



KONSERVASI  
BERSAMA  
MASYARAKAT

# ANNUAL REPORT 2020-2021



1. SUMMARY	1
PART A Key Events, Success and Challenges	2
A1. Key Event	2
2. Key success and Challenge	12
A3. Project developments	13
Part B: Project activities	13
B1. Project activities generating Plan Vivo Certificates	13
Part C: Plan Vivo Certificate issuance submission	13
C1. Contractual statement	13
C2. Issuance request	13
C3 Data to support issuance request	14
Part D: Sales of Plan Vivo Certificates	15
D1: Sales of Plan Vivo Certificates	15
D2 : UNSOLD STOCK AVAILABLE FOR SALE	15
E1: Monitoring Results	15
E2: Maintaining commitments	18
E3: Additional monitoring	18
Part F: Impacts	18
Part G: Payments for Ecosystem Services	18
G1: Summary of PES by year	18
Part H: Ongoing Participation	18
H1: Recruitment	18
H2: Project Potential	18
H3: Community participation	18
Part I: Project operating costs	18
I1: Allocation of costs	19
Annex 1: Results	19

## Summary of Project

Project Overview	
Reporting period	2 years 01/01/2020-31/12/2020 01/01/2021-31/12/2021
Geographical Area	Bujang Raba Landscape, Bungo District, Jambi Province
Technical specifications in use	Avoided deforestation (REDD+)

PROJECT INDICATORS	HISTORICAL	ADDED/ISSUED THIS PERIOD (2020&2021)	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 households*	-	934 households*
Area under management (ha) where PES agreements are in place	5,339 ha	-	5,339ha
Total PES payments made to participants (USD)	\$199,189.4 (2018 & 2019)	\$163,656 (Table G1 for more detail)	\$362,845.4
Total sum held in trust for future PES payments (USD)	n/a	n/a	n/a
Allocation to Plan Vivo buffer to date	56,869	18,956 **	75,824
<b>Unsold Stock at Time of Submission: 0</b>			
Saleable Emissions Reductions Achieved (tCO <sub>2</sub> )	227,460	75,820**	303,280
Plan Vivo Certificates (PVCs) requested for issuance this reporting period	15,000 from 2015		
<b>tCO<sub>2</sub> available for future issuances</b>			
2014	32,910		
2015 (issuing 15,000 this 2020-2021 reporting period)	17,910		
2016, 2017, 2018	0****		
2019	35,820		
2020	37,910		
2021	37,910		
<b>Total</b>	<b>162,460</b>		

\*934 households, 3,652 individuals

\*\*These emissions reductions achieved are reserved for future issuance as project is not currently issuing due to the current uncertainty of the status of the VCM in Indonesia

\*\*\*in 2014, 2015, and 2019, a portion of emissions reductions were issued and the rest remain

\*\*\*\*All available credits were issued in 2018

## Part A: Key Events, Successes, and Challenges

### A1. Key Event

From 2020 to 2021 and even at the time of writing this, the global COVID-19 pandemic is being felt by Bujang Raba the community in the health, economic, and agricultural sectors. Mass restrictions on human activities to reduce the spread of the virus have greatly slowed the wheels of the economy, reducing the level of community data collection and some activities. It has changed the culture of the community by pushing people to share time and knowledge through the transfer of technology. In this project period, we focused on social welfare, addressing COVID-19, and distributing foodstuffs to maintain living standards with less focus on forest management programs as would have been done usually.

Regarding project activities, the COVID-19 pandemic caused several agenda activities that were actually carried out by involving crowds, the number of participants had to be limited and follow strict health protocols. Some activities involving crowds from

various regions had to be carried out online and some activities were halted such as the culinary products outlined in the previous AR. But over time, and the ability to strategize and adjust to the situation, project activities were implemented and will continue.

The activities that did take place focused on community livelihoods and business development, regional governance through the affirmation of village forest boundaries and forest patrols, as well as capacity building of local institutions, such as alternative economic excavation, administrative and financial training, and coffee cultivation training. In addition, the project promoted a sustainable forest management model through Community REDD+, by encouraging community leaders to speak at events involving parties at the National level.

In this period, 5 village communities in Bujang Raba benefited from the project. The support funding for community PES Bujang Raba project has been distributed to 5 main activity components, namely 1) increasing the institutional capacity of village forest management groups, 2) improving the economy and livelihoods, 3) building infrastructure for village public facilities, 4) Forest governance through the affirmation of village forest boundaries and forest patrols, and 5) as well as educational and social assistance. Some important events are described as follows:

1. Socialization of prevention and breaking of the chain of spread of the Covid19 Virus. The local community began to understand the impact of the Covid 19 pandemic and learn steps to help prevent and halt the spread of the virus
2. Strengthening commitments to reduce carbon emissions (Carbon Returns MoU in 2021 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.
3. Forest patrols and the affirmation of the boundaries of the Village Forest protected zone. The forest patrol is a routine activity carried out for monitoring and securing forests. To improve forest protection, it is necessary to affirm the boundary between the protected zone and the utilization zone village forest area. Boundary signs in the field notify everyone of the zone's protected status. The boundary sign (a nameplate) is posted following the boundary at every 100 meters.



Figure 1: Forest patrol



Figure 4: Community used GPS



4. Designing village forest annual plan, which is approved by the Forest Management Unit of Bungo District. The design of forest village management plan involved related stakeholder and youth in the participatory manner. The document is compulsory for village forest councils as their responsibility to manage the forest.



Figure 5: Finalization Village forest management plan by Forest Management Unit facilitator



Figure 6: FGD for formulating Village Forest Management Plan



Figure 7: Input the potency of village forest

5. Forest enrichment / Agroforestry - The payment for ecosystem services was also used to finance the distribution of areca nut seedlings. The seedlings were distributed to every household who needed to plant it around their farms. There are 7,000 seedlings for 150 Households. In Laman Panjang village, the local community agreed to enrich their farms with Robusa Coffee. The local community has got knowledge how to cultivate it. The group of coffee farmer started to make seed for the Robusta coffee.



Figure 9 : Areca nut seed nursery

Figure 8: Distributing Areca nut tree



Figure 10: Seeding Robusta Coffee in a group at Laman Panjang village

## 6. 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. At this time, the Rattan Manau has got buyers from Java and Sumatera Island.



Figure 11 : Rattan as the potency of NTFP



Figure 12: Activity to sort out the rattan

#### 7. Benefit sharing from Community PES Bujang Raba project

The COVID pandemic slowed the production of agriculture in Indonesia. People did not go tapping the rubber and the factory of rubber stopped its works. The price of rubber was very low. The condition was worsening when the Muslim people celebrated Eid Mubarak, where the expenditure could not be controlled. To anticipate it, the government of 5 villages in Bujang Raba agreed to distribute pack of groceries and masks for all households.



Figure 13: Distribution pack of groceries and 500 masks in Lubuk Beringin village

Figure 15 : Distribution of groceries



The number of participants who received a pack of groceries in each of the villages:

1. Laman panjang village : 202 households
2. Senamat Ulu village : 337 households
3. Lubuk Beringin village : 110 households.
4. Buat village : 360 households
5. Sungai telang village : 561 households
- Total : 1,579 households

In addition, Lubuk Beringin also agreed to purchase one buffalo, the meat of buffalo distributed to all households in the village. Meanwhile, the allocation of carbon credit was also distributed to orphans, elderly people, and disabled people in each village. The data of vulnerable people can be accessed from the Village Information system (VIS).



Figure 16 : Carbon credit for elderly people



Figure 17: Carbon credit for disable person

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 :

The blessing of carbon credit during the pandemic is very helpful for communities around the forest. With the price of rubber plummeting, no one even bought it because the factory closed. The community was helped by the sale of wind (Carbon in local terms) in their forests.

#### 8. 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.

The picture as follow :



Figure 19 : Volleyball field from carbon credit



Figure 20 : Signing board of village forest, as informative board



Figure 21 : Renovation hanging bridge from carbon credit

## 9. National and international events

KKI WARSI actively promotes learning in Bujang Raba both at the national and international levels. This is an example of the first community REDD+ project in Indonesia to receive international support through a voluntary carbon market mechanism. In the event, several community leaders such as village heads, chairmen of the CBFM forum, traditional leaders, and women leaders, became resource persons to share stories about experiences at the site level in natural resource management. Events that have been held online due to the pandemic include:

### A. Webinar on Green Development during the Covid19 Pandemic

Green Development is a lofty ideal in terms of sustainable development. However, in its application, green development is still not evenly applied. The Covid-19 pandemic seems to remind us to evaluate the exploitation that has been passed. It's time for policy makers and the community to be more prudent in carrying out development. It has been almost 3 decades since KKI Warsi helped the community and assisted the communities around the forest so that the existing forests could be maintained and could benefit them. KKI Warsi had the opportunity to be a speaker in the Webinar "Green Development: Learning from Rural Areas".

In the event, the Coordinator of the REDD+ program of KKI Warsi Emmy Primadona Than shared the experience of community assistance in Bujang Raba. The assistance carried out can maintain local wisdom that is ecologically beneficial, by successfully reducing the rate of deforestation in village forests. The community's efforts, paid off and received incentives for environmental services from the voluntary carbon trading scheme.



Figure 22: Sharing session about the green development in Pandemic Covid 19, case study Bujang Raba

- b. Webinar on the database system "The potency of micro spatial plan" as the basis for village development planning in Bungo Regency. Realizing the challenges in the preparation of development planning at the village level, KKI Warsi together with the Bungo Regency Government conducted intensive discussions to encourage effective, efficient, and broad impact village development planning. The roses gave birth to a joint design to build a Village Micro spatial plan database system, which was carried out in villages in Bujang Raba and its surroundings.

The village micro spatial plan database model, which is built digitally, is expected to be able to become a database for village development planning, which is oriented towards sustainable natural resource development, and contributes to low-emission development. On this occasion, one of the Village Heads in Bujang Raba (Mr. Jamris) acted as a resource person to share experiences about the PRM application that he had applied. This activity was held on Thursday, September 24, 2020, at 10.00-12.00, with zoom application.



Figure 23: Sharing session about the micro spatial plan as the guidance for village development plan in Bujang Raba

C. Virtual Talk show [EU Climate Diplomacy Week 2020]

Forest protection and conservation has been carried out by community groups living in and around the forest. The role of communities in forest conservation is in line with efforts to address climate change. In Indonesia, this effort is carried out by several indigenous peoples through various social forestry schemes or other schemes. Social forestry has brought a positive

trend towards deforestation reduction efforts that contribute to reducing carbon emissions. There are many potentials and benefits of environmental services managed by the community in supporting the national target of reducing deforestation. To discuss this, Warsi, as the selected partner of EU Climate Diplomacy Week 2020, held a virtual talk show with the theme Community's Role in Forest Conservation. Featuring indigenous communities from Jambi, North Kalimantan, and Central Sulawesi who will talk about forest conservation and reducing deforestation. One of the resource persons representing Jambi was the Bujang Raba community, which was represented by Mr. Bakian as a Community Leader, and Misrayanti as a representative of the Women's Group.

Bakian conveyed the community's initiative to protect the forest. Forests for them are an economic source of non-timber forest products, such as sap, honey, and of course also fruits, petai, jengkol, durian and others. In addition, the forest is always also the guardian of a stable water source to irrigate the community's rice fields. With this condition, the community does protect and protect their forests. The bonus that communities receive from maintaining these forests is voluntary carbon returns. "Selling wind" is what the community calls the carbon returns they have received twice from the success of maintaining the Bujang Raba forest. Misrayanti also stated that the community uses village forests to improve the community's economy through non-timber forest products. One of them is manau rattan which is commonly found in village forest areas. The community practices sustainable harvesting to take rattan. This rattan began to be marketed to the rattan market in Cirebon. In the future, the marketing of Manau rattan is designed to be carried out by Bumdes together with rattan producing villages around Bujang Raba.

This activity was held on Day / Date: Sunday, October 25, 2020

Form : Virtual Talkshow via Zoom (The talkshow will be held in Bahasa and English)

**EU CLIMATE DIPLOMACY WEEK 2020**

**VIRTUAL TALKSHOW**  
**PERAN MASYARAKAT ADAT**  
**DALAM KONSERVASI HUTAN**

Minggu, 25 Oktober 2020  
Pukul 13:00 - 15:00 WIB (GMT +7) via ZOOM

**SPEAKERS**

 <b>RUDI SYAF</b> Direktor Eksekutif KKI WARSI	 <b>PROF. DR. FRIEDHELM GOLTZENBOTH</b> Universitas Hohenheim, Jerman	 <b>DENNYS GREIS ADJI</b> Tokoh Perempuan Pipikoro, Sulawesi Tengah
 <b>BAKIAN</b> Tokoh adat dari Lubuk Bebingin, Jambi	 <b>HANSICOF</b> Kepala Desa Setulang Kalimantan Utara	 <b>ROSNI</b> Anggota Kelompok Perempuan Pengelola Anggrek Hutan dari Desa Bahagia Sulawesi Tengah
 <b>MISRAYANTI</b> Perwakilan kelompok perempuan dari Sungai Telang, Jambi	 <b>BASMAIRAN</b> Ketua Kelompok Sadar Pariwisata/Pok Darwis, Setulang, Kalimantan Utara	<b>MODERATOR</b>  <b>ANGGALIA PUTRI PERMATASARI</b>

**Link Registrasi:**  
[bit.ly/MasyarakatAdatJagaHutan](https://bit.ly/MasyarakatAdatJagaHutan)

The Talkshow Will Be  
Held In Bahasa and English

kki warsi  
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 KKI Warsi  
 www.warsi.or.id

D. Sharing session about the potency of PES

Sharing Warsi's experience with academics, researchers and campus activists of Sulthan Thaha Jambi Islamic University. Monday 16 November 2020



Figure 25: sharing session about climate change and the potency of ecosystem services

- E. National Webinar with the theme of Utilization of Village Funds for spatial-based mapping of village resources
- Indonesia has more than 70 thousand villages. Some of these villages still do not have a definitive boundary system for each other. This condition often causes uncertainty in the management of the area by its people. Warsi in a number of regions has developed a spatial-based village database. Initially, the database that was present in the form of an application was intended to collect data on the potential of villages containing spatial and social data of their communities. This data can be used for village development planning. Warsi's learning in Bujang Raba was then shared in a National Webinar with the theme Of Village Fund Utilization for spatial-based mapping of village resources. The speakers at the event were: Director of KKI Warasi (Rudi Syaf), Head of Laman Panjang Village – Bujang Raba (Jamris), Head of Bungo Regency Bappeda (Dedi Irawan), Head of Community Empowerment division of PMD Bungo Regency (Iman Budiseriawan), and Representatives from the Ministry of Villages. Conducted on Monday 15 February 2021.



Figure 26: Sharing session about the allocation of Village Fund for mapping natural resources

## A2. Key Successes and Challenges

In this 2020 - 2021 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. The outbreak of the Covid-19 pandemic, which was felt up to Bujang Raba, greatly affected aspects of people's lives. This is exacerbated by the decline in the price of rubber commodities, which have been the mainstay of the community, thereby reducing people's income. For the rural poor, the proceeds from carbon credits, which are distributed in cash and in kinds are very helpful to meet their basic lives.
3. The ability of the community to adapt to the Covid19 pandemic by implementing strict health protocols and following the vaccination program, is an important factor so that various activities can be implemented.
4. Currently, the government is preparing technical regulations on the economic value of carbon, this has an impact on the restraint of carbon sales transactions, so that the amount of funds to support activities is reduced.

### 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.

## PART B: PROJECT ACTIVITIES

The pandemic of Covid 19, during this period, halted some activities in the field because the economy of the local community was paralyzed along with the market.

### Eco-tourism

During the pandemic of Covid 19 the activity of eco-tourism was closed. The policy for social distancing and traveling made the destination of eco-tourism in some areas in Bujang Raba was abandoned. The narration of Covid 19 as the global pandemic that killed millions of people, made the local community in Bujang Raba refusing the visitor from outsider. WARSI as the facilitator used the strategy of facilitation into the mitigation of transmitting Covid 19. It is very important because there was a lot of false information about the Covid 19 accepted by the local community.

Together, with the local community, we build the Covid post and provide an isolation house for people infected by Covid 19. In addition, in some places, we provide hand sanitizer and liquid soap for a healthy life. The demand for handicrafts also went down dramatically.

### Forest Patrols

Two forest patrols are conducted per year to protect the coffee trees which were threatened by the stifled market, i.e., they could have been a target for those desperate for income.



Figure 27: Forest patrole

### Camera Traps

Camera traps were installed in 2020 in order to monitor biodiversity. IUCN list species are noted to be living 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 (IUCL 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.



*Neofelis diardi* Macan dahan

Figure 28: photo captured by camera trap



Figure 29: one of IUCL list captured by camera trap



Figure 30: installed camera trap



### Agroforestry

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. The seeds for areca have been distributed from the nursery.



Figure 32 : Seed nursery

### 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

Ecotourism and handicrafts were halted due to COVID 19. Training went forth on the sustainable harvesting of rattan. This way the trees, where rattan grows, are protected from accidental cuts and damage.



Figure 33 : Training how to harvest rattan

### 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.



Figure 34 : Steps in designing village regulation

## 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:



Figure 35 : Contract and MoU with 5 villages with Warsi



Figure 36 : Deputy Director of WARSI signed the contract

**Table C1: Historical Analysis of PVCs available for issuance**

Vintage	Area (ha)	Tech. Spec	Total tCO2 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
2014	5,336	REDD+	47,388	20%	9,478	37,910	5,000	32,910
2015	5,336	REDD+	47,388	20%	9,478	37,910	5,000 issued 2015 15,000 requested for issuance this 2020-2021 period totaling 20,000	17,910
2016	5,336	REDD+	47,388	20%	9,478	37,910	37,910	0

2017	5,336	REDD+	47,388	20%	9,478	37,910	37,910	0
2018	5,336	REDD+	47,388	20%	9,478	37,910	37,910	0
2019	5,336	REDD+	47,388	20%	9,478	37,910	2,090	35,820
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
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
<b>TOTAL</b>	<b>5,336</b>		<b>379,104</b>	<b>20%</b>	<b>75,824</b>	<b>303,280</b>	<b>140,820</b>	<b>TOTAL SALEABLE PVCs not yet issued on Markit: 162,460</b>

**Table C2: Issuance Request for reporting period 01/01/2020 – 31/12/2020 and 01/01/2021 – 31/12/2021 (made on the basis of 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
2015	5,336	47,388	20%	9,478	37,910	15,000	17,910
2020	5,336	47,388	20%	9,478	37,910	0	0
2021	5,336	47,388	20%	9,478	37,910	0	0
<b>TOTAL</b>	<b>5,336</b>	<b>142,164</b>	<b>20%</b>	<b>28,434</b>	<b>113,730</b>	<b>15,000</b>	<b>17,910 from the 2015 vintage</b>

#### Available for issuance

Available for Issuance	
2014	32,910 tCO2 (5,000 were issued)
2015	17,910 tCO2 (5,000 were issued in 2015; 15,000 issuing this period)
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)
<b>TOTAL</b>	<b>162,460 tCO2</b>

#### Table C3: Allocation of issuance request

Table C3: Allocation of issuance request

Buyer name/ Unsold Stock	No. PVCs transacted	Markit ID (if available)	Tech spec
COTAP	5,585		REDD+
Fairatmost	2,000		REDD+
Unsold	7,415		REDD+
<b>TOTAL</b>	<b>15,000</b>		

#### 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	Zeromission	6,009				60%			\$0
2018	2015	Zeromission	500				60%			
Total sales						Total to participants in 2018****				

\*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

**PVCs Sold in 2019**

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	Zeromission	500				50%			
2019	2015	Zeromission	7,343				50%			
2019	2015	Zeromission	345				50%			
2019	2015	C-level	125				50%			
2019	2016-2017	Zeromission	50,000				50%			
2019	2017	Zeromission	306				50%			
Total sales						Total to participants 2019****			Disbursed to community:	In trust:

\*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.

**PVCs Sold in 2020**

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	Zeromission	75				50%			
2020	2017	Zeromission	460				50%			

2020	2017-02018	Zeromission	50,071				50%	
2020	2018	Zeromission	3,127				50%	
Total sales				Total to participants****				

\*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.

### PVCs Sold in 2021

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	Zeromission	819				50%			None left over*****	
Total sales					Total to participants****				Disbursed to community*****		

\*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.

## 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 2020-2021: satellite image detected deforestation in the project area was 18.3 ha, the detail as follow : In 2020 deforestation 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 deforestation was occurred 5.7 ha in Sangi-Letung	n/a forest patrol and ground checking
	Remote Sensing of Project Area	Ex-forest fire	Carried out in 2020 -2021 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 this period due to COVID.	Take the same spot for photo point  Photos will be taken for future annual reports and available in the next report
<b>Forest Condition</b>	Patrols carried out by community	2 times per year (2 per community)	In the period 2020 -2021, the Illegal encroachment occurred 12.6 ha and 5.7 ha respectively. The illegal encroachment was 12.6 in 2020(In Sangi-Letung 3.4 ha, in Lubuk Beringin 2.8 ha, and in Sungai Telang 6.3 ha) In 2021 the illegal encroachment was 5.7 ha in Sangi-Letung These are accounted in Annex 2	Tagging/signboard zonation in protected zone
	Analysis Deforestation due to illegal encroachment (2013-2021)	<646 without project intervention (Table 13 of PDD)	Up to 2021 it was projected <646 ha deforested without project intervention, but in reality 117,7 ha deforested due to illegal encroachment and forest fire	Forest patrol and give awareness raising to the 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.
<b>Land Use Change Monitoring</b>	Land cleared for agroforestry in the forest	0 ha cleared	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  Below thresholds according to annex 2	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.
<b>Biodiversity Monitoring</b>	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.
<b>Water Availability</b>	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	
<b>Socio-economic Monitoring</b>	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	decline	Not because of forest destruction but the COVID 19 pandemic, and low commodity prices	

Women enterprise	Stop operating this period	The condition Covid 19	
Strengthening VFC	Design village forest annual plan	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	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 <sup>st</sup> training on how to develop coffee nurseries 2 <sup>nd</sup> training on how to harvest rattan in sustainable way 3 <sup>rd</sup> training on how to design village regulation 4 <sup>th</sup> training on forest patrol	

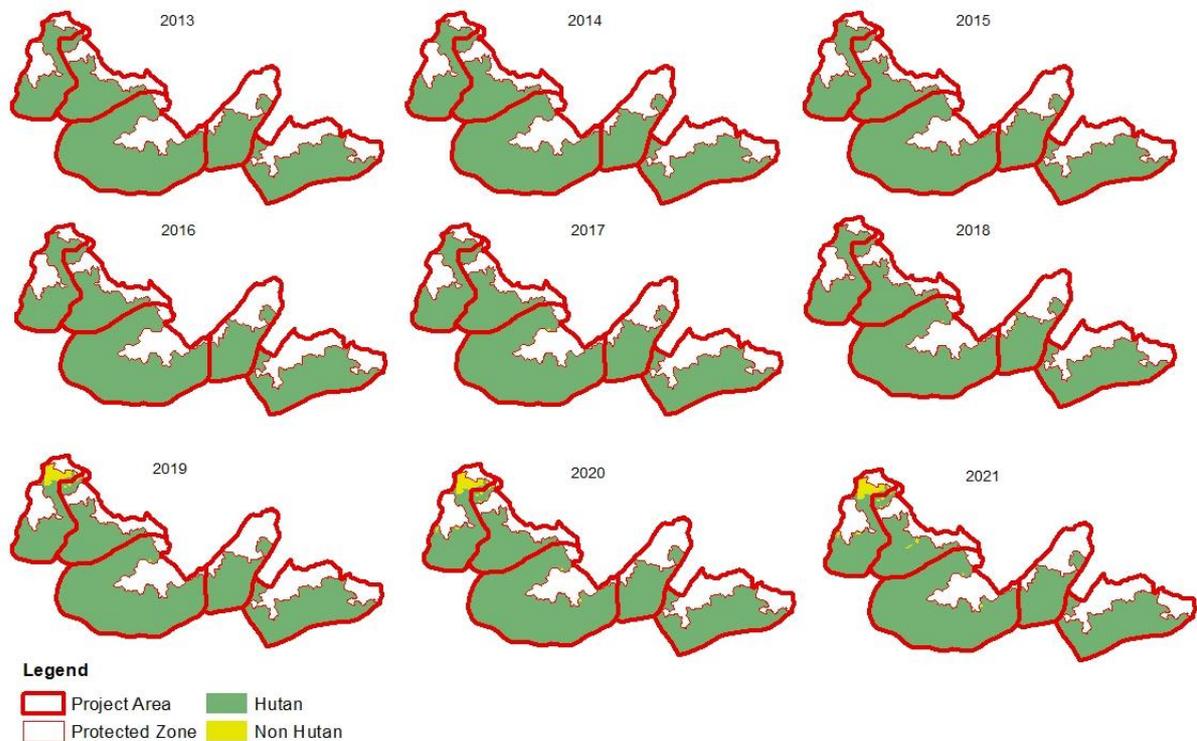


Figure 37: Citra satelite for forest cover

From figure 37, forest cover from 2013 – 2018 tends to be stable, although deforestation is relatively small in area, due to illegal encroachment. 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. Likewise, from period from 2020 to 2021, if found small deforestation occurred due to illegal encroachment.

Based on the fact above, the deforestation in the project area is quite high which has been predicted. The local community understand it is hard to avoid deforestation until zero, so they make commitment to prevent deforestation 75% in the project area. Despite of that, from the range period from 2014 – 2021 the performance to reduce deforestation in the project area is beyond the stated target (see the graph 1)

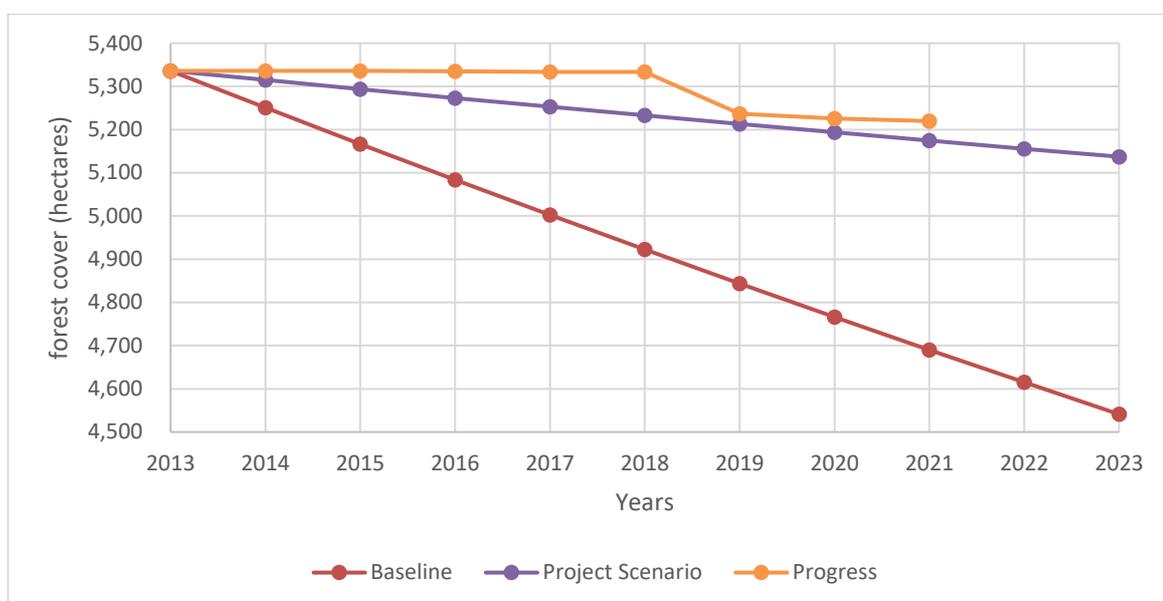
In the area ex-forest fire (2019), from the analysis satellite imaginary, the color is light green, it means the area has been covered with shrub and other plants as natural regeneration. Because the location is hilly and the area is quite large, currently only natural restoration is carried out. In the tropical forest such as in the Bujang Raba landscape, natural restoration has a significant impact on the natural succession of plants quickly. At the age of 0-7 years the land will become shrubs, the age of 7-15 years becomes a young secondary forest, the age of 15-25 becomes a medium secondary forest, and over 25 years old becomes an old secondary forest. 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.

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.

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

1	2	3			4	5
Year to	Year	Forest cover (ha)			% of year 2013 (5,336 ha) forest cover remaining per project year <b>based on actual remaining hectares (3c)</b> Year X 3C / Year 0 3A	% of year 2013 (5,336 ha) forest cover remaining per project year <b>based on the project scenario (3b)</b> Year X 3b/Year 0 3a
		3a	3b	3c		
		Baseline	Project Scenario (75%) of baseline forest area remaining in hectares per project year	Actual remaining forest area in hectares per project year		
0	2013	5,336	5,336	5,336.0	100.00%	100.00%
1	2014	5,251	5,315	5,336.0	100.00%	99.6%
2	2015	5,167	5,294	5,336.0	100.00%	99.2%
3	2016	5,084	5,273	5,334.6	99.97%	98.82%
4	2017	5,003	5,253	5,333.2	99.95%	98.44%
5	2018	4,923	5,233	5,333.2	99.95%	98.07%
6	2019	4,844	5,213	5,236.7	98.14%	97.7%
7	2020	4,766	5,194	5,225.5	97.93%	97.34%
8	2021	4,690	5,175	5,219.7	97.82%	96.98%
9	2022	4,615	5,156			
10	2023	4,541	5,137			

**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
0	2013	0	0	0	0	0	0
1	2014	85,4	85,4	21,3	21,3	0	0
2	2015	84,0	169,4	21,0	42,3	0	0
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	103,4	-	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	180,2		
10	2023	73,8	794,8	18,5	198,7		

### Deforestation in this Period Explained

During this annual reporting period (2020-2021) a total of 18,3 ha were deforested within the Bujang Raba project area. Deforestation figures were 12,6 ha in 2020 and 5,7 ha in 2021. Both figures are below the project scenario deforestation projections. The deforestation area is above the threshold (as demonstrated in Table E2, Graph 1, and Table E3). Calculations in table E2 shows that up to this project reporting period in 2021, the % forest cover remaining from the original forest cover at the start of the project in 2013 (5,336 ha) was projected to be 96.98% thanks to the project. The actual percentage of the 2013 forest cover remaining is more than the project scenario with 97.82% remaining.

### E2: Maintaining commitments

No community group resigned from the project within the reporting period

### E3: Additional monitoring

NTFPs due to COVID 19. No monitoring beyond forest monitoring due to COVID 19. The essence of the additional activities and livelihood activities were restricted to trainings.

Currently, women's enterprises such as traditional food and handy craft were not running well, due to the 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
<b>Rattan</b>	406 unit	597 unit	643 unit
<b>Sales turnover</b>	<b>4.933.000</b>	<b>6.366.750</b>	<b>13.624.500</b>

**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 seeds in the polybag	Life-roll
1	Coffee	10,000	10,000	7,000
2	Areca nut	10,000	10,000	7,000
	<b>Total</b>	<b>20,000</b>	<b>20,000</b>	<b>14,000</b>

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).

Plan for recommendation in 2022 – 2023 we expect to make up for the unachieved target by doing fix photo point.

#### **E5: Summary of Payment Received for Sale of PVCs**

no	Year of Disbursement	Vintage of Sold PVCs	TonCo2	Price/unit (USD)	Total (USD)
1	2018	2014-2015	6.009		
2	2018	2015	500		

3	2019	2015	500		
4	2019	2015	7.343		
5	2019	2015	345		
6	2019	2015	125		
7	2019	2016-2017	50.000		
8	2019	2017	306		
9	2020	2017	75		
10	2020	2017	460		
11	2020	2017-2018	50.071		
12	2020	2018	3.127		
13	2020	2019	819		
	<b>total</b>		<b>119.680</b>		

## Part F: Impacts

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

[Berjuang Lawan Deforestasi, Perempuan Ini Antar 5 Desa Hutan Bujung Raba Raup Rp 1 M dari Jual Karbon](#)

[Senyum Semringah Warga Desa Hutan Bujung Raba Dapat Rp1 Miliar dari Jual Karbon](#)

[Berkah Karbon Bujung Raba di Tengah Wabah Covid-19](#)

[Berkah Karbon di Tengah Pandemi Covid-19, Pengelolaan Bujung Rama Hasilkan Uang Rp 1 Miliar](#)

[Menghitung Karbon - YouTube](#) - counting carbon

[Bagi-Bagi Dana Karbon Bujung Raba - YouTube](#) - carbon disbursement

[Berkah Karbon si Bujung Raba - YouTube](#)

[Dana Karbon untuk Bujung Raba - YouTube](#)

## 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
2019					0
2020					0
2021				No payments held in trust	0
Total to community:			\$	\$	
Total of payments made, payments held in trust, and payments withheld: \$					

\*(cumulative of previous reporting periods)

\*\* (payment made during associated reporting period)

\*\*\*Figure is cumulative combining previous years and that row's project year. 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 \$188,867. The remaining of the money is reserved in trust for future payment. WARSI and the local community have agreed to do disbursements annually. In 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. In the second year, 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 spent 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 clearer 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 2020, we recruited a local facilitator, Agus Sumarli, who oversees 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.	<b>Financial and reporting training</b> <b>Objective:</b> <ol style="list-style-type: none"> <li>1. Improve capacity building for village forest treasurer and village-own enterprises how to make book keeping and financial report</li> <li>2. Improve capacity building for village forest treasurer and village-own enterprises how to make narrative report</li> <li>3. Filling and documenting archives and data analysis.</li> </ol>	Sangi Letung, Dusun Buat, Senamat Ulu, Lubuk Beringin and Sungai Mengkuang Kecil

2.	<b>Socialization about rattan and provide training for village own-enterprises and local community how to harvest rattan in sustainable way</b> <ol style="list-style-type: none"> <li>1. Training harvesting rattan in sustainable way</li> <li>2. Training specification of rattan to be harvest (size, type, etc.)</li> <li>3. Designing the benefit sharing</li> <li>4. Managing financial and administration report.</li> </ol>	Dusun lubuk Beringin, Dusun Senamat ulu and Kampung Sungai Mengkuang Kecil, Dusun Laman Panjang
3.	<b>Protected zone demarcation (tagging)</b> <ul style="list-style-type: none"> <li>● Local community understand the border between utilization zone and protected zone</li> <li>● Local community understand what do and don't in protected zone</li> <li>● Make forest demarcation</li> </ul>	Dusun senamat 5 villages in Bujang Raba
4	<b>Designing the management plan of Village forest</b> <ul style="list-style-type: none"> <li>● The local community engaged actively on formulating village forest management plan</li> <li>● The management plan is presented with village apparatus and get some input</li> </ul>	5 villages in Bujang Raba
5.	<b>Participation in Webinar :</b> <ul style="list-style-type: none"> <li>● The representative women group, Misrawati talked about the relation women and forest</li> <li>● The representative of local community from Lubuk Beringin village talked about the tradition and local knowledge in managing the forest</li> <li>● The representative of head of village in Bujang Raba, talked about Micro Spatial Plan</li> <li>● The representative of local community talked about the condition of Covid 19 in the village.</li> </ul>	Representative of community in Bujang Raba

## Part I: Project Operating Costs

### Annex 1: Results

#### Allocation cost for this reporting period (2020 - 2021)

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 cost	Seeds supply for areca nut administrative	\$4,000	100%	
	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%	
Total		\$154,048		

## Annex 1: Results

The following table is the monitoring of current forest cover and carbon stocks in the five villages from the beginning of the project through to the end of 2021. These figures will be verified after year 5 through SPOT analysis and third-party verification. The conservative estimates mentioned in the PDD (Table E2) will be used to determine issuance requests spanning the first period 2014-2021.

No	Location	Forest Cover (ha)		Forest Loss (ha) *			Deforestation can be Prevented (ha)	Carbon Emission (CO2eq)*			Carbon Emission Reduction (CO2eq)	Percent Emission Reduction by 1.6% per year		
		2013	2021	Without Project (baseline)	With Project (target)	Actual		Without Project (baseline)	With Project (target)	Actual		Without Project (baseline)	With Project (target)	Actual
1	HD Kp.Sangi-Letung	736.0	717.1	89.1	19.33	18.9	70.2	117,256	25,438	24,872	92,383	0%	75.0%	78.8%
2	HD Kp.Sungai Mengkuang	634.0	632.6	76.8	16.65	1.4	75.4	101,003	21,911	1,842	99,161	0%	75.0%	98.2%
3	HD Senamat Ulu	1,095.0	1,095.0	132.6	28.76	-	132.6	174,449	37,848	-	174,449	0%	75.0%	100.0%
4	HD Sungai Telang	745.0	651.9	90.2	19.57	93.1	- 2.9	118,690	25,754	122,520	- 3,830	0%	75.0%	-3.2%
5	HD Lubuk	2,126.0	2,121.7	257.4	47.94	4.3	253.1	338,699	63,089	5,659	333,040	0%	75.0%	98.3%
<b>Grand Total</b>		<b>5,336.0</b>	<b>5,218.3</b>	<b>646.0</b>	<b>132.3</b>	<b>117.7</b>	<b>528.3</b>	<b>850,096.5</b>	<b>174,041.0</b>	<b>154,893</b>	<b>695,203.3</b>	<b>0%</b>	<b>75.0%</b>	<b>81.8%</b>

\*annual accumulation

Sources:

- 1 **Forest cover**; Landsat image analysis 2013 dan 2021)
- 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 646 hectares and smaller than the target of 132.3 hectares. Based on the established baseline, the actual deforestation that occurred was able to save 528.3 hectares of forest area or 695,203.3 tons of CO2eq. In sum, this project is able to reduce emissions within the project areas anywhere from 100% to -3.2% - averaged this is 81.8% emissions reduction set against the baseline which is greater than the target of 75% emission reductions against the baseline.

## 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		

1	Buat	736	-	-	-	-	-	9.8	3.4	5.7	18.9	717.1
2	Lamanpanjang	634	-	-	1.4	-	-	-	-	-	1.4	632.6
4	Senamatulu	1,095	-	-	-	-	-	-	-	-	-	1,095.0
5	Sungaitelang	745	-	-	-	-	-	86.8	6.3	-	93.1	651.9
3	Lubukberingin	2,126	-	-	-	1.4	-	-	2.8	-	4.3	2,121.7
Total		<b>5,336</b>	-	-	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



