

# THE BUJANG RABA COMMUNITY PES PROJECT



KOMUNITAS  
KONSERVASI  
INDONESIA  
Warsi

## 2014 – 2015 Plan Vivo Annual Report

Reporting Period: 2014 – 2015 (2 years)

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## Summary

<b>Project overview</b>	
Reporting period	2 years (1 <sup>st</sup> January 2014 – 31 <sup>st</sup> December 2015)
Geographical areas	Bujang Raba Landscape, Bungo District, Jambi Province.
Technical specifications in use	Avoided Deforestation (REDD+)

<b>Project indicators</b>	<b>Historical</b>	<b>Added/ Issued this period (2014- 2015)</b>	<b>Total</b>
No. smallholder households with PES agreements	n/a	n/a	n/a
No. community groups with PES agreements (where applicable) by Dec 2014	n/a	5	5
Approximate number of households (or individuals) in these community groups	n/a	1,300	1,300
Area under management (ha) where PES agreements are in place	n/a	5,339	5,339
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	n/a	20,197	20,197
Unsold Stock at time of submission:			
2014 (added this reporting period)			5,000
2015 (added this reporting period)			5,000
Saleable Emissons Reductions achieved (tCO2)		80,789	80,789
<b>Plan Vivo Certificates (PVCs) requested for issuance this reporting period</b>		<b>10,000</b>	<b>10,000</b>
tCO2 available for future issuances	n/a	70,789	70,789

## Part A: Project updates

### A1 Key events

On behalf of the community of Bujang Raba, KKI Warsi has undertaken plenty of activities over the last two years to promote Bujang Raba at the national and the international level. Through discussions with the local government and media promotion, Bujang Raba is well known as a pilot project for adaptation and mitigation of climate change. Some important events are described below:

#### a) National and international Seminars and workshops

The first Village Forest in Indonesia was established in Bujang Raba in 2009. Throughout the following years, the Ministry of Forestry has approved another 4 village forests. There is a lot of interest in how village forests work and how they help to reduce deforestation whilst contributing to sustainable livelihoods. KKI WARSI is also actively promoting the local initiatives of Bujang Raba at the local, national and the international level. During the 2 year reporting period (January 2014 – December 2015), KKI WARSI has presented Bujang Raba as a case study at many events, for example at the Asian Social Forestry Network Seminar (22- 23 May, 2014). At the same event, KKI WARSI also brought local handy craft products to the event fair. The local community received a lot of praise for their products, which stimulated general interest in visiting this location.

The second event was in Sabah, Malaysia, in May 2014, where the objective was to share experiences in developing social forestry in Indonesia. The third forum KKI WARSI attended an International seminar entitled “Securing Community Rights, Forest Protection, and Climate Mitigation at Scale: Gaps, Opportunities, and Priorities” in Oslo in May 2015 where the organization participated as a speaker. On this occasion KKI WARSI presented the case study of the Jambi Province where one of the last rain forest in Indonesia is being protected.

Figure 1: Presenting the Draft Paper Community and Economy Livelihood, Indonesia case study



Figure 2 : Promotion of community Handy Craft derived from Non-Timber Forest Product



Figure 3 : Sharing experiences about protecting the last Rainforest in Sumatra, Case Study in Jambi province - Oslo, 5-6 May 2015



Figure 4 : Participating in COP 21 UNFCCC Paris, Nov- Dec 2015



Figure 5 : Participating in COP 21 UNFCCC Paris, Nov- Dec 2015



### b) Promotion of Community PES Project and Market Event

KKI WARSI and other NGOs agreed to collaborate and form a PES consortium to promote community-based forest management (CBFM) projects under the Plan Vivo Standard. There are more than 18 potential project locations in Indonesia where community PES Projects could be developed. Several meetings, workshops and discussions have been carried out to develop Project

Idea Notes (PIN) and Project Design Documents (PDD). Exchange learning was also conducted among NGOs related to technical carbon counting, monitoring and evaluation, among others. Furthermore, the PES consortium has conducted an event to promote PES projects in April 2015, where there was an overall positive response from a wide range of audiences, including the Ministry of Forestry, the social forestry directorate, the banking sector, carbon market practitioners, and so on. The government recommended to support community PES projects.

Figure 6: Market Event with PES consortium



### c) Training and exchange visit

In addition to national and international initiatives, some activities relating to capacity- building have been conducted. Capacity-building has become a regular training activity in Bujang Raba, as is described in the annual village forest management plans. One of these activities was to train the members of the village forest management group and village government in participatory mapping, using GPS and carbon accounting which was carried out in early 2014. This meant that serial carbon monitoring for the PES Project can be carried out by local communities. In order to train the local community on how to develop eco-tourism in Bujang Raba, the representative of the local community conducted a field visit in Kerinci and passed on his knowledge to local people. As a result of these training sessions, the local community is becoming more skilled in carrying out monitoring, and setting up its own eco-tourism enterprise. The carbon accounting enables local people to measure carbon in their village forest area.

Figure 7: Training using of GPS and Carbon Accounting



Figure 8: Senamat Ulu village is presenting eco-tourism design planning



#### **d) Project Validation**

In October 2015, the Bujang Raba Community PES project was validated by independent consultant, Katja Pellini. During Katja's 5-day field visit, she met with WARSI in the main office in Jambi and visited the community of Bujang Raba, in the Bungo district. After her validation visit, there were 2 corrective actions that the project was asked to respond to which are briefly described in section A4.

Figure 9: Short break after viewing the location of permanent sampling plots



**e) Promotion of Bujang Raba as a model of adaptation and mitigation of climate change.**

The Village forest in Bujang Raba is quite well-known for its local initiatives. WARSI has received international attention for the achievements of the local community and how the village forest is managed based on local wisdom and traditional knowledge. Within the two year reporting period, Bujang Raba received the following high-profile visitors:

• ***The Prime Minister of Norway, Erna Solberg***

On the 15<sup>th</sup> of April, 2015, Erna Solberg visited the Bujang Raba project. The Indonesian Minister for Environment and Forestry, Siti Nurbaya and the Norwegian ambassador to Indonesia, Stig Traavik accompanied her. The short visit took place in Desa Senamat Ulu, which is one of the village forest in Bujang Raba. On the occasion, the representative of Norwegian government engaged in an interactive dialogue with local people regarding community tenure rights and the benefits of village forests for communities, whereas the other group also visited the Orang Rimba (a semi-nomadic tribe in Jambi) who live in an area with palm oil concessions.

Figure 10: Prime Minister of Norway entered into dialogue with Orang Rimba and local community



- **Xavier University, Manila visit Bujang Raba community**

In July 2015, researchers from the Xavier University, based in Manila, the Philippines, conducted shared learning activities regarding REDD+ issues. They are interested in how Indonesia will adopt REDD+ schemes in the context of Community PES project. Part of the discussion was to promote Community PES Bujang Raba worldwide in their website.

- **NGO 'Paradise' (West Papua) visited Bujang Raba Community**

Another local NGO, AS Paradisea from West Papua, is also interested to study the community forest management scheme in Bujang Raba. They conducted a field visit in November 2015. The NGO is interested in seeing how the local people are involved in managing community forests in Bujang Raba.

## A2 Successes and challenges

The community in Bujang Raba has a village forest scheme, and as such the project has achieved significant progress in term of conserving the remaining low land forest in Sumatera, Indonesia. The local community has been carrying out sustainable forest management based on traditional knowledge despite of 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.

Moreover, the local community has its own micro spatial plan, such as prohibiting forest

conversion in hilly areas as this is where water catchment supplies water for rivers and generates 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.

As the community PES projects and Plan Vivo certification are something new and emerging in the region, there are still misconceptions about REDD+ among the local government and community. As such, WARSI has promoted the concept of REDD+ among the local community by explaining that REDD+ is not only about being paid for the sale of carbon certificates, but about designing and implementing sustainable forest management in Bujang Raba.

Financial support from this project will finance the village management plans and support social funds for vulnerable people. WARSI also faced a few challenges to do with technical knowledge at the start of the project, such as understanding baselines, reference areas, methodologies, data supply, etc. Thanks to all technical input and financial support, WARSI could submit a PIN and PDD to the Plan Vivo Foundation and the Bujang Raba PES Project was validated.

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 national and international forums and use the networking.

### **A3 Project developments**

During the process of writing of the PIN, the PDD and the validation process, there has been some progress both for the community and WARSI. In terms of engaging the government, WARSI has managed to clarify some of the surrounding issues around REDD+/PES. 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.

### **A4 Outcomes of Project Validation**

The independent validator found that the Bujang Raba makes an excellent site for a community-

managed carbon project. Based on the information in the field, the validator found that the five village forest agreements have provided an effective barrier to encroachment from the outside to sustain the efforts of the community, the established institutions need funding to implement their own management plans, they need to learn from this implementation and ultimately to be able to demonstrate (both to all members of the community and to the local government) that conservation based village development is a viable option to rapid economic gains from oil palm, illegal logging and industrial scale rubber plantations.

In terms of the PDD, WARSI has provided an accurate description on activities already undertaken, and given a good background of the community structure and project area in five hamlets/villages (dusun) covered by this project, it also has a detailed description on the planned activities and system to monitor the results which will keep evolving based on experience and learning. Intended project benefits are likely to be delivered.

Figure 11: Observations from the validation report:

Validation Report Observations	Project Actions Taken
<p><b>1st Observation:</b>  <i>It is recommended that as soon as a potential buyer is identified, each VFC will open their own bank account and guidelines on financial reporting required from the community are included in the monitoring plan/quarterly reporting format.</i></p>	<p>Opening a bank account will take only 1 day, so WARSI will facilitate to open new bank account as soon as a sales commitment to support Bujang Raba project is made.</p>
<p><b>2nd Observation:</b>  <i>All VFCs should have signed copies of all agreements and plans submitted to the government concerning the village forest management. It is recommended that WARSI will provide them folder of containing all documents in case they do not have them in file.</i></p>	<p>To avoid missing documents, WARSI will make several copies and save them in a special folder.</p>
<p><b>3rd Observation:</b>  <i>Providing further training and capacity building in computer literacy, accounting, management of monitoring systems is likely to enhance the ability of community to take full responsibility on their existing village forest management plans.</i></p>	<p>Computer literacy training has been conducted several times for the community groups. Some of them are quite capable, and so they can take full responsibility on their village forest management plans. However, this process needs to be repeated to sharpen their knowledge.</p>
<p><b>4th Observation:</b>  <i>Management of the area currently allocated as production forest in between the project area and the Kerinci Seblat National Park (Figure 4. Annex 2.) is critical for the protection of Bujang Raba. This area is currently allocated to Concession Company, but lacks permits</i></p>	<p>Pending</p>

<p><i>(moratorium for issuing permits to forest area). Based on statements of the community forest is still same type of primary forest as the one in Bujang Raba area.</i></p>	
<p><b>5th Observation:</b> Internalisation of the village forest management plans by the community is ongoing, but understanding of the content of these (technical plans conforming to government requirements) and role that they play in the village forest management is still limited.</p>	<p>Although the process of socialization is still going on, WARSI tries to link the village forest management plans to Village development plans, so they can be integrated with each other. At the governmental level, WARSI also lobbied the local government to provide development plans to village forest in Bungo.</p>
<p><b>6th Observation:</b> As the community holds traditional space separating clearly women's and men's roles, women are currently not present in the VF committees. This should also not be required, but instead WARSI could think of other ways to better involve women in VF management (for example while women have a clear role in economic activities they could involve in financial management of the VF).</p>	<p>WARSI is fully aware that the participation of women in village groups is still limited due to cultural norms. This situation is exacerbating due to the weak capacity of women to participate actively and effectively on VF. WARSI takes an inclusive approach where women are given a space to participate in decision-making, and using women as facilitators. In the future, the participation of women is setting 30% from the total of member group.</p>
<p><b>7th Observation:</b> In the early stages of implementation, the role of WARSI is to ensure the village forest management benefits all members of the community. WARSI can help to voice out concerns of those who are not actively participating in planning and decision-making. Monitoring results are discussed with the VFC/VFF to ensure that importance of including these social indicators is gradually institutionalised in village forest management led by the community.</p>	<p>This process is ongoing. The monitoring system has been developed and includes social indicators. Based on the communication with local government, the monitoring system is reflecting the condition of the village and suitable with what governments want.</p>

## A4 Future Developments

In the future, the project may expand to include forest management of the protected forest area. WARSI is in discussion with the Forest management Unit to discuss further activities.

## Part B: Project activities

### 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	n/a	5 villages

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

- Agroforestry: One of the main income sources in the communities are agroforestry rubber garden. 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.
- 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 handy crafts/NTFP: The project also generates income by selling handy crafts and other NTFP, securing a diverse income stream for the local communities.

## 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 states in these agreements.

### C2 Issuance request

**Table C2: Statement of emissions reductions available for issuance as Plan Vivo Certificates based on activity for reporting period 01/01/2014 – 31/12/2014 and 01/01/2015 – 31/12/2015**

Vintage	Total area (ha)	Tech. Spec	tCO <sub>2</sub> available from previous periods	Total tCO <sub>2</sub> achieved this period	% Buffer	No. of PVCs allocated to the buffer account	No. PVCs requested for issuance from saleable carbon	tCO <sub>2</sub> available for future issuances
2014	5,336	REDD+	0	50,900	20%	10,180	5,000	35,720
2015	5,336	REDD+	0	50,086	20%	10,017	5,000	35,069
<b>TOTAL</b>	<b>5,336</b>		<b>0</b>	<b>100,986</b>	<b>20%</b>	<b>20,197</b>	<b>10,000</b>	<b>70,789</b>

**Table C3: Allocation of issuance request**

Buyer name/ Unsold Stock	No. PVCs transacted	Markit ID	Tech spec
KKI WARSI	10,000	Available upon registration	REDD+
<b>TOTAL</b>	<b>10,000</b>		

### C3 Data to support issuance request

Please refer to Annex 1.

## Part D: Sales of Plan Vivo Certificates

### D1: Sales of Plan Vivo Certificates

None sold since this is the first issuance.

**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
n/a	n/a	n/a	n/a	n/a	n/a	n/a

\*Pricing reported for internal monitoring purposes only. Pricing information will be removed from the final published document.

## Part E: Monitoring results

### E1: Ecosystem services monitoring

Under the project monitoring plan, WARSI and the participating communities will assess the impact of forest loss mitigation activities as reflected in the Plan Vivo Standard. The system for monitoring carbon stocks in the project intervention area forms only one part of the overall monitoring plan for the project (as required by the Plan Vivo Standard). 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, where more than 111,392 ha of forest fires occurred in Indonesia, Bujang Raba remained relatively safe. No forest fires happened in the project location. The local community remained alert to protect and monitor the forest. Based on monitoring forest cover by using fixed photo points, it shows that the forest cover for 5 village forests in the Bujang Raba landscape are stable (consult Annex 1). 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 in table 22 and 23:

**Table E1: Annual Thresholds and Targets for Project Performance Monitoring based on total of deforestation**

Threshold Achievement Level				
Village Forest Council	Total area (ha)	Green Level - if the local people are able to reduce emission approximately >75%	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 Mengkuang	634	< 0.48 ha	from 0.48 – 1.41 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
<b>Threshold Range</b>	<b>5,339</b>	<b>&lt; 3.95 ha</b>	<b>More than 3.95 ha &amp; less than 11.85 ha</b>	<b>&gt; 11.85 ha</b>
<b>Benefit Allocation</b>		<b>100%</b>	<b>50%</b>	<b>0%</b>

For the last two years, forest patrol was conducted at least three times in 5 village forest, as follows:

Date	Activity	Result
Beginning of 2014	Forest patrol and biodiversity study	<ol style="list-style-type: none"> <li>1. Forest cover is good</li> <li>2. No illegal logging</li> <li>3. No forest encroachment, illegal logging and poaching</li> <li>4. Biodiversity inventory</li> </ol>
May 2015	Forest patrol and carbon accounting	<ol style="list-style-type: none"> <li>1. Forest cover is good</li> <li>2. No illegal logging</li> <li>3. No forest encroachment, illegal logging and poaching</li> <li>4. Permanent sampling plot and tagging</li> </ol>
November 2015	Forest patrol and PDD validation	<ol style="list-style-type: none"> <li>1. Forest cover is good</li> <li>2. No illegal logging</li> <li>3. No forest encroachment, illegal logging and poaching</li> <li>4. PDD validation report</li> </ol>

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 2015 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: Socioeconomic 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 seeds	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

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 the local community. Right now the total number of seed nurseries for cocoa is increasing gradually. Hopefully in the coming years, cocoa will be alternative income source for the local community besides rubber.

#### **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 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. Please see the annex 4 for details.

Of the past two years, it has been observed that there are 57 type of birds found in protected forest of Bujang Raba, 25 families 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 project:

- Belajar dari Bungo: Mengelola 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](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 made as yet				
<b>TOTAL</b>					

## 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 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.	GPS training with local cadres.	Sangi Letung,

	<p><b>Objective:</b></p> <ol style="list-style-type: none"> <li>1. Preparing local cadre to use GPS for Mapping, forest patrol, etc.</li> <li>2. Capacity building</li> <li>3. Next step, the local cadre will be trained for data collection and data analysis.</li> </ol>	Dusun Buat, Senamat Ulu, Lubuk Beringin and Sungai Mengkuang Kecil
2.	<p>Facilitation for 3 women group/cooperative</p> <ol style="list-style-type: none"> <li>1. Training handy craft from NTFP, such as plaiting pandanus/bamboo, rattan, etc.</li> <li>2. Institutional strengthening for women's cooperative, such as building internal mechanisms, designing management plans, etc.</li> <li>3. Internal conflict resolution</li> <li>4. Managing financial and administration report.</li> </ol> <p>Objective: the women's group would have a means to have discussion and improve their capacity building in their organization; find alternative income to improve economic livelihood.</p>	Dusun lubuk Beringin, Dusun Senamat ulu and Kampung Sungai Mengkuang Kecil, Dusun Laman Panjang
3.	<p><b>Training of Designing Eco-tourism.</b></p> <p>After learning visit to Kayu Aro, Kerinci. The local community has get some knowledge how to identify the potency of eco-tourism in their place. Follow up the training, village forest management group in Senamat ulu discuss the potency of eco-tourism with other members. From serial meetings, the Village forest management group has made sketch map about the potency of Eco-tourism in Senamat Ulu. Local cadre will use GPS to plot the coordinate and draw it on sketch map.</p>	Dusun senamat ulu.
4.	<p><b>Discussion to welcome Prime minister of Norway.</b></p> <p>Output :</p> <ol style="list-style-type: none"> <li>1. Design the route of field visit.</li> <li>2. Consolidation with other stakeholders.</li> </ol>	Dusun Senamat Ulu

	3. Establish local committee in the village.	
5.	<p><b>Try out eco-tourism with the group visit of STIA SETIH Muara Bungo.</b></p> <ol style="list-style-type: none"> <li>1. Local community prepare/propose the eco-tourism packs.</li> <li>2. Local community have collaboration with tourism service at district level.</li> <li>3. Building the mechanism of benefit sharing</li> <li>4. Youth were preparing T-shirt as souvenir.</li> <li>5. Women's Cooperative, Dahlia, was promoting bamboo chairs and other plaiting products from NTFP.</li> </ol>	Dusun lubuk beringin
6.	<b>Forest Patrol and carbon accounting</b>	Kampung sangi letung dusun buat, senamat ulu, and lubuk beringin
7.	<p><b>Try out benefit sharing mechanism from WARSI.</b></p> <p>Objective :</p> <ol style="list-style-type: none"> <li>1. Encourage the village forest management group to decide their priority plans for village forest</li> <li>2. After that, the village forest apply small proposal to implement village forest management plans.</li> <li>3. There were 3 mains activities: capacity building, Institutional strengthening, and seeds nursery to rehabilitate degraded land surrounded village forest.</li> <li>4. Identify the beneficiaries based on some indicators.</li> </ol> <p>.</p>	Kampung sangi sungai letung dusun buat.
8.	<p><b>FGD for Community PES Project</b></p> <p>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</p>	5 village forests in Bujang Raba.

	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.	
9.	<p><b>Participatory village forest boundaries</b></p> <p>Recommendation from the local community, it is very important to establish village forest boundaries. Its recommendation has been delivered to the forest service district, and they agreed to work on it. The representative of each village has participated in developing the boundary.</p>	Kampung sungai mengkuang kecil dusun laman panjang dan dusun lubuk beringin
10.	<p><b>Establish intensive communication with the local community to welcome/prepare any visitor/group/media/Ministry that will visit Bujang Raba.</b></p>	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 cost	Project administrative	400	0%	Donor funding
	Seedlings nursery	1,000	0%	Donor funding
	transportation	500	0%	Donor funding
	Handy craft training	600	0%	Donor funding
	Eco-tourism training	500	0%	Donor funding
	Biodiversity assessment 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. Fixed Photo Points and Results

### - Monitoring forest landscape with Fixed Photo Points

#### Landscape Hutan Adat Bukit Bujang



30/11/2013

29/12/2015



30/11/2013

29/12/2015

#### Landscape Hutan Desa Senamat Ulu



30/11/2013

29/12/2015



30/11/2013



29/12/2015



30/11/2013



29/12/2015

#### Landscape Hutan Desa Mengkuang Laman Panjang

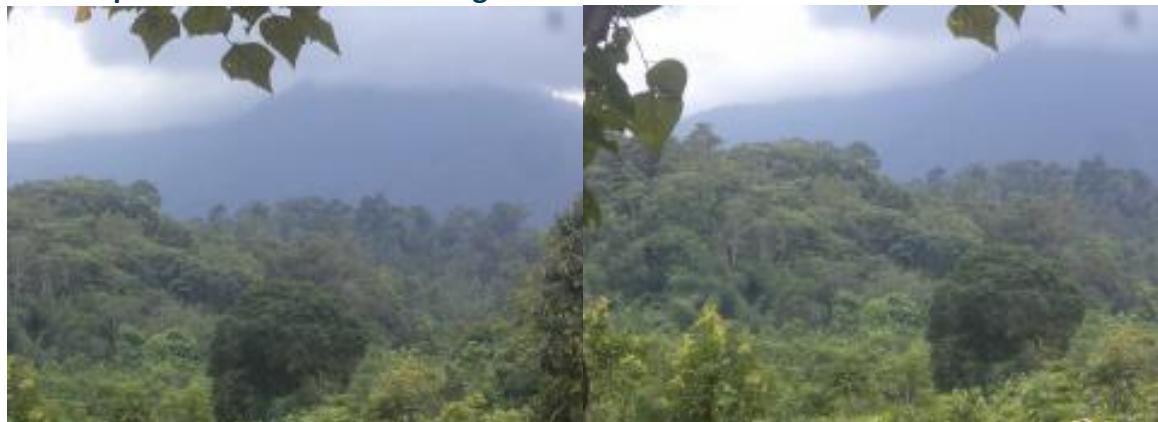


30/11/2013



29/12/2015

### **Landscape Hutan Desa Lubuk Beringin**



**08/12/2013**

**28/12/2015**

### **Landscape Hutan Desa Sungai Telang**



**30/11/2013**

**28/11/2015**

## Results

Lokasi	Luas Area	Forest Cover (ha)		Carbon Stock (CO <sub>2</sub> eq)		Forest Loss (ha)		Deforestation can be Prevented (ha)	Carbon Emission (CO <sub>2</sub> eq)		Carbon <sup>1</sup> Emission Reduction (CO <sub>2</sub> eq)	Percent Emission		Target Emission Reduction (%)
		Tahun 2013	Tahun 2015	Tahun 2013	Tahun 2015	Without Project	With Project		Without Project	With Project		Without Project	With Project	
HD Kp.Sangi-Letung, Bungo, Jambi	736	736	736	615,296	615,296	23	-	23	19,532	-	19,532	1.6%	0.0%	100%
HD Kp.Sungaimengkuang, Bungo, Jambi	634	634	634	530,024	530,024	20	-	20	16,825	-	16,825	1.6%	0.0%	100%
HD Lubukberingin, Bungo, Jambi	1,095	1,095	1,095	915,420	915,420	35	-	35	29,059	-	29,059	1.6%	0.0%	100%
HD Senamatulu, Bungo, Jambi	745	745	745	622,820	622,820	24	-	24	19,771	-	19,771	1.6%	0.0%	100%
HD Sungaitelang, Bungo, Jambi	2,126	2,126	2,126	1,777,336	1,777,336	67	-	67.5	56,420	0.0	56419.8	1.6%	0.0	100%
<b>Grand Total</b>	<b>5,336</b>	<b>5,336</b>	<b>5,336</b>	<b>4,460,896</b>	<b>4,460,896</b>	<b>169</b>		<b>169</b>	<b>141,607</b>		<b>141,607</b>	<b>1.6%</b>	<b>0.0%</b>	<b>100%</b>

Sources:

- 1 **Forest cover; Landsat image analysis 2013 and 2015**
- 2 **Carbon stock (1,316 ton CO<sub>2</sub>eq per hectares); PDD The Bujang Raba PES Project 2015**
- 3 **Baseline Deforestation, 1.6% per year; KKI Warsi**

<sup>1</sup> Emission Reductions in Annual Report is higher as the project has proven to be 100% effective. Since this ex-post project has as yet not been verified, the issuance request is based on the PDD, which includes only 75% effectiveness, so as to be conservative. The project's effectiveness will ultimately be reviewed at the time of verification in year 5.

## Annex 2: Monitoring Database to be piloted in 2016

## Annex 3: Monitoring Framework (to be piloted in 2016)

### 1. Ecosystem Services Monitoring

Monitoring type	Indicator	Methods	Indicator unit	Frequency	Intensity	Responsibilities
Forest	Forest cover change	patrols	Number of hectares of cleared/burnt forest	2 months	10km long patrol route, usually lasting at least 3 days every month	VFC
	Forest condition (degradation)	patrols	Number of felled trees	2 months	10 km long patrol route, usually lasting at least 3 days every month	VFC
	Leakage monitoring	patrols	Number of hectares of burnt and cleared trees in leakage zone	2 months	10km long patrol route, usually lasting at least 3 days every month	VFC
	Carbon stock monitoring	Re-measurement of permanent sample plots (PSPs)	Number of hectares of cleared forest and number of felled trees	Annual	20% of PSPs	Community patrols with WARSI team
		Landsat 8 satellite image analysis following WARSI procedural document	Number of hectares of forest by forest strata/classes	Annual	Protection zone	WARSI remote sensing expert
		Plot conditions as documented by fix-point photography (PSP).	Extent of cleared areas/intact areas	Annual	20% of PSPs	VFC and WARSI
	Forest condition (degradation)	SPOT satellite image classification	Hectares of degraded forest	Every 5 years	Protection zone	WARSI remote sensing expert
	Leakage mitigation	Data is recorded periodically	Number of community members involved in livelihood and rehabilitation activities	Annual	Village-wide	WARSI
Biodiversity	Status of Sumatran tiger population	Camera traps	Number of recorded individuals	Annual	Protection zone	WARSI
	Reduced threats	patrols	(encroachment, poaching, illegal, logging, human wildlife	2 months	10km long patrol route, usually lasting at least 3 days every month	VCF

			conflict, fire)			
	Encounter rates of high conservation value species	patrols	Frequency of sightings per HCV species	2 months	10km long patrol route, usually lasting at least 3 days every month	VCF
Water	Water availability	Check how many times does the water pump break because there is too little water	Number of times the micro-hydro station stops working because of limited water supply, Number of times water to rice fields is delayed	Annual	Micro-hydro station, rice field	VCF

## 2. Socioeconomic monitoring

Form Monitoring Socio-economy									
Bujang Raba PES Project									
Name of Village : _____									
Year : _____									
No	Activity	Indicator	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Verification tools	Remarks	
A	Women Cooperative	1 Number of Women Cooperative in the village					Report from women cooperative. Financial report		
		2 Number of member							
		3 Number of saving account in cooperative (IDR)							
		4 Number of benefit/profit (IDR)							
B	NTFP	1 Type of NTFP that is managed					Report from VFC		
		2 Number NTFP which is managed							
		3 Number of NTFP/handy craft sold							

		3	Total benefit (IDR)					
C	Health service	1	Number of people access health service				Report from head of Village	
D	Education	1	Number of student enrolled in high school / university				Report from head of Village	
		2	Number of people graduation from university					
E	Electricity	1	Number of household get access of electricity				Report from head of village	
		2	Number of households do not get access of electricity					
F	Garden	1	Total commodity planted				Documentation of seed nursery, total production and so on from the farmer group	
		a. Cocoa						
		b .Rubber						
		c. cardamom						
		d. other						
		2	Number of production each of commodity					
		a. Cocoa						
		b .Rubber						
		c. Cardamom						
		d. other						
		3	Number of ha farming area that has (not) been managed					

### 3. Environmental and biodiversity monitoring

Indicator	Methods	Indicator unit	Frequency	Intensity	Responsibilities
Status of Sumatran tiger population	Camera traps	Number of recorded individuals	Annual	Protection zone	Warsi
Reduced threats	patrols	(encroachment, poaching, illegal, logging, human-wildlife conflict, fire)	2 months	10km long patrol route, usually lasting at least 3 days every month	VCF
Encounter rates of high conservation value species	patrols	Frequency of sightings per HCV species	2 months	10km long patrol route, usually lasting at least 3 days every month	VCF
Water availability	Check how many times does the water pump break because there is too little water	Number of times the micro-hydro station stops working because of limited water supply, Number of times water to rice fields is delayed	Annual	Micro-hydro station, sawah	VCF

## Annex 4: Community meetings and training sessions

Figure 5 : Designing a monitoring system



Figure 6 : Learning visit from Paradisea, West Papua



Figure 7 : Carbon accounting training



Figure 8 : Designing an eco-tourism package

