THE BUJANG RABA
COMMUNITY PES PROJECT

KOMUNITAS KONSERVASI INDONESIA WARSI

2016-2017 Plan Vivo Annual Report

Reporting Priode: 2016-2017 (2 years)
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SUMMARY

Reporting period	**2 years (Jan 2016 – Dec 2017)**
Geographical Area	**Bujang Raba Landscape, Bungo District, Jambi Province**
Technical specifications in use	**Avoided deforestation (REDD+)**

Project indicators	Historical	Added/ Issued this period (2016-2017)	Total
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 indiviuals)		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)	n/a	n/a	n/a
Total sum held in trust for future PES payments (USD)	n/a	n/a	n/a
Allocation to Plan Vivo buffer to date	20,197	17,715	37,910
Saleable Emissons Reductions achieved (tCO2)	75,820	75,820	151,640
Unsold Stock at time of submission:			
2014			4,000
2017 (included in this report)			0
Plan Vivo Certificates (PVCs) issued to date			**10,000**
Plan Vivo Certificates (PVCs) requested for issuance this reporting period			**0**
tCO2 available for future issuances			**141,640**

PART A: Key Events, Success and Challenges

A1. Key Events

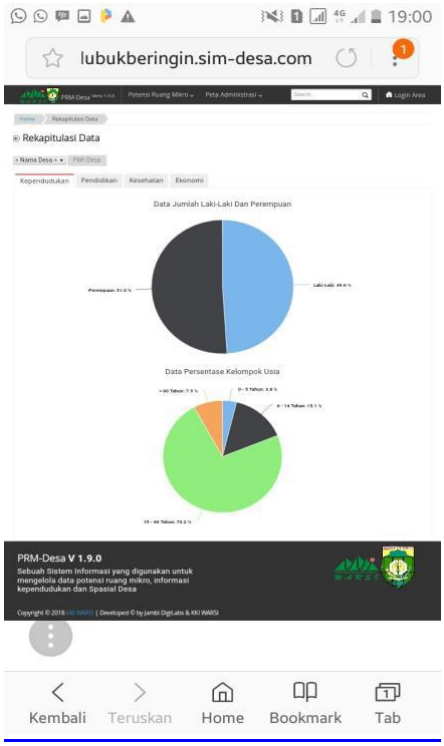
In the last two years, plenty of activities have been undertaken in the Bujang Raba community. The activities are focused on community livelihood and business models, forest protection and eco-tourism. A microspatical plan on an online basis has been developed in some villages in Bujang Raba, to link development plans with social and economic data in the village.

Futhermore, the Bujang Raba has become a role model for other village forest management groups in Indonesia. It shows that more and more community group visitors learn from the local people of Bujang Raba about forest management. Meanwhile at national and international level, WARSI is actively engaged in promoting Bujang Raba as a pilot project for adaptation and mitigation of climate change in Indonesia. Some important events are described as follow

a. Developing village micro spatial application in 5 villages in Bujang Raba

A village microspatial plan is an application created to present village capacity comprehensively such as village institutional, assets, infrastructure, demography, the village's natural resources and so on. The information system also presented detailed information about households, sources of income, education, household expenditure, and health. Futhermore, the plan delivers information about the steps of village development plan. It is designed interactively with maps, videos, and photos which make the application user- friendly. This application got a warm response from other villages in Bathin III ulu sub district, as well as Bappeda (regional development plan service). Around 10 other villages in Bathin III Hulu have allocated their village funds to start surveying their capacity in order to present on the website.

The village microspatial uses as a guideline for village governments, supporting village development plans based on its capacity, resources and needs. The application has been adopted by the villages and local government. The Bappeda and local sommunity have been trained to operate its application to updating the data. The website can be seen on www.sim-des.com.



b. Designing Village management plan for 2016 – 2017

The village forest allows the local community to manage their forest area for 35 years. Every village management group has designed a village forest management plan annually. During this period (2015-2017), the village management group has discussed the design of village forest management plan including the element of the socio-economic plan, conservation and restoration plan. The village management plan has been officially adopted by the village government..

c. Improving community economy and livelihood

In 2016 the local community in Bujang Raba designed a business plan based on their capacity and effectiveness. Based on serious discussions and assessments, they will expand into the management of rattan, and the commodity of cocoa, rubber, dragon

Figure 1 cocoa seed nursery

Figure 2 cocoa trees green house

blood (agro-forestry), as well as eco-tourism. The Tagan village started to enrich their village gardens with other commodities such as cocoa. Since the price of latex has not reached a stable price, it is important to enrich community plantation with other commodities. Cocoa seeds has been nurtured into polybags and it have been distributed to 36 households, with a total 16,000.

In Sangi Letung and Senamat ulu village, a total of 500 Jernang (Dragon Blood) seeds were distributed. Dragon blood is one of economic crops which are viable in Bujang Raba. The plant is usually found in the forest, as it climbs from tree to tree. Dragon blood is a bright red resin which has been continuously used since ancient times as varnish, medicine, incense, and dye. In the local market, the price varies from 2 – 3 million IDR per kg. Since the price is relatively high, more and more people come to the forest and harvest the dragon blood, so the population becomes rarer. WARSI and local communities therefore initiated nurseries for dragon blood, and plant it among the community rubber plantations.

Developing business plan for Rattan and Manau

We can find lots of rattan and manau growing along the river and in the forest area. It has economic value which can help to protect the forest land by providing an income alternative. Rattan and manua is much easier to harvest, requires simpler tools and is much easier to transport. It also grows much faster than most tropical wood. This makes it a potential tool in forest maintenance. On the the other side, rattan are extensively used for making baskets and furniture. Rattan accepts paints and stains like many other kinds of wood, so it is available in many colours, and it can be worked into many styles. Moreover, the inner core can be separated and worked into wicker. The forum of village forest of Bathin III Hulu, organized themselves to run a business selling raw rattan material with classification range from 5 – 7 cm in diameter. Warsi has stated making market links to the buyers in Java region.

Supporting infrastructure for eco-tourism in Lubuk Beringin

The Lubuk Beringin village has been very involved in eco-tourism. It has a dam, where many people can play, swim and bath in clean, fresh water. They also have a protected river, where you can find lots of fish swimming around the river and attracting the visitor to feed them.

Eco-tourism in Lubuk Beringin is operated by the young people. During the period of 2016 - 2017, there have been new formations of eco tourism management group. They have been trained for promotion and communication through social media.

The forestry service supported many young fruit tree, such as mango, duku, and so on, to be planted around the arena of tourism. In the future, the visitors can enjoy the local fruits on a seasonal basis.

Strengthening women cooperative group

In 2016, Mengkuang village accessed small funds from WARSI and it was used for initiating the women's cooperative. The women's cooperative used this fund for establishing a credit union, and training financial and administrative report, as well as traning for NTFP, like pandanus.

d. Training and capacity building

1. **Forest monitoring**

   Forest monitoring training aims to teach the local community how to do participative forest patrols in their village forest area. It points out how to monitor illegal logging and other forest crimes, encroachment, poaching, as well as to identify the condition of biodiversity in the forest. WARSI has trained forest guards in 5 village forest group with the total of participation of 30 people.

Figure 3: the participants of forest and monitoring patrole

Figure 4: Kuaw feather (marga Argusianus) and Deer foot print (genus Muntiacus)

2. **Eco-toursim management training**
   The training was conducted in Lubuk Beringin village, as more and more people come and visit the dam and protected river in Lubuk Beringin. The participants of the training are the eco-tourism management group. They got skills how to design the tourism tours and understand the material behind the nature. The young people also learn how to do promotion through social media.

3. **Management training for rattan and manau**
   To improve the added value of NTFP for Rattan, the local community in 5 village forest were trained to manage rattan.

4. **National and international Seminars and workshops**
   Participating in international events at COP23, under the presidency Fiji, in Bonn, WARSI presented advancing the implementation of REDD+ using social forestry approach.

5. **Training and exchange visit**

   The project also facilitates exchange visits with local communities in Bujang Raba to learn from other places as well as to improve community knowledge.

   On the other hand, Bujang Raba is also a major destination for other social forestry group to learn from it. We count at least 2- 3 visit a year.

A2. Key success and Challenge

a. The community in Bujang Raba has a village forest scheme, and as such the project has achieved significant progress in terms of conserving the remaining low land forest in Sumatera, Indonesia. Actually, the local community has been carrying out sustainable forest management for years despite not being aware of the concept of SFM (Sustainable Forest Management). For example, the community plants bamboos along the river. which avoids soil erosion and prevents runoff. The communities currently transport bamboo by boat following the river flow, without needing transportation.

b. Moreover, the local community has its own microspatial plan, such as prohibiting forest conversion in hilly areas as this is where water catchments supply water for rivers and can generate free electricity for households, as well as providing watering for rice fields, plantations, and so on. As a facilitator, WARSI urges participating communities to document and monitor all the initiatives, and assess any opportunities to promote community-based natural resource management worldwide.

c. As the community PES projects and the Plan Vivo certification are something new and emerging in the region, and there are still misconception about REDD+ among the local government and community, WARSI has faced some challenges. As such, WARSI has attempted to promote the concept of REDD+ among the local community by explaining that REDD+ this is not only about selling carbon and being paid, but about designing and planning sustainable forest management in Bujang Raba.

d. The next step for the project will be to find potential buyers in order to compensate the community for all its efforts. To do this, WARSI will keep promoting the Bujang Raba project both at the national and international level and use networking.

A3 Project developments

As a result of writing the PIN, the PDD and the overall validation process, there has been some progress both for the community and WARSI in terms of promoting community-based REDD+. WARSI has managed to clarify some of the surrounding issues around REDD+/PES with local, regional and national governments. WARSI has also managed to build a lot of trust in the 5 villages Bujang Raba which was necessary to achieve Plan vivo certification. One of the outcomes is the establishment of the Village Forest Forum in Bujang Raba. The forum consists of representatives from the 5 Village forests to discuss the implementation of village forest managements plans.

At the community level, there has been a lot of capacity-building to train communities in carbon accounting so they can monitor progress independently. Together with WARSI, a monitoring system has now been developed (see Annex I-II).

For WARSI, this is an opportunity to showcase sustainable forest management conducted by the community and supported with qualitative and quantitative data.

Moreover, the Bujang Raba community has become a role model for sustainable forest management and REDD+ across Indonesia as the government is currently deliberating whether to adapt the monitoring system established in Bujang Raba for 5 further village forests in Bungo district.

Part B: Project activities

B1. Project activities generating Plan Vivo Certificates

Table B1: Project activity summary

Name of technical specification	Area	No smallholder	No Community
REDD+	*5,336*		*5 villages*

1. **Forest Patrol**

   Every 6 months, forest rangers in each of the villages of Bujang Raba conducted forest patrols. The objective of the patrol is not only to monitor the forest area, but also to monitor the biodiversity, and NTFP. The team patrol consists of 4 people, equppied with GPS. It found that one tree was felled with the diameter 60cm. The species was Kedondong Hutan (genus *Dacryodes*), and it was cut by a chain saw by the illegal logger. However, since the tree is spongy, the tree was left.

picture 2. Falling tree cut by illegal logger was abandoned.

picture 3. Forest Patrole is taking a rest in Sungai Telang village forest.

The Forest rangers walked along the patrol track, but nothing significant was reported. On the forest patrol track found feather of bird Kuau (marga *Argusianus*) and foot prints of deer (genus *Muntiacus*).

Picture 4: Kuau Feather (*Argusianus family)*

Picture 5: Deer footprint (Genus *Muntiacus)*

The forest patrol aslo found the spot of NTFP such as Sialang tree (Honey) and rattan (lots of rattan sources)

Picture 6: Sialang tree

Picture 7: rattan

2. Agroforestry

One of the main income sources of the communities are the agroforestry rubber gardens. Income from rubber will be supplemented through the introduction and intensification of high value crops such as cardamom, cocoa, and other NTFPs that can be integrated into the smallholder agroforestry plots.

3. **Establishing community business for Rattan**

As part of the village forest management plan, communities in Bujang Raba are developing rattan as a business opportunity because of abundant resources in the forest. Its business has got a link to a rattan supplier in Indonesia (Java island), as well as an exporter.

The structure of rattan management consists of the representative of local communities in 5 villages in Bujang Raba. They have been trained to sustainably manage rattan production according to the product specification. They also conduct *quality control* for the product to ensure the consistency.

Picture 8. Drying rattan

4. Improving the infrastructure of Eco-tourism in Lubuk Beringin

The dam and river surrounded with forest becomes a new attraction for visitors to visit the Lubuk Beringin village. WARSI helps communities providing infrastructure, such as a *flying fox* and tires for swimming. The flying fox is a swing set between two trees crossing the river.

WARSI also supported the construction of the sign "LUBER" which is the abbreviation of Lubuk

Beringin, as a selfie spot for visitor.

B2. Project activities in addition to those generating Plan Vivo Certificates

- Ecotourism: Local tourists from the district capital in Bungo are visiting the area, drawn by its natural beauty, as well as the scenic cultural communities. The project will develop tourism packages to direct visitors to scenic sights including waterfalls and for exploring the area's immense biodiversity. The community will generate income by providing visitors with guide services, food, and lodging.
- Sale of handycrafts/NTFPs: The project also generates income by selling handycrafts and other NTFP, securing a diverse income stream for the local communities.

Part C: Plan Vivo Certificate issuance submission

C1. Contractual statement

Any issuances are based on signed PES agreements with participants complying with all the minimum requirements states in these agreements.

C2. Issuance request

Table C1: Historical Analysis of PVCs available for issuance

In the previous AR, the year-by-year estimated cimate benefit detailed in the PDD (Part G.9 Ecosystem Service Benefits) was taken to calculate saleable ERs. However, the project has decided to shift to a system of average ERs per year across the project period. 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.

Vintage	Area (ha)	Tech. Spec	tCO2 available from previous periode	Total tCO2 achieved this period	% buffer	No. of PVCs allocated to the buffer account	Saleable PVCs	No. PVCs issued	tCO2 availabl e for future issuance s
2014	5,336	REDD+	0	47,388	20%	9,478	37,910	5,000	32,910
2015	5,336	REDD+	0	47,388	20%	9,478	37,910	5,000	32,910
2016	5,336	REDD+	65,820	47,388	20%	9,478	37,910	0	37,910
2017	5,336	REDD+	0	47,388	20%	9,478	37,910	0	37,910
TOTAL	**5,336**		**0**	**189,552**	**20%**	**37,912**	**151,640**	**10,000**	**141,640**

Table C2: Issuance Request for reporting period 01/01/2016 – 31/12/2016 and 01/01/2017 – 31/12/2017

Vintage	Area (ha)	Tech. Spec	tCO2 available from previous periode	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
2016	5,336	REDD+	65,820	47,388	20%	9,478	37,910	0	65,820 + 75,820
2017	5,336	REDD+	0	47,388	20%	9,478	37,910	0	
TOTAL	**5,336**		**0**	**94,776**	**20%**	**(18,956 - 1241) 17,715[1]**	**75,820**	**0**	**141,640**

C3. Allocation of issuance request

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

C3. Data to support issuance request

Please refer to Section E1 and Annex 1.

Part D: Sales of Plan Vivo Certificates

D1. Sales of Plan Vivo Certificates

Table D1: Sales of Plan Vivo Certificates

Vintage	Buyer	No of PVCs	Price per PVC ($)*	Total sale amount ($)*	Price to participants per PVC ($)*	% Sale price received by participants
2014	Zeromission	5,000				60%
2015	Zeromission	1,000				60%

[1] Adjustment: Project issued 20,197 buffer credits for period 2014-2015 which was slightly over the average of 18,956. The issuance of buffer credits has therefore been adjusted for this period to reflect the overissuance of buffer credits in the previous period. The buffer credits from all four years (2014-2018) now adds up to 37,912.

TOTAL		6,000				60%

E. 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	Carried out in 2017 with Landsat 8 which detected no deforestation in the project area	n/a
	Fixed point photography taken by community members	Every 2 years	Based on community review, no changes occured to the forest cover with the method of Fixed photo point. We used prefer to use the Citra Satelite analysis image, which can cover entire area.	Missed in 2017, but taken in 2018 (next AR).
Forest Condition	Patrols carried out by community	10 per year (2 per community)	10 Patrols (2 in each community per year).	
	Slash-and-burn area for new agroforestry plots	<3.95 ha	0 ha for slash-and-burn agriculture because the communities are intensifying their own agricultural land with agroforestry techniques	
	Illegal Logging in Project Area observed during patrols	<10 felled trees	1 felled tree, but it wasn't taken out the project area	

	Logging and/or Forest Clearance in Leakage Zone	0 ha	0 ha	
Land Use Change Monitoring	Land cleared for agroforestry in the forest	0 ha cleared	0 ha	
	Land cleared for smallholder oil palm plantations	0 ha cleared	Will be included in monitoring for 2018	
Biodiversity Monitoring	Biodiversity Surveys and photography	10 annually	10 biodiversity surveys carried out. Communities will prepare reports starting 2018	
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	Results will be provided in 2018	
	Trainings delivered to the communities	10 trainings	10 trainings were delivered on forest patrolling for 5 villages (2 per village for 35 people). 1 training for 30 people was carried out on how to establish a cacao and dragon blood nurseries and how to care for agroforestry	

As part of the project monitoring plan, WARSI and the participating communities will assess the impact of mitigation activities as reflected in the Plan Vivo Standard. The system for monitoring carbon stock in the project intervention area forms only one part of the overall monitoring plan for the project. Other tracking indicators include the socio-economic monitoring, biodiversity monitoring, monitoring other environmental services and monitoring the drivers of deforestation.

The data produced as part of the project monitoring system will contribute to improving and refining the technical specifications. The monitoring data gathered on a quarterly and annual basis will be archived both at the project office in the village as well as by WARSI to ensure that important data do not become lost.

During the severe drought season in 2015, more than 111.392 ha of forest fires occurred in Indonesia, Bujang Raba remained relatively safe. No forest fires happened in the project location. Local communities kept alert to protect and monitor the forest. Based on monitoring forest cover by using fixed photo points, it shows that the forest cover on 5 village forest in Bujang Raba landscape remain stable (consult Annex 1), which was confirmed by Landsat analysis. Since the forest cover remains stable, it can be said that the local community deserves to get 100% of payment based on performance, as described on table 22 and 23 follows:

E1: Annual Thresholds and Targets

The annual threshold and targets for Project Performance Monitoring based on total of deforestation

		Threshold Achievement Level		
Village Forest Council	**Total area**	**Green Level - if the local people are able to reduce emission approximately**	**Yellow Level - If the local people are able to reduce emission from 25% until 75%**	**Red Level - if the local community are able to reduce emission < 25%**
Sangi - Letung	736	< 0.55 ha	From 0.55 -1.63 ha	**> 1.63 ha**
Sungai	634	< 0.48 ha		**> 1.41 ha**
Senamat Ulu	1,095	< 0.82 ha	from 0.82 – 2.44 ha	**> 2.44 ha**
Sungai Telang	745	< 0.56 ha	from 0.56 – 1.65 ha	**> 1.65 ha**
Lubuk Beringin	2,126	< 1.59 ha	from 1.59 -4.72 ha	**> 4.72 ha**
Threshold Range	**5,339 ha**	**< 3.95 ha**	**More 3.95 ha and less than 11.85 ha**	**> 11.85**
Benefit Allocation		**100%**	**50%**	**0%**

Referring to threshold achievement level of 5 village forests in the Bujang Raba landscape, they all reached the green level. There was no deforestation in the area, because the local community is aware that it should be protected for water resources and to prevent natural disasters. The local community only intensified their already existing agricultural land to be productive with multi-tier commodities such as cocoa, rubber, cardamom, and other fruits products.

Forest patrols were carried out four times in the monitoring period (2016-2017).

Date	Activity	Result
Beginning of 2016	Forest patrol and biodiversity study	1. Forest cover is good 2. No illegal logging 3. No forest encroachment, illegal logging and poaching
May 2016	Forest patrol and carbon accounting	1. Forest cover is good 2. No illegal logging 3. No forest encroachment, illegal logging and poaching 4. Permanent sampling
Feb 2017	Forest patrol and PDD validation	1. Forest cover is good 2. No illegal logging 3. No forest encroachment, illegal logging and poaching
Dec 2017	Forest patrol	1. Forest cover is good 2. No illegal logging 3. No forest encroachment, illegal logging and poaching

It should be noted that local people are directly involved in forest monitoring and report incidents to the forest monitoring teams in real-time.

The project has developed a new and improved monitoring framework which will be implemented during the course of 2017 and which will be reported against in the next Annual Report (see Annex 2 and 3).

E2. Maintaining commitments

No community group resigned from the project within the reporting period.

E3. Additional monitoring

The Socio-Economic monitoring plan focuses on women's enterprise indicators such as capital assets in the micro-finance accounts. It also monitors community participation in village meetings, and access of low-income families to medical services. A household survey is conducted every five years to assess changes in household assets and income. These are reflected in the "well-being" indicators including condition of houses, access to electricity, sanitary facilities, and land ownership. The socioeconomic monitoring plan and potential wellbeing indicators are summarised in annex 3.

At this time, 3 women cooperatives have been established in the Bujang Raba Community. These cooperatives run micro enterprises dealing with traditional food, handy craft and credit unions. Even though these business are small-scale, the women participate actively and effectively in decision-making. In the future, they hope their small organization can contribute to family income. In terms of handy craft products, the experience has been shown that the demand of the handy craft product is quite often in the local market, however their production is limited because women groups only make handy crafts in their spare time.

There has also been a focus on some NTFP commodities, which have been planted for the last two years, as follows:

Table E3: NTFP commodities

No	NTFPs	Number of	Number of seeds in the polybag	Life-roll
1.	Dragon blood	100	100	100
2.	Cocoa	13,125	13,125	3,000
3.	Rubber	32,000	15,000	
4.	Cardamom	1,000	-	800
	Total	**46,225**	**28,225**	**3,900**

At this time, the average production of rubber in Bujang Raba is 700 kg per month and the total of cacao is 25 kg per month. Cocoa is a new commodity grown by local community. Right now the seeds in the nursery for cocoa are increasing gradually. Hopefully for the coming years, cocoa will be alternative income for local community besides rubber.

Environmental and biodiversity monitoring focuses on tracking forest cover indicators, as discussed above. Ground-based patrols will monitor indicators like area burned by forest fire and number of trees illegally felled. Biodiversity will be tracked through the monitoring of apex

species like the endangered Sumatran tiger. Camera traps will be installed with the number of individuals in the protected area assessed annually. Patrols will also monitor the incidence of poaching, illegal hunting, and conflict. Other indicator species will also be tracked including observations of larger primates, hornbills, bears, and leopards. Finally, water availability will be monitored in the main river by tracking shortages to the village micro-hydro generator and rice fields.

Over the past two years, it has been observed that there are 57 type of birds found in the protected forest of Bujang Raba, as well as 25 types outside the forest area. It is also noted that 33 species are categorised as having high conservation values as defined by CITIES and IUCN. Other species in the area include the Sumatran tiger, bear, and tapir.

Part F: Impacts

F1. Evidence of outcomes

Some of the impacts and outcomes of this project can be seen on this link here:

https://www.youtube.com/watch?v=78P5OtS8C-8

Publications endorsing the Bujang Raba projects :

Belajar dari Bungo : Mengelalo Sumber daya alam di era desentralisasi(Learning from

Bungo : Natural resource management in decentralization era)
(CIFOR:2008).http://www.cifor.org/publications/pdf_files/Books/BAdnan0801.pdf

Part G: Payments for Ecosystem Services

G1. Summary of PES by year

Table G1: Summary of payments made and held in trust

1. Reporting year (mm/yy – mm/yy)	2. Total first year payment	3. Total ongoing payments	4. Total payments made (2+3)	5. Total payments held in trust	6. Total payments withheld
No payments yet, first sale in early 2018					
TOTAL					

Part H: Ongoing participation

H1. Recruitment

No further communities have been recruited in the reporting period.

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 24 community meetings. The local community in Bujang Raba take active and effective participation in designing and implementation of the project. Some activities are related to protection of village forest, institutional strengthening and improving economi livelihood and they are described as follows:

No	Activity	Location
1.	GPS training with local cadres. Objective: 1. Preparing local cadre to use GPS for Mapping, forest patrol, etc. 2. Capacity-building 3. Next step, the local cadre will be trained for data collection	Sangi Letung, Dusun Buat, Senamat Ulu, Lubuk Beringin and Sungai Mengkuang Kecil
2.	Facilitation for 3 women group/cooperative 1. Training to produce handycrafts from NTFP, such as plaiting pandanus/bamboo, rattan, etc. 2. Institutional strengthening for woman cooperative, such building internal mechanism, designing management plans, etc. 3. Managing internal Conflict resolution 4. Managing financial and administration report. Objective: the women group would have a medium to have discussions and improve their capacity-building in the organization; find alternative incomes to improve economic livelihood.	Dusun lubuk Beringin, Dusun Senamat ulu and Kampung Sungai Mengkuang Kecil, Dusun Laman Panjang

3.	**Training of Designing Eco-tourism.** After a learning visit to Kayu Aro, Kerinci, the local community received knowledge on how to develop eco-tourism in their villages. As a follow-up to the training, village forest management group in Senamat ulu discuss the potency of eco-tourism with other members. From serial meetings, the Village forest	Dusun senamat ulu.
4.	**Discussion to welcome Prime minister of Norway.**	Dusun Senamat
	Output : 1. Design the route of field visit. 2. Consolidation with other stakeholders. 3. Establish local committee in the village.	Ulu

5.	**Try out eco-tourism to the group visit of STIA SETIH Muara Bungo.** 1. Local community prepare/propose the eco-tourism packs. 2. Local community have collaboration with tourism service at district level. 3. Building the mechanism of benefit sharing 4. Youth were preparing T-shirt as souvenir.	Dusun lubuk beringin
6.	**Forest Patrol and carbon accounting**	Kampung sangi letung dusun buat, senamat ulu, and lubuk beringin
7.	**Try out benefit sharing mechanism from WARSI.** Objective : 1. Encourage the village forest management group to decide their priority plans for village forest 2. After that, the village forest apply small proposal to implement village forest management plans. 3. There were 3 mains activities: capacity building, Institutional strengthening, and seeds nursery to rehabilitate degraded land surrounded village forest. 4. Identify the beneficiaries based on some indicators.	Kampung sangi sungai letung dusun buat.

6.

	Initiated by Village forest form which consist of the representation of 5 village forest in Bujang Raba, the forum try to figure out the priority plans for community PES project. At the meeting, WARSI also presented the study of carbon accounting to community, so the village forest groups are really aware the richness of their village forest. WARSI also give brief introduction about the mechanism of PES Project, including kind of incentives and how it is distributed proportionally.	in Bujang Raba.
9.	**Participatory village forest boundaries** Recommendation from local community, it is very important to establish village forest boundaries. Its recommendation has been delivered to the forest service district, and they agree to work on it. On the process, the representative of each village were	Kampung sungai mengkuang kecil dusun laman panjang dan dusun
10.	**Establish intensive communication with local community to welcome/prepare any visitor/group/media/Ministry that will visit Bujang Raba.**	5 Village in Bujang Raba

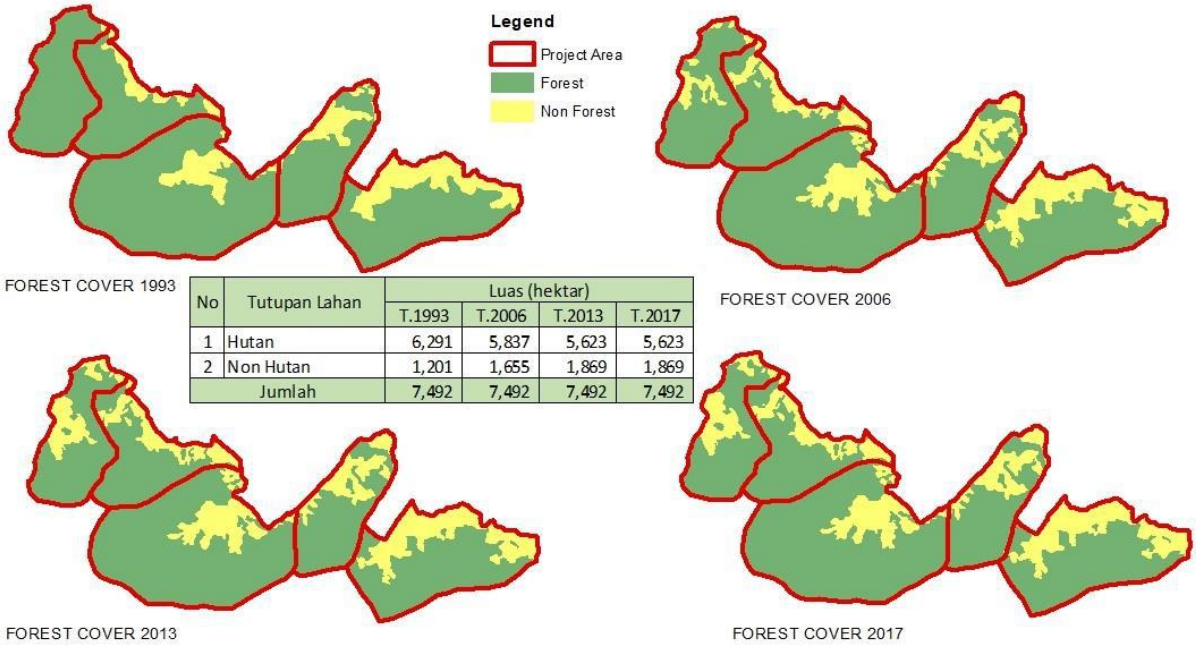
Part I: Project operating costs

I1. Allocation of costs

Expense	Narrative	Amount US$	Contribution from sale of PVCs	Contribution from other sources
Monitoring Staff	Technicians and Field workers undertaking monitoring	3,000	0%	Donor funding
Operational	Project	400	0%	Donor funding
	Seedlings	1,000	0%	Donor funding
	transportation	500	0%	Donor funding

	Handy craft	600	0%	Donor funding
	Eco-tourism	500	0%	Donor funding
	Assessment biodiversity in Bujang Raba	1,000	0%	Donor funding
	Designing village planning with Participatory conservation planning	1,000	0%	Donor funding
	Institutional strengthening for woman cooperative	600	0%	Donor funding
	Facilitating field visit to Bujang Raba	1,000	0%	
Total		9,600		

Annex 1: Results



No	Tutupan Lahan	Luas (hektar)			
		T.1993	T.2006	T.2013	T.2017
1	Hutan	6,291	5,837	5,623	5,623
2	Non Hutan	1,201	1,655	1,869	1,869
Jumlah		7,492	7,492	7,492	7,492

Landsat satellite image analysis shows no deforestation in the project area between 2013 – 2017.

The following table is the monitoring of current forest cover and carbon stocks in the five villages which will be verified after year 5 trough SPOT analysis and third party verification. In the meantime, the conservative estimates mentioned in the PDD will be used to determine issuance request in the first period 2014-2019.

No	Location	Area	Forest Cover (ha)		Carbon Stock (CO2eq)		Forest Loss (ha)		Deforestation can be Prevented (ha)	Carbon Emission (CO2eq)		Carbon Emission Reduction (CO2eq)	Percent Emission		Target Emission Reduction (%)
			2013	2017	2013	2017	Without Project	With Project		Without Project	With Project		Without Project	With Project	
1	HD Kp.Sangi- Letung, Bungo, Jambi	736	736	736	461,472	461,472	46	0	46	38,444	0	38,444	1.6%	0%	100%
2	HD Kp.Sungai Mengkuang, Bungo, Jambi	634	634	634	397,518	397,518	40	0	40	33,116	0	33,116	1.6%	0%	100%
3	HD Senamat Ulu, Bungo, Jambi	1,095	1,095	1,095	686,565	686,565	68	0	68	57,196	0	57,196	1.6%	0%	100%
4	HD Sungai Telang, Bungo, Jambi	745	745	745	467,115	467,115	47	0	47	38,914	0	38,914	1.6%	0%	100%
5	HD Lubuk Beringin, Bungo, Jambi	2,126	2,126	2,126	1,333,002	1,333,002	133	0	133	111,049	0	111,049	1.6%	0%	100%
Grand Total		**5,336**	**5,336**	**5,336**	**3,345,672**	**3,345,672**	**333**	**0**	**333**	**278,718**	**0**	**278,718**	1.6%	**0%**	**100%**

Based on the table above, in the period between 2013 -2017, the local community in Bujang Raba have been successful at maintaining deforestation up to 100% (and therefore achieved a 278,718CO2eq carbon emission reduction), while when designing the project, it was estimated to be only 75% successful (278,718 x 75% = 209,039).

209,039/4 year (2013-2017) = 52,260

52,260 – 25% (leakage 5% and buffer zone 20%) = 39,195 CO2eq

The annual reduction emission of 37,910 is taken from the average number for the period 10 years.

Sources:

1 **Forest cover**; *Landsat image analysis 2013 dan 2017*
2 **Carbon stock (1,316 ton CO2eq per hectares);** *PDD The Bujang Raba PES Project 2015*
3 **Baseline Deforestation, 1.6% per year;** *KKI Wars*