuat-peran-komunitas-dalam-fungsi-kredit-karbon

Part G: Payments for Ecosystem Services

Table G1: Summary of payments made and held in trust

1. Reporting year	2. Total Previous Payments to Community*	3. Ongoing payments to community**	4. Total Payments for community (2+3)***	5. Total Payments Held in Trust	6. Total Payments Withheld
2018	0	\$23,432.4 (based on 2018 IDR to USD conversion at IDR 12,166)	\$23,432.4	\$0	0
2019	\$23,432.4 (based on 2018 IDR to USD conversion at IDR 12,166)	\$175,757 (based on 2019 IDR to USD conversion at IDR 13,793)	\$200,415	\$103,252	0
2020	\$199,189.4	\$161,199	\$360,388.4	\$92,248	0

	(\$23,432.4+\$175,757)	(based on 2020 IDR to USD conversion at IDR 14,503)			
2021	\$360,388.4 (\$199,189.4+\$161,199)	\$2,457 (based on 2021 IDR to USD conversion at IDR 13,876)	\$362,845.4	No payments held in trust	0
2022		\$2,457 (based on 2021 IDR to USD conversion at IDR 13,876)	362,845.4		
2023		\$2,457 (based on 2021 IDR to USD conversion at IDR 13,876)	362,845.4		
TOTAL To community:			\$362,845.4	\$195,500 total held in trust****	
Total of payments made, payments held in trust, and payments withheld: \$558,345					

*(cumulative of previous reporting periods)

** (payment made during associated reporting period)

***This is the total reserved for the community from all sales, the amount distributed may be more or less than the sales for that year. This is because the community submits activity proposals to WARSI along with a budget, if the budget is less than total sales that year, less is distributed. If the budget is more than sales that year, the disbursement will come from the trust/left over funds from sales of previous years

****\$69,609 withdrawn in 2021 from trust

The total of the payments that have been made so far is \$195,500. The remaining of the money is reserved in trust for future payment. WARSI and the local community have agreed to do disbursements annually. Since 2019, WARSI conducted the reporting and implementation of the project and at the same time gave education to the village forest staff on how to report and implement the project.

All the financial reports should be reported back to WARSI and WARSI is audited for every expenditure made. Since 2021, a village forest member group proposed a program for 1 year and the budget. This is handled by the local community by practicing what they have learned about reporting. WARSI keeps helping by providing capacity building to make sure the implementation is according to the plan and beneficiaries; however, this is a stepwise process as the community grows accustomed to the process of submitting a plan for use of disbursements and then reporting on the implementation of the plan and finances in so doing. The payment for 2022 is in the process.

Though the transaction of carbon credits is on hold in Indonesia, the project is still running, and it continues running since they have sufficient funds remaining to implement this project. The rest of the payment will be used for future programs and activities. The emissions reductions from this year will not be issued until the government of Indonesia is more clear on its requirements for the VCM.

This is an update in the payment split from PVCs due to the state of the VCM in Indonesia. In the past we have done a 70/30 split. For now this will be different because a portion must be put aside for the government in case it is required as the government has previously alluded to. The structure is such that, from the PVC

payment, WARSI reserves 20% for the contribution to the state in case governmental regulation on the VCM is proposed in the future. Following the 20% being reserved, 60% is reserved for the community and 40% for the project. The PDD will be updated following the verification to reflect this change.

Part H: Ongoing Participation

H1: Recruitment

In 2022 – 2023, we recruited a local facilitator, Famila Juniarti and supported with Whitri, Corry, and Pekik who are in charge of assisting local communities in the implementation of Community PES Bujang Raba. She is also responsible for facilitating the disbursement of Carbon funds in 5 villages in project areas.

H2: Project Potential

No further communities are currently on a waiting list to join the project.

H3: Community participation

The community is actively involved in all stages of the project. Over the 2-year reporting period, the project held more than 30 community meetings. The local community in Bujang Raba take active and effective participation in designing and implementation the project. Some activities are related to protection of village forest, institutional strengthening and improving economic livelihood and they are described as follows:

No	Activity	Location
1	<p>Strengthening village forest council</p> <ol style="list-style-type: none"> 1. Re-structurization the composition of Village forest management group 2. Training to design mid-term management plan and annual management plan of village forest 3. Reflection and monitoring the village forest group's performance 4. Regular meeting with the member of village forest management group 	Sangi Letung, Dusun Buat, Senamat Ulu, Lubuk Beringin and Sungai Mengkuang Kecil
2	<p>Improving capacity building of local community</p> <ol style="list-style-type: none"> 1. Field school for youth group 2. Field school for women group 3. Training forest patrol 4. Training the Citizen journalist 5. Training agriculture technique of coffee 7. Training business model in social forestry 8. Training to use the operating machine for coffee 	Dusun lubuk Beringin, Dusun Senamat ulu and Kampung Sungai Mengkuang Kecil, Dusun Laman Panjang
3	<p>Protected zone demarcation (tagging)</p> <ul style="list-style-type: none"> ● Local community understand the border between utilization zone and protected zone ● Local community understand what do and don't in protected zone ● Make forest demarcation ● Conducting forest patrol regularly ● Survey tree adoption 	Dusun senamat 5 villages in Bujang Raba
4	<p>Designing the management plan of Village forest</p> <ul style="list-style-type: none"> ● The local community engaged actively on formulating village forest management plan ● The management plan is presented with village apparatus and get some input ● Local community implemented the village forest management plan 	5 villages in Bujang Raba

5.	<p>Participation in Webinar :</p> <ul style="list-style-type: none"> ● The representative women group, Misrawati talked about the relation women and forest ● The representative of local community from Lubuk Beringin village talked about the tradition and local knowledge in managing the forest ● The representative of head of village in Bujang Raba, talked about Micro Spatial Plan ● The representative of local community talked about commitment to protect the forest 	Representative of community in Bujang Raba
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Part I: Project Operating Costs

Annex 1: Results

Allocation cost for this reporting period (2022 - 2023)

Expense	Narrative	Amount US\$ (1USD = 13,876 IDR)	Contribution from sale of PVCs	Contribution from other sources
Operational cost Staffing, travelling, meal and accommodation	Local facilitator is hired to facilitate local community. He stays in the village 15-20 days in a month	\$ 14,413	100%	-
Training for NTFP	Training for harvesting in sustainable way. Expenditure for consultant fee, travelling, accommodation, meal and lodging for participant of training	\$1,615 USD	100%	
Forest monitoring and patrol	Technicians and Field workers undertaking monitoring such lodging and meals. Monitoring conducted in 5 villages, 2 times in a year.	\$54,192	100%	
Training and provision	Seeds supply for areca nut	\$4,000	100%	

cost	administrative			
	Building nursery plot for Coffee nursery	\$3,000	100%	
	Seeds distribution	\$1,000	100%	
	Strengthening Village forest institution for financial and reporting	\$3,000	100%	
	training product scanning for rattan	\$4,000	100%	
	Strengthening the Village Forest Management Group (monthly meeting)	\$5,000	100%	
	Monitoring and evaluation under collaboration 5 village forest in Bathin III Ulu	\$4,500	100%	
	Facilitating field visit to Bujang Raba	\$5,000	100%	
Project cost	Certification issuance	\$54,328	100%	
Verification (by Mutu	Verification report	\$9,080	100%	

Agug international)				
Total		\$163,128		

Annex 1: Results

The following table is the current monitoring of forest cover and carbon stocks in the five villages from the start of the project until the end of 2023. These figures will be third-party verified. The conservative estimates mentioned in the PDD (Table E2) will be used to determine the issuance request covering the first period 2013-2023.

No	Location	Area	Forest Cover (ha)		Carbon Stock (CO ₂ eq)		Forest Loss (ha)		Deforestation can be Prevented (ha)	Carbon Emission (CO ₂ eq)		Carbon Emission Reduction (CO ₂ eq)	Percent Emission		Target Emission Reduction (%)
			2013	2023	2013	2023	Without Project	With Project		Without Project	With Project		Without Project	With Project	
1	Buat	736	736	717	968,576	943,704	109.6	18.9	90.7	144,270	24,872	119,398	1.6%	0.4%	75%
2	Laman Panjang	634	634	633	834,344	832,502	94.4	1.4	93.0	124,276	1,842	122,434	1.6%	0.4%	75%
3	Senamat Ulu	1,095	1,095	1,095	1,441,020	1,441,020	163.1	-	163.1	214,641	-	214,641	1.6%	0.4%	75%
4	Sungai Telang	745	745	652	980,420	857,900	111.0	93.1	17.9	146,034	122,520	23,514	1.6%	0.4%	75%
5	Lubuk Beringin	2,126	2,126	2,122	2,797,816	2,792,157	316.7	4.3	312.4	416,736	5,659	411,077	1.6%	0.4%	75%
Grand Total		5,336	5,336	5,218	7,022,176	6,867,283	794.8	117.7	677.1	1,045,957	154,893	891,064	2%	0.4%	75%

**annual accumulation*

Sources:

- 1 **Forest cover; Landsat image analysis 2013 dan 2023)**
- 2 **Carbon stock (1,316 ton CO₂eq per hectares);**
- 3 **Baseline Deforestation, 1.6% per year; KKI Warsi**

From the table above, it can be seen that the ability of each village to reduce deforestation varies greatly, the lowest deforestation is in Senamat Ulu Village with 0 (zero) hectares, while the highest is in Sungai Telang Village reaching 93.1 hectares. The total deforestation rate in Bujang Raba reaches 117.7 hectares, this number is lower than the baseline scenario of 794.8 hectares. Based on the established baseline, the actual deforestation that occurred was able to save 667.1 hectares of forest area or 891,064 tons of CO₂eq.

Annex 2. Annual deforestation each of the village in Bujang Raba

No	Village	Baseline forest cover (ha)	Annual forest lost (ha)										Total forest lost (ha)	Forest can be prevented (ha)
			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
1	Buat	736	-	-	-	-	-	9.8	3.4	5.7	-	-	18.9	717.1
2	Laman Panjang	634	-	-	1.4	-	-	-	-	-	-	-	1.4	632.6
3	Lubuk Beringin	1,095	-	-	-	1.4	-	-	2.8	-	-	-	4.3	1,090.7
4	Senamat Ulu	745	-	-	-	-	-	-	-	-	-	-	-	745.0
5	Sungai Telang	2,126	-	-	-	-	-	86.8	6.3	-	-	-	93.1	2,032.9
Total		5,336	-	-	1.4	1.4	-	96.6	12.6	5.7	-	-	117.7	5,218.3

Annex 2: Biodiversity report from the camera trap

KKI WARSI has set up 10 units camera trap in the forest of Bujang Raba landscape to see the potency of biodiversity and endangered species in the forest. It is found 20 species of animals from 20 families successfully recorded by camera, most of the animals are protected animals in Indonesia and internationally (IUCN CITES list). The largest species found in the form of carnivores which identify that this area is still in a stable ecosystem and becomes a natural habitat for many wildlife. These are some documentation from the camera trap.







Neofelis diardi/Macan dahan



Pardofelis marmorata





Capricornis sumatraensis / Kambing hutan



Muntiacus muntjak / Kijang



Annex 2: Biodiversity report from the patrol forest



Figure 50: finding in the forest



Figure 51: others flora in the forest



Figure 52: footstep of tiger



Figure 53: the good quality of water

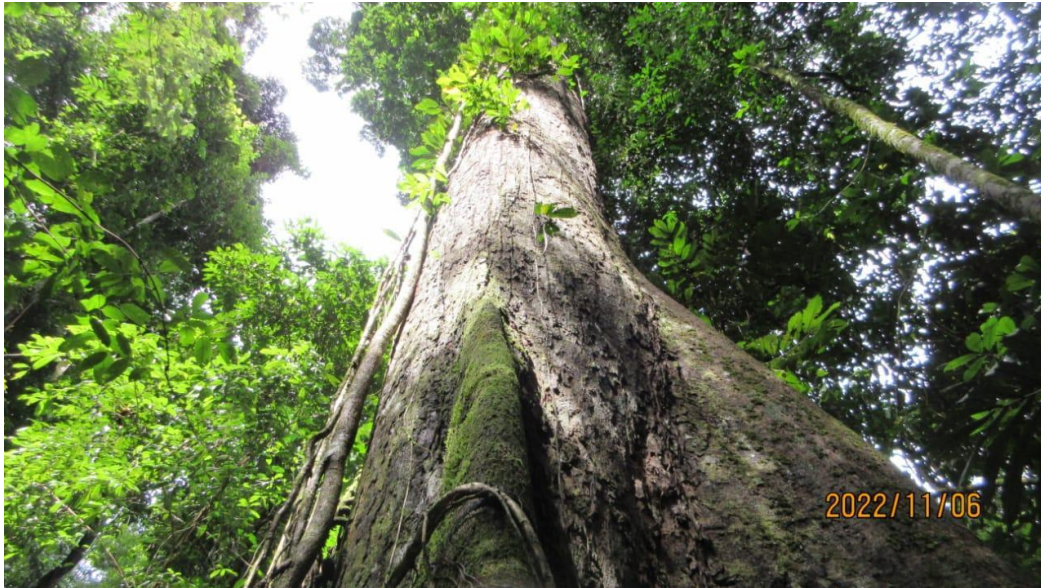


Figure 54: tree in the forest - documentation forest patrol



bibit meranti batu



Figure 55: a good quality of water



Plan Vivo Verification Report

Project Title:

The Bujang Raba Community PES Project

Project Proponent:

KKI Warsi & Bujang Raba Community

Report number : 002/MUTU-PlanVivo/2023
 Version : 1.0
 Date of issuance : 18 July 2024
 Issued by : PT Mutuagung Lestari Tbk (MUTU International)

Name of Verifier(s)	Date of Review
Dwi Kus Pardianto (Lead Verifier)	18 July 2024
Karina Restu Panggalih (Verifier)	

Project Description

Bujang Raba is one of Indonesia's first community REDD projects with mitigation activities that will result in approximately 630,000 tCO₂ of emissions reductions from avoiding deforestation over the next ten years (2014-2023). Under this REDD project, five indigenous Jambi communities will protect their 5,336 ha primary forest and from conversion to non-forest after receiving legally recognized rights by the Government of Indonesia in 2013. Located on the border of Kerinci Seblat National Park, Bujang Raba protected forest provides an important buffer area for development pressures which on some of the planet's most pristine tropical rainforests. With fast conversion of forests throughout Jambi Province at a rate of 2.8 % annually between 1990 and 2020, retain-ing dense forest cover in the upper watershed where Bujang Raba is located will also help stabilize run-off during the torrential rainy season, reducing lowland flooding.

The project will help support 1,259 households who are largely dependent on the natural environment for their livelihood. The families reside in 5 villages that make up a larger traditional (Adat) village. The project will improve the socio-economic conditions of five villages using revenues from carbon-offsets to support a transition to sustainable and productive agroforestry systems based on a mixed supply of rubber, coffee, cinnamon, dragon's blood, and other commodities and spices. In addition, carbon offsets will help develop a micro-hydro and natural gas energy supply system that will reduce the need for fuel wood, coal and other high emission energy sources.

With the population of the communities growing, internal pressures on the forests for timber, and agricultural land also contribute to forest loss and degradation. In the past, three threats to the traditional system have triggered rapid deforestation in the area over the past twenty years. First came the logging concession (HPH) that entered the area in 1996, removing high value timber and opening the once dense forest canopy. Erosion from the steep hillsides filled the once-clear rivers with sediment. The second driver of deforestation has been the conversion of natural forest to oil

palm plantations. This has resulted in a shift in the area’s microclimate to dryer and hotter weather, disrupting conditions for local flora and fauna as these monoculture plots increasingly dominate the landscape. The most recent threat is from the coal mining, which has brought deforestation, water pollution, and biodiversity loss.

Though WARSI has been intermittently active in the area since 2000, we have chosen a project start date of 1 January 2014 to align with the new Plan Vivo program activities. The first phase of the project will be from 2014-2018, with the second phase from 2019-2023.

Document	Outstanding Corrective action	Activity against CAR
N/A	<i>There are no outstanding corrective actions.</i>	N/A

Description of field visits (including list of sites visited and individuals/groups interviewed)

List of documents reviewed

1. Decree of the Minister of Forestry regarding the establishment of community forests in the Lubuk Beringin Village
2. Decree of the Minister of Forestry regarding the establishment of community forests in the Sungai Letung Village
3. Decree of the Minister of Forestry regarding the establishment of community forests in the Senamat Ulu Village
4. Decree of the Minister of Forestry regarding the establishment of community forests in the Sungai Mengkuang Village
5. Decree of the Minister of Forestry regarding the establishment of community forests in the Sungai Telang Village
6. Long-term Plan of Village forest
7. Map of Project Area
8. Map of Leakage Belt in Project Area
9. 2014-2015 Plan Vivo Annual Report

10. 2016-2017 Plan Vivo Annual Report
11. 2018-2019 Plan Vivo Annual Report with 2020 update
12. 2020-2021 Plan Vivo Annual Report
13. Bujang Raba Validation Report 2015
14. PES Agreement Document
15. Report on the Results of Implementing Animal Inventory Activities with Camera Traps in the Forest of Lubuk Beringin Village (October 2018 – January 2019)
16. Report of Animal Monitoring in The Forest of Senamat Ulu Village, Bujang Raba Landscape, Muaro Bungo, Jambi (August 2019 - January 2020)
17. Report of Animal and Vegetation Monitoring in the Sungai Telang Village Forest, April 2019

List of Interviewee

Date	Name	Position & Department	Topics
06/06/2023	Emmy Primadona	Project Coordinator	<ul style="list-style-type: none"> • Project management • FPIC • Project plan • Monitoring • PES agreement • Payment and Benefit sharing • Training
	Fredi Yusuf		
06/06/2023	Famila Juniarti	Facilitator for community members who join the project	<ul style="list-style-type: none"> • FPIC • PES Agreement • Monitoring • Payment and Benefit sharing
06/06/2023	Syapri	Head of Lubuk Beringin Village	<ul style="list-style-type: none"> • Project activities • FPIC • PES Agreement • Payment and Benefit Sharing • Monitoring activities • Training received to support the project • Environmental impacts due to project activities
	Jupri	Member of Lubuk Beringin Community Forest Institution	
	Baksa		
	Joko Muryanto		
	Junaidi		
	Jupni		
	Khoirunas		
	Fahrudin		

Date	Name	Position & Department	Topics
	Ali Umar		<ul style="list-style-type: none"> Economic impact due to the project Community commitment to protect the forests
	M. Kasdi		
	Hidayat		
	Andi Andriadi		
07/06/2023	Tarmizi	Head of Senamat Ulu Village	<ul style="list-style-type: none"> Project activities FPIC PES Agreement Payment and Benefit Sharing Monitoring activities Training received to support the project Environmental impacts due to project activities Economic impact due to the project Community commitment to protect the forests
	Hapali	Member of Senamat Ulu Community Forest Institution	
	H. Romadon		
	Dedi		
	M. Habibi		
	Bakian		
	Yanti Aprida		
	Nuraini		
	Nariyan		
	Mulia Iftitah		
08/06/2023	M. Shofwan	Head of Sungai Telang Community Forest Institution	<ul style="list-style-type: none"> Project activities FPIC PES Agreement Payment and Benefit Sharing Monitoring activities Training received to support the project Environmental impacts due to project activities Economic impact due to the project Community commitment to protect the forests
	A. Bakir	Member of Sungai Telang Community Forest Institution	
	Sukiman Umar		
	Abu Barek		
	M. Yahya		
	Ishak		
	Ahmad Yuzar		
	Ahmad Damiri		
	Salman		
	Al Pirkom		
	Zulfauzi		
	Anasri		
	Nawawi		
	Ahmadi		

Date	Name	Position & Department	Topics
	Edison		
	Adnin		
	Saripudin		
	Diki Satria		
	Erfan		

Table 1. Summary of major and minor Corrective Actions (Insert CAR Text)

Theme	Major CARs	Minor CARs	Observations	Status
Project's Eligibility	-	There was ambiguity in the boundaries installed in the field. So there is concern that there will be unexpected activities in their work area in Sungai Telang Village.	-	Completed
Ecosystem Benefits	-	-	Due to forest fire in 2019 in Sungai Telang, it is necessary to enrich plants with MPTS (multipurpose tree species), so that get ecological and economic balance.	Completed
Project Coordination and Management	-	-	-	Completed
Participatory design	-	-	-	Completed

Theme	Major CARs	Minor CARs	Observations	Status
Quantifying and Monitoring Ecosystem Services	-	-	-	Completed
Risk Management	-	-	-	Completed
Livelihoods Impacts	-	-	-	Completed
PES Agreement	-	-	-	Completed

Table 2 - Report Conformance (Delete Yes/No as appropriate)

Theme	Conformance of Draft Report	Conformance of Final Report
Project's Eligibility	No	Yes
Ecosystem Benefits	Yes	Yes
Project Coordination and Management	Yes	Yes
Participatory design	Yes	Yes
Quantifying and Monitoring Ecosystem Services	Yes	Yes
Risk Management	Yes	Yes
Livelihoods impacts	Yes	Yes
PES Agreement	Yes	Yes

PROJECT'S ELIGIBILITY	
Requirement: Project directly engage and benefit community groups	
Verification Question: 1 and 2	
<p>1.1 Project interventions are still taking on land where smallholders and/or community groups have clear land tenure (1.1)</p> <p>1.2 Land that is not owned by or subject to use rights has included in the project area because (1.2):</p> <ul style="list-style-type: none"> • It represents less than a third of the project areas at all times • No part of the area was acquired by a third party from smallholders or community groups for the purpose of inclusion in the project • Its inclusion will have clear benefits to the project by creating landscape level ecosystem benefits such as biodiversity corridors. • There is an executed agreement between owners/mangers of such land and participants regarding the management of the area consistent with these requirements 	
A. Findings (describe)	<p>The traditional Indigenous communities involved in this project have historically claimed and managed the area as their ancestral domain, the Ministry of Forest (MoF) has also labeled it as Protected Forest under state jurisdiction. Since the MoF has not had the capacity to effectively manage this remote forest region, the area was exposed to drivers of deforestation and subject to leasing for commercial purposes. In 2002, with the assistance of WARSI, the communities requested that their community management rights be recognized by the MoF. All the villages was granted as village forest (hutan desa) by the MoF through the following decision letter :</p> <ol style="list-style-type: none"> 1. Letter of Decision by the Ministry of Forestry No. SK. 362/Menhut-II/2011 – Approving the establishment of a village forest (Hutan Desa) in Sungai Mengkuang Village, dated 7 July 2011 2. Letter of Decision by the Ministry of Forestry No. SK. 543/Menhut-II/2011 – Approving the establishment of a village forest (Hutan Desa) in Sangi - Letung Village, dated 26 September 2011 3. Letter of Decision by the Ministry of Forestry No. SK.360/Menhut-II/2011 – Approving the establishment of a village forest (Hutan Desa) in Senamat Ulu Village, dated 7 July 2011. 4. Letter of Decision by the Ministry of Forestry No. SK.301/Menhut-II/2012 – Approving the establishment of a village forest (Hutan Desa) in Sungai Telang Village, dated 15 June 2012. 5. Letter of Decision by the Ministry of Forestry No. SK.109/Menhut-II/2009 – Approving the establishment of a village forest (Hutan Desa) in Lubuk Beringin Village, dated 2009. <p>Village Forest status eventually granted 35-year renewable management rights to all 5 hamlets project, recognizing their claim to</p>

their traditional forest land. the local government takes on a hands-off approach, leaving the community to forge its own path both logistically and financially. The boundaries of each village's work area are clearly depicted on the map which is an integral part of the ministerial decision that has been given. Almost all project members understand and know the boundaries of their respective work areas. Except for Sungai Telang Village. The results of field observations with members revealed that there was ambiguity in the boundaries installed in the field. So there is concern that there will be unexpected activities in their work area (**Minor CAR**)

Bujang Raba is located in a nationally designated protection forest in the western central Sumatra in close proximity to Bukit Barisan Mountainous and Kerinci Seblat National Park. The overall goal of the Bujang Raba PES project is to achieve sustainable village forest managed by community in five villages, with the total 7.291 ha. Each of the communities manages Village Forest scheme, which vary from 1,000 – 2,356 ha. The 5 village forests include the following:

No.	Village Forest	Total Area (Ha)
1.	Lubuk Beringin	2.356
2.	Senamat Ulu	1.661
3.	Sungai Mengkuang	1.051
4.	Sangi Letung	1.223
5.	Sungai Telang	1.000
Total		7.291

WARSI has been assisting the Bujang Raba communities for over a decade to improve local livelihoods and natural resource management. The communities have expressed their concern over climate change and are fully aware of the need to conserve and protect their forests. In the face of the growing threats to their forests, they have expressed desire to initiate mitigation activities and intensify protection activities. In 2014, WARSI facilitated a series of meetings in the 5 participating hamlets to discuss the goals, structure, and process for REDD+ project development under the Plan Vivo standard. WARSI is currently working with the communities to develop a long-term conservation strategy under the Hutan Desa scheme that will help ensure forest protection.

FPIC documentation is proven only through a PES Agreement signed by community representatives before the project begins. In addition, the community was involved in making project design maps and also designing village forest annual plan, which is approved by the Forest Management Unit of Bungo District. The design of forest village

	<p>management plan involved related stakeholders and youth in the participatory manner. The document is mandatory for village forest councils (LPHD) as their responsibility to manage the forest.. There is a draft statement of initial community interest before the PES Agreement in the FPIC process at the beginning. Based on the completed interview summary (record documents), the communities have been participating freely and voluntarily in the preparation and implementation of Plan Vivo. As of the 2023 verification activities, it is known that the community's commitment to the project is still maintained. No community group resigned from the project.</p> <p>Based on the interview with the community, no disputes were occurring in the project sites. Every individual member has been well informed at the beginning of the project and during project activities. Project activities are going with community interest needs and so that no disputes were found. In case if any farmer made dispute through lack of awareness or any other then there is a village forest management councils (LPHD) which will be the institution for resolving disputes. All settlements will be resolved through deliberation to reach an agreement. This mechanism was known and approved by members the first time before the project started through each LPHD budget meeting. Apart from that, if there is interference between LPHDs, a communication channel has been provided through a large deliberation which will be attended by all LPHDs.</p> <p>Restoration projects also have clear benefits for the wider community living around the project site. The most important factors include reduction of erosion and gully erosion, conservation of soil. For example, The community experiences ecological benefits such as no flooding during the rainy season and water shortages during the dry season. This project can also guarantee the availability of water to drive micro hydro power plants.</p>		
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
C. Corrective Action (describe)	There was ambiguity in the boundaries installed in the field. So, there is concern that there will be unexpected activities in their work area in Sungai Telang Village.		
D. KKI Warsi's Response	The boundaries were implemented by giving a sign or marking. So, any other persons from communities or out of community can notice the area was protected.		
E. Status	Closed		

ECOSYSTEM BENEFITS

Requirement: Project generates ecosystem service benefits and maintains or enhances biodiversity.

Verification Questions: 1, 3 and 5

- 2.1 Project interventions are maintaining or enhancing biodiversity (2.2)
- 2.2 Project interventions have not led to any negative environmental impacts (2.3)
- 2.3 Any trees being planted to generate ecosystem services are native or naturalised species and are not invasive (2.4)

<p>A. Findings (describe)</p>	<p>In the PDD it is explained that Environmental and biodiversity monitoring focus on tracking forest cover indicators. Ground-based patrols will monitor indicators like illegal encroachment area, forest fire, and some mitigation action. The biodiversity tracked through the monitoring through installing camera traps.</p> <p>Based on the data of land use change monitoring it is known that In the period 2020 -2021, 18,3 ha illegal encroachment occurred for new farming. In 2020 encroachment for new farming was 12,6 ha (In Sangi–Letung 3.4 ha, in Lubuk Beringin 2.8 ha, and in Sungai Telang 6.3 ha). In 2021 encroachment for new farming was 5.7 ha in Sangi-Letung. On deforestation land due to illegal encroachment, agroforestry is developed so that it can restore ecology and have an economic impact. The village forest institution keeps doing socialization and awareness raising to local communities about forest protection.</p> <p>While the large deforestation occurred in 2019, due to extreme hot weather (El Nino) which caused forest fires, which occurred not only in the project area, but in many other areas of Indonesia. In the area ex-forest fire (2019) located in Sungai Telang village, from the analysis satellite imaginary, the color is light green, it means the area has been covered with shrub and other plants as natural regeneration. Because the location is hilly and the area is quite large, currently only natural restoration is carried out. This was also confirmed based on field verification results that the area was covered with shrubs and there were several pioneer plants such as <i>Falcataria moluccana</i> in several spots ex-burnt areas. This kind of restoration or natural succession is good enough for ecology, but less economically impactful. To get ecological and economic balance, in the future it is necessary to enrich plants with MPTS (multipurpose tree species), so that there is economic value that can be taken, both in the form of fruit, leaves and latex.</p> <p>Regarding fauna diversity, based on the results of the latest monitoring via camera traps, it is known that 120 animal species from 20 families were successfully recorded on camera, most of these animals are protected animals in Indonesia and internationally (IUCN CITES list) such as <i>Neofelis diardi</i>, <i>Tapirus indicus</i>, <i>Panthera tigris Sumatrae</i>, and etc. The largest species found</p>
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	<p>is in the form of carnivores which identify that this area is still in a stable ecosystem and becomes a natural habitat for many wildlife.</p> <p>The project intervention by Bujang Raba has clear benefits for the wider community living around the exclosyres project. The most important factors include reduction of erosion and gully erosion, conservation of soil. For example, The community experiences ecological benefits such as no flooding during the rainy season and water shortages during the dry season. This project can also guarantee the availability of water to drive micro hydro power plants.</p> <p>The main intervention project developed by Bujang Raba is through avoided deforestation activities to slow the loss of intact primary forest. The forest being guarded is a forest landscape that has been determined by the government through an MoF covering an area of 5,336 Ha. To support these activities, the Bujang Raba Project is also developing other interventions through Improving Livelihoods activities – through village forest business plans and livelihood generating capacity, and strengthening village forest institutions. To improve local household economies as well as to reduce the pressure on forests by people, KKI-WARSI is encouraging Bujang Raba communities to develop multi-tiered agriculture without having to convert forestland. Agroforestry activities are carried out in designated utilization zones, where each village forest consists of a protected zone (core zone) which must not be disturbed and a utilization zone which can be utilized by the community for the agroforestry system. Rubber, cacao, coffee, cardamon, betel nut (areca), dragon blood (rattan-esque, vine) are all provided and planted in the utilization zone, garden, or farming areas to provide multi-layer income to support the entire community. The seeds for areca have been distributed from the nursery. Local community has developed seeds nursery for 5,000 areca nuts and 10,000 of coffee to support the agroforestry system. With this system, project activities will not damage/ change the ecosystem of natural forest in the Bujang Raba Landscape.</p>		
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
C. Corrective Action (describe)	Due to forest fire in 2019 in Sungai Telang, it is necessary to enrich plants with MPTS (multipurpose tree species), so that get ecological and economic balance.		
D. KKI Warsi's Response	Will take the consideration and having discussion with representative of five villages.		
E. Status	Closed		

PROJECT COORDINATION AND MANAGEMENT

Requirement: Project is managed with transparency and accountability, engagement of relevant stakeholders and in compliance with the law of the Host Country.

Verification Questions: 1, 2 and 6

3.1 The project coordinator still has the capacity to support participants in the design of the project interventions, select appropriate participants for inclusion in the project, and develop effective participatory relationships including providing on-going support to sustain the project **(3.4)**

- 3.2 The project coordinator still has the legal and administrative capacity to enter into PES Agreements with participants and to manage the disbursement of payments for ecosystem services **(3.5)**
- 3.3 A transparent mechanism and procedures for the receipt, holding and disbursement of PES funds is applied, with funds intended for PES earmarked and managed through an account established for this sole purpose, separate to the project coordinator’s operational finances. **(3.9)**
- 3.4 The project coordinator has accurately described the progress, achievements and problems encountered by the project in the Annual Reports. The Annual Reports transparently report sales figures and demonstrate resource allocation in the interest of target groups **(3.10; 3.11)**

A. Findings (describe)

Warsi is a non-government organisation established in 27 December 1991 by a number of inter-disciplinary and inter-genre activists that share the same views in responding to facts in natural resource management in that period. WARSI has extensive experience in community development project management as well as with the project communities.

The NGO WARSI act as Project Developer and has appointed Emmy Primadona as Project Manager to act under the direction of the WARSI Executive Director. The WARSI project team includes: the project manager, business manager, project accountant, forest activity coordinator, socio-economic activity coordinator, and monitoring and reporting specialist. WARSI responsible for assisting the Village Forest Forum with communications and technical support including interactions with Plan Vivo, Markit Registry, participating brokers and buyers. WARSI will also provide assistance with monitoring and the preparation of the annual report.

The WARSI team work with the Village Forest Forum and each Village Forest Council to develop a record keeping system. The system documented the following items:

- Financial income and expenditures
- Minutes of all Village Forest Council Meetings
- Reports from the Forest Patrols
- Environmental and Socio-Economic monitoring indicators

In addition to collecting the data above, the joint WARSI/ Village Forest Council team responsible for preparing the annual report and submitting it to Plan Vivo.

According to the interview result and project document review, there have been capacity building through the Trainings delivered to the communities :

- 1st training on how to develop coffee nurseries
- 2nd training on how to harvest rattan in sustainable way
- 3rd training on how to design village regulation

	<ul style="list-style-type: none"> ➤ 4th training on forest patrol ➤ Training how to Improve capacity building for village forest treasurer and village-own enterprises how to make book keeping and financial report ➤ Improve capacity building for village forest treasurer and village-own enterprises how to make narrative report ➤ Filling and documenting archives and data analysis. <p>The bank account was opened with the name of Bujang Raba project and managed by the project coordinator.</p> <p>Payments are dependent on the successful implementation of the annual work plan and the delivery of an acceptable annual report to Plan Vivo by the management team. Benefits will be allocated according to the annual budget. If additional resources are available, the Village Forest Councils and the Management Team will discuss distribution to encourage livelihood activities to special community groups (women’s micro finance- Koperasi Dahlia, Farmer’s Clubs, student groups, etc.). The annual work plan and budget will be developed and reviewed by the Village Forest Councils and project management team (WARSI) to ensure equity and transparency by all stakeholders. This was also confirmed based on the results of interviews with LPHD members in the three villages during verification activities.</p> <p>The remaining of the money is reserved in trust for future payment. WARSI and the local community have agreed to do disbursements annually. All the financial reports should be reported back to WARSI and WARSI is audited for every expenditure made.</p>		
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
C. Corrective Action (describe)	The verification team did not ask corrective action to project coordinator since the implementation of the project conforms with the project design documents and annual report.		
D. KKI Warsi’s Response	N/A		
E. Status	CLOSED		

PARTICIPATORY DESIGN AND DEVELOPMENT OF PLAN VIVO

Requirement: the project has demonstrated community ownership: communities participate meaningfully through the design and implementation of plan vivos that address local needs and priorities.

Verification Questions: 1, 2 and 6

- 4.1 A voluntary and participatory planning that address local needs and inform the development of technical specification is taking place (4.1; 4.6; 7.1.). Barriers to participation are being identified and measures taken to encourage participation (4.3)
- 4.2 Smallholders or communities are not being excluded from participation in the project on the basis of gender, age, income or social status, ethnicity or religion, or any other discriminatory basis (4.2)
- 4.3 The project is not undermining the livelihood needs and priorities or reduce the food security of the participants (4.7; 7.1; 7.5)
- 4.4 There exist a system for accurately recording and verifying location, boundary and size of each plan vivo (4.8). Participants have access to their *plan vivos* in an appropriate language and format (4.9)
- 4.5 Participants are being provided with a forum to periodically discuss the design and running of the project with other participants and raise any issuance or grievances with the project coordinator (4.12). A robust grievance redressal system is in place (4.14)

A. Findings (describe)

The planning process to identify local needs was voluntary and participatory by all member of community in each project site. The verification team interviewed the local project coordinator and community members together with reviewed the documented evidence to determine if the project used a community-led approach to planning.

The community members from five villages were invited to give their general impressions of the project, including its benefits to the community, and to explain how the community viewed the project and how to identify the local community needs. The community leaders, community members, the community beneficiary and local government staff were asked to explain their roles and responsibilities with respect to the project, specifically, in problem prioritizing, in identifying the needs of the community, in preparation of plans and in organizing for mobilization were determined by preparation consultation meetings and discussions.

All members of the community are participating voluntarily and actively in any way project activities. Based on interviews with the community from 5 villages and responsible stakeholders in the project area, active participation in all activities of the project has been implemented in identification and prioritizing for the annual plan.

The verification team found no evidence that communities are being excluded from participating in the project as a result of discrimination. Additionally, the project has put specific measures in place to ensure that youth and women are included in the project and receive benefits from the project. Moreover, the project is not undermining the livelihood needs and priorities of the five villages.

	<p>The system in place for accurately recording the size and location of each plan vivo and that the communities have access to their plan vivos in an appropriate language and picture for project maps.</p> <p>Since the annual reports are publicly accessible, the verification team has reviewed them together with supporting evidence provided by the project coordinator including the details of meetings that were held by the project coordinator with community members during the monitoring period. There is no evidence that the interviewees have not been provided a forum to discuss the running of the project and grievance mechanisms following with PES agreement.</p>		
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
C. Corrective Action (describe)	The verification team did not ask corrective action to project coordinator since the implementation of the project conforms with the project design documents and annual report.		
D. KKI Warsi's Response	N/A		
E. Status	Closed		

QUANTIFYING AND MONITORING ECOSYSTEM SERVICES

Requirement: project generates real and additional ecosystem service benefits that are demonstrated with credible quantification and monitoring

Verification Questions: 2, 3 and 4

- 5.1 Sources of data used to quantify ecosystem services, including all assumptions and default factors, have been specified and updated when possible, with a justification why they are appropriate **(5.1; 5.2)**
- 5.2 The project coordinator has been conducting ground-truthing activities in order to collect real data and field measurements from the project sites that have been or will be used to update the project's PDD and technical specifications, including the quantification of climate benefits **(5.3)**
- 5.3 A clear and consistent Standard Operating Procedure (SOP), or equivalent, for remote sensing analysis has been elaborated by the project coordinator.
- 5.4 The results of interviews and field-site analysis are not in stark conflict with the results of Activity-Based Monitoring and there is a high level of correlation between the two monitoring methods. Reasons for any discrepancy have been accurately justified.
- 5.5 Ecosystem services forming the basis of the Plan Vivo project are still additional **(5.4)**.
- 5.6 To avoid double counting of ecosystem services, the project interventions are not being used for any other project or initiative **(5.14)**
- 5.7 A monitoring plan has been correctly implemented and a system for checking its robustness is in place, where **(5.9; 7.2.; 7.3)**:
 - The Activity-Based Monitoring indicators and performance targets directly or indirectly linked to the delivery of ecosystem services. ABM provides sufficient evidence that the project is on track to deliver the expected impacts and to reduce the drivers of deforestation.
 - Corrective actions and contingency plans are described when performance targets have not been met

- The validity and assumptions of the technical specifications have been correctly tested
- Communities have been actively participating in monitoring activities
- Monitoring has been regularly shared and discussed it with the participants

A. Findings (describe)

The project coordinator is used several parameters monitoring as a source of data. The source of data to quantify ecosystem services are from restoration and tree planting activities.

The methodology is tailed with updated PDD. The project management used a methodology recommended by Winrock International for defining number of sampling plots and accuracy rate. While for field measurement, SNI 7724:2011 (SNI: National Standard), such as the measurement of each plot was 20m x 125m (0.25 ha). Community members took responsibility for field measurements while the KKI WARSI team provided training, supervision and data analysis.

The project management has decided to shift to a system of average ERs per year across the project period to avoid overclaimed. As a result, the buffer credits have been slightly amended in this reporting period as there was a slight overissuance of buffer credits in the last report, moving from year-by-year analysis to an average system.

The project has been continuously conducting ground-truthing activities to ensure that ongoing monitoring requirements are conducted as required in the project's monitoring plan. Based on the desk review and site visit, the verification team confirmed that the monitoring was conducted in line with the requirements of the project design document. The procedures for monitoring are documented and well-understood by the project coordinator and members of the community.

The verification team is reasonably assured that the results of the monitoring activities based on desk review and site visit are correctly true following monitoring plan in the project design document.

To ensure that the project in Bujang Raba is not registered under other carbon programs and to avoid double counting, the verification team do the due diligence through desk review. The results is the project is only registered under the Plan Vivo program.

The results of monitoring from to avoided deforestation in the project area is fully achieved. The project coordinator is using spreadsheet file to compile all the monitoring data. They make a formulation in the file to calculate the carbon stock and the emission reduction to become carbon unit or Plan Vivo Certificate (PVC). Through desk review, the verification team conducting the recalculation. The details of number of PVCs as follow:

Vintage	tCO2 achieved	Buffer (20%)	No. PVCs requested
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	2014	47,388	9,478	5.000
	2015	47,388	9,478	20.000
	2016	47,388	9,478	37.910
	2015	47,388	9,478	37.910
	2018	47,388	9,478	37.910
	2019	47,388	9,478	2.090
	2020	47,388	9,478	-
	2021	47,388	9,478	-
	<p>Due to changes of regulation for voluntary carbon mechanisms, the project management are not issued any PVCs in 2020 and 2021.</p> <p>To ensure all the results of carbon stock and emission reduction calculation fulfill the principle of accurate and consistent, the project coordinator should be considered the consistency of decimal number in the spreadsheet file to minimize the risk of misstatement. Moreover, to ensure all the monitoring data are accurate. The project coordinator should consider all the paper-based raw data are back-up digitally and available following the duration of project.</p>			
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
C. Corrective Action (describe)	The verification team did not ask for corrective action to project coordinator since the implementation of the project conforms with the project design documents and annual report.			
D. KKI Warsi's Response	N/A			
E. Status	Closed			

RISK MANAGEMENT

Requirement: The project manages risks effectively throughout its design and implementation.

Verification Questions: 2 and 4

6.1 Where leakage is likely to be significant, i.e. likely to reduce climate services by more than 5%, an approved approach has been used to monitor leakage and subtract actual leakage from climate services claimed, or as a minimum, a conservative estimation of likely leakage has been made and subsequently deducted from the climate services claimed (**6.1; 6.2**)

<p>6.2 The level of risk buffer that has determined using an approved approach is adequate and is a minimum of 10% of climate services expected (6.3)</p> <p>6.3 Does the project maintain a buffer account and, if yes, is the cumulative total of credits deposited in the account equal to the total reported in the latest annual report? (6.3)</p>			
<p>A. Findings (describe)</p>	<p>Risks to the delivery of ecosystem services and sustainability area identified and appropriate mitigation measures are described in Part H of project design document. The risk assessment was conducted and evaluated during validation in July 2016.</p> <p>The project developers used a VCS method for estimating the risk buffer. Based on these calculations, the risk buffer was set at 20%, with a 14% internal risk factor, a 1% external risk factor, with no natural risk factor.</p> <p>Based on interview with project coordinator, they considering the result of risk analysis and leakage assessment which has indication relatively low-level risk and leakage. Therefore, the project developers setting the buffer at 20%. Given the strong consensus among community members to protect the primary forest and develop the secondary forest for sustainable agroforestry and considering the relative abundance of natural resources in the area this level of reserve should be adequate for the proposed project</p>		
<p>B. Conformance</p>	<p>Yes <input checked="" type="checkbox"/></p>	<p>No <input type="checkbox"/></p>	<p>N/A <input type="checkbox"/></p>
<p>C. Corrective Action (describe)</p>	<p>The verification team did not ask for corrective action to project coordinator since the implementation of the project conforms with the project design documents and annual report.</p>		
<p>D. KKI Warsi's Response</p>	<p>N/A</p>		
<p>E. Status</p>	<p>Closed</p>		

<p>PES AGREEMENT AND BENEFIT SHARING</p>
<p>Requirement: project shares benefits equitably and transact ecosystem services benefits through clear PES Agreements with performance-based incentives.</p>
<p>Verification Questions: 1, 2 and 6</p>
<p>7.1. Procedures for entering into a PES Agreement with participants are being applied correctly (8.2)</p> <p>7.2. Participants are entering into PES agreement voluntarily and according to the principle of free, prior, informed consent, in an appropriate language and format (8.3)</p> <p>7.3. PES Agreements are not removing, diminishing or threatening participant's land tenure (8.4)</p>

7.4. A fair and equitable benefit-sharing mechanism is in place and has been agreed with the participation of communities involved, identifying how PES funding will be distributed among participants **(8.8; 8.9; 8.10)**

7.5. The project has committed to deliver at least 60% on average of the proceeds of the sales of Plan Vivo Certificates. Where less than 60% has been delivered, the project has justified why this was not possible **(8.12)**

**A. Findings
(describe)**

The verification team found participants entered into PES agreements voluntarily according to the principle of free, prior and informed consent (FPIC), where sufficient information, in an appropriate format and language, was available to potential participants to enable them to make informed decisions about whether or not to enter into a PES Agreement. In the PES agreements did not remove, diminish or threaten community members' land tenure.

Regarding the land tenure, the traditional communities who involved in this project have historically claimed and managed the area as their ancestral domain, the Ministry of Forest (MoF) has also labelled it as Protected Forest under state jurisdiction. The verifier team was received and reviewed the documents as follow:

1. Letter of Decision No. SK.362/Menhut-II/2011 dated 7 July 2011 by the Indonesian Ministry of Forestry - approving the establishment of a Village Forest (Hutan Desa) in Sungai Mengkuang Village with area $\pm 1,051$ ha
2. Letter of Decision No. SK.543/Menhut-II/2011 dated 26 September 2011 by the Indonesian Ministry of Forestry Approving the establishment of a Village Forest (Hutan Desa) in Sangi – Letung Village with area $\pm 1,224$ ha
3. Letter of Decision No. SK.360/Menhut-II/2011 dated 7 July 2011 by the Indonesian Ministry of Forestry Approving the establishment of a Village Forest (Hutan Desa) in Senamat Ulu Village with area $\pm 1,661$ ha
4. Letter of Decision No. SK.301/Menhut-II/2012 dated 15 June 2012 by the Indonesian Ministry of Forestry Approving the establishment of a Village Forest (Hutan Desa) in Desa Sungai Telang with area $\pm 1,000$ ha
5. Letter of Decision No. SK.109/Menhut-II/2009 by the Indonesian Ministry of Forestry Approving the establishment of a Village Forest (Hutan Desa) in Desa Lubuk Beringin with area $\pm 2,356$ ha

There to be a fair and equitable benefit-sharing mechanism is in place and has been agreed with the community members involved, identifying how PES funding will be distributed among the community member.

The bank account was opened under project management team KKI-WARSI and managed by theme. Payments are dependent on the successful implementation of the annual work plan and the delivery of an acceptable annual report to Plan Vivo by the management team. Benefits will be allocated according to the annual budget. If additional

	<p>resources are available, the Village Forest Councils and the Management Team will discuss distribution to encourage livelihood activities to special community groups (women’s micro finance-Koperasi Dahlia, Farmer’s Clubs, student groups, etc.). Based on the reviewed and interview with representative of 5 villages, the annual report and realization of annual work plan was available and it confirmed that allocation of 60% of sales revenue to the project participants.</p> <p>The PES agreement is in place and and represent the period of project. Moreover, it was confirmed to meet all the requirements of the Plan Vivo Standard during the project’s verification. Benefits are delivered to participants through payments that are distributed and reinvested by the KKI-WARSI and Hutan Desa.</p>		
B. Conformance	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
C. Corrective Action (describe)	The verification team did not ask corrective action to project coordinator since the implementation of the project conforms with the project design documents and annual report.		
D. KKI Warsi’s Response	N/A		
E. Status	Closed		