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Darwin Initiative Project Information

Project reference	28-004
Project title	Halting Biodiversity Declines through Enhanced Community Wellbeing in Indonesia
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Partner institution(s)	
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Project Leader name	Karmele Llano Sanchez
Project website/blog/social media	https://www.internationalanimalrescue.or.id
Report author(s) and date	Gail Campbell-Smith, Dieka, Huda, Richard Moore, Silvana Sita 31 May 2023

1. Project summary

Poverty, marginalisation and lack of opportunity drive small-scale, yet pervasive deforestation, forest degradation and biodiversity loss across much of Indonesia. Agricultural encroachment, illegal logging and hunting are contributing to the gradual erosion of ecosystems and biodiversity in Batutegei Protection Forest (BPF - 58,174 ha, Lampung Province, Sumatra) and Bukit Baka Bukit Raya National Park (BBBRNP - a 181,000 ha national park in West Kalimantan).

A socio-economic study of the villages surrounding BBRNP found that approximately 79% of households were poor and that access to employment, education or healthcare is insufficient. The overwhelming majority (92%) of respondents met basic needs by taking out loans (when available) to pay for medical care (35%), education (25%) and food (21%). As a means to obtain quick revenues, local communities mostly turn to log inside the park, with poorer households relying more heavily on unsustainable practices to meet these needs. The local orangutan population was almost decimated due to hunting, with 6 nests counted in 2015, while a large viable population existed sometime between 50 and 30 years ago. Almost half (42%) of the local

community members have no formal education, making it harder for them to reduce their dependence on logging, encroachment and hunting.

BPF is composed of a core forest zone (12%) surrounded by a utilisation zone (88%) that allows for some economic activities (e.g. farming and non-timber forest product collection). Agricultural encroachment for coffee cultivation is the main threat endangering the persistence of the protected forest. Drivers are much the same as in BBBRNP with poverty, lack of opportunity and weak local forest governance being the most important. Local laws have not been adequately socialised, which has led to confusion over where hunting is permitted and which areas of the landscape can be utilised. In the villages surrounding BPF, 76% of people relied on farming as their primary source of income, and 62% were deemed to be living under the poverty line.

The proposed project tackles these drivers through conservation agriculture and agroforestry programmes, secondary education scholarships, female literacy programmes, provision of essential healthcare, promotion of collaborative governance as well as job creation linked to wildlife reintroduction, SMART patrolling and long-term monitoring.

This project is working closely with the community and local government representatives, academic institutions, and farming and healthcare professionals to improve monetary and non-monetary aspects of wellbeing for ~3,000 women and men, in ways that value and strengthen direct links between human prosperity and ecosystem protection. The project is also contributing to the increase of wild Bornean orangutans and to the maintenance of at least six other threatened species populations.

2. Project stakeholders/ partners

Health in Harmony and sister organisation *Alam Sehat Lestari (ASRI)* – ASRI has closed its operations in BBBR NP and the healthcare component of our project has been discontinued ([Annex 4. 1](#)).

Lampung Provincial Forestry Service: Communication and coordination between YIARI and the Forestry Service (Dishut) during this last period has remained regular and very positive. YIARI and the Forestry Service communicated monthly both directly (face-to-face) and indirectly (via telephone or email).

In early 2023, the head of Lampung’s Forestry Service, Mr Ir. Yanyan Ruchyansyah conducted an unannounced inspection of the YIARI program, which included the mentoring of farmers and also forest monitoring in the core block of Way Rilau. At this time, Mr Yanyan was not accompanied by KPH Batutegi. He did this so that he could observe for himself the progress in the field of the program run by YIARI together with KPH Batutegi. The evaluation findings were very positive and he appreciated the results he obtained from the program. For example, after discussing with the farming group Sumber Makmur and seeing the farming practices that were being implemented, Mr Yanyan commented, that this was perfectly in line with what he had envisaged “Integrated Forest Farming” to be and that this could be used as a model for replication in other areas under the management of the Forestry Service in Lampung. Furthermore, Mr Yanyan was impressed with how effective the use of SMART Patrols had been in reducing wildlife crime in the Batutegi area and also recommended that this could be applied in other areas too.

The Head of the Forestry Service stated that YIARI’s program was very successful and has since invited YIARI to expand its program outside of the KPH Batutegi area. Finally, in May 2023, YIARI and the Forestry Service of Lampung Province signed a Memorandum of Understanding (NK) or MoU with several activities carried out at KPH Batutegi and KPH Way Waya.

Some other activities carried out in collaboration with the Lampung Provincial Forestry Service:

- Forestry Service Lampung was involved in the making of YIARI's 15th birthday video in February 2023.
- Program Evaluation visit from Darwin.
- Conservation seminar at Sumatra Institute of Technology (ITERA).
- Dissemination of the results from the 2022 biodiversity survey at KPH Batutegi during an event held at the Forestry Service Lampung Office in March 2023. The results were also sent to KSDAE (Directorate General of Nature Resources and Ecosystem Conservation).
- Signing of YIARI MoU with Forestry Service Lampung.

Communication and coordination with KPH Batutegi Lampung Province

Patrol activities were co-designed monthly by YIARI's Forest Protection Coordinator and the Batutegi KPH Forest Rangers. There is also a joint review and evaluation process.

Lampung University (UNILA)

YIARI has had an MoU with UNILA since 2015 ([Annex 4. 2](#)). Coordination with UNILA to date has been positive. UNILA students regularly support the programme in Batutegi through internships, research or voluntary involvement in routine activities. In addition, there is also a liaison lecturer from UNILA's forestry department who is YIARI's counterpart. This has been very positive and facilitates monthly communication and coordination with UNILA both in person (coming to UNILA) and online (by phone or Zoom). YIARI also provides annual reports to UNILA as part of the collaboration.

Bukit Baka Bukit Raya National Park Authority (BBBRNPA) - The two most significant meetings that took place during this project period were the semi-annual and annual evaluation of our Collaborative Workplan in 2022 and the agreement on joint activities for 2023 ([Annex 4. 3](#)). From seven areas of work incorporating 17 performance targets, 15 were 100% complete and two were not. The first target that was not fully achieved involved promoting four local university students' interest to undertake research in the National Park. We hosted two students who completed their undergraduate research in the Park (50% complete). The second target that was not fully achieved involved monitoring biodiversity and the threats across the National Park via camera trapping, wildlife census and joint SMART patrolling. There were no SMART patrols in 2022 as the local communities were not supportive of this activity. Therefore, we achieved 60% of our target for the year. Overall, the National Park was satisfied with our joint results and signed off on the 2023 Cooperative Working Plan.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1:

1.1 Run participatory rural appraisals to understand community needs in more depth.

BBBR NP:

This activity has already been completed. However, to ensure that the strategy developed is properly implemented, effective and well-aligned with the communities' current needs and aspirations, regular monthly meetings and gatherings with our nine target communities in BBRB NP buffer have continued ([Annex 4. 4](#)). These meetings are a great opportunity for our Community Development Team to understand the concerns and problems faced by the communities during the implementation of the agreed interventions, find joint solutions and adapt the strategy to better suit their needs.

BPF:

A socio-economic survey was conducted again with the three target farming groups or gapoktan (Sumber Makmur, Wanatani Lestari and Mandiri Lestari) in October 2022 to record annual incomes. A total of 260 respondents were consulted [between 85 and 89 people interviewed per group], 13% of the population (n=2004 people) (Annex 4. 5).

The range of annual income for the three gapoktans was from IDR 12,650,243 to IDR 15,439,383 (~£680-830). The annual income per hectare ranged from IDR 8,622,372 to IDR 9,371,467 (~£460-500). The estimation of annual income in IDR was calculated from the yields obtained from all arable land management activities minus the production costs. The income in rupiah was then calculated based on the value set by the Central Statistics Agency (BPS). This method is standard in rural Indonesia and was used because farmers themselves do not keep a record of their yearly earnings.

Additionally, data on plant diversity and canopy cover in the cultivated lands were collected for evaluation of the agroforestry programme in Batuteги. Stem density ranged between 103 and 150 trees per hectare. According to Indonesian regulation (Permen LHK RI No. 23 of 2021 concerning the implementation of Forest and Land Rehabilitation), a plot is said to be agroforestry if it has at least 400 trees/ha. All the current activities underway in BPF including those centred around the tree nurseries, grafting and planting are to increase stem density to above 400 trees/ha. YIARI aims to initiate, support and guide farmers in their planting activities, but the hope is that once farmers have all the tools and knowledge required they will continue to reach these targets without support. The most popular crops grown were coffee and pepper. Among the Multipurpose Tree Species (MPTS), five local fruit trees (i.e., Jengkol, Durian, Areca nut, Petai and Kemiri) were the most common in the three gapoktans. The average productivity of coffee and pepper was 375 and 39 kg/ha, respectively.

1.2 Provide training resources and support to successfully grow agroforestry seedlings for at least 100 women and men.

BPF:

A total of 4 different trainings and 11 group discussions were conducted with the three gapoktan during this reporting period (Annex 4. 6). Training in avocado grafting was carried out in four different sessions with 48 farmers between January and August 2022. Mr Sakirin the Head of the Wanatani Lestari farming group reported, *“Before receiving the training from YIARI, the grafts in avocado plants attempted by the farming groups in avocado plants had high failure rates. However, following the training, the group’s success in grafting increased significantly.”* Training and assistance in seed sowing and seedling care at two community nurseries were carried out in two sessions in April 2022. Over the past 12 months, two additional independent nursery houses were built at KTH Beringin 4 and KTH Seputih Silam locations, bringing the total number of nurseries to five. In 2022, a total of 3,895 seeds (avocado and area betara) were sown in the five nurseries with an average survival rate of 45%. In 2022, 1,370 multipurpose tree species (MPTS) seedlings were distributed to and planted by 40 farmers from the three gapoktan, bringing the total number of planted MPTS seedlings to 3,161 (involving 150 farmers). The survival rate of the seedlings planted was 56%. Since the start of the programme in 2021, 60 farmers have been actively involved in the agroforestry programme, such as participating in training, group discussions and nursery work. All of these farmers are ready to expand the agroforestry system across 93 ha.

In early 2022, two agro-silvopasture groups were formed in SM gapoktan with the participation of 7 farmers' members. Training in livestock farming were carried out with these farmers where they acquired skills in goat husbandry, animal health care and fermented feed production techniques (animal feed and pen production). Two goat pens with the capacity to hold 8 goats each were built (currently holding 10 animals).

In September 22, training was carried out with 40 participating farmers in organic farming practices (coffee cultivation, liquid and solid organic fertilizers, soil microorganisms' enhancement and organic pesticides). Over the past 12 months, the Community Development Team has continued to provide monthly assistance and mentoring in the livelihood interventions, such as in the nursery construction, the planting of 1,415 plant seedlings and goat husbandry.

To foster innovation and joint solutions for local problems encountered during the implementation of the agroforestry programme, a Field School was launched. The Field School is comprised of theory and practice materials and is facilitated by expert trainers from plantation practitioners (Eko) and a UNILA forestry lecturer (Rommy). The field school practice session consisted of investigating the various problems from field observations, for example, findings of white root fungus, and product innovations to overcome existing problems such as local micro-organism fertilizers and organic pesticides. A total of 40 farmers participated in the first batch of the Field School carried out for 3 days at two different locations. As a result of this training and by the end of 2022, participating farmers had produced 16.7 tons of solid organic fertilizer, 267 litres of liquid organic fertilizer and 57 litres of organic pesticides.

1.3 Provide agricultural training and market systems support to 144 women and men, and

1.4 Develop and implement action plans to improve the production, storing, processing, packaging and selling of selected sub-sectors.

(These two activities are discussed together)

BBBR NP:

Sustainable Farming:

We have continued to provide training and farming mentoring to the four local women-led farmer groups [namely Kerojo Mamal, Kerojo Lacok, Kerojo-Samo, and Beroto Belantong groups] ([Annex 4. 7](#)) aiming to develop sustainable rice and vegetable farming practices in our target communities at the buffer of BBBR NP while increasing yields and income of the local farmers. Overall, the women groups have cultivated around 2 ha of previously "non-productive" land around the Sekujang sub-village applying sustainable sedentary agricultural practices and involved a total of 33 female farmers. Initially, the groups were comprised only of women but due to the demand, men (mainly husbands of existing members) now regularly provide support. The management of the four groups, however, is female-led. These cultivated lands have served as field school demonstration plots for other local farmers. In March 2023, two new farmer's groups have been formed, with 6 additional 6 women from the Sekujang sub-village.

During this reporting period, four nurseries were built, compost and liquid fertilizer production continued, and a hand tractor provided for land preparation ([Annex 4. 4](#)). Training and mentoring was provided for ginger, banana, eggplant, papaya, sugarcane, pineapple and chilli cultivation. During the mentoring sessions, 53 farmers were supported in the implementation of farming practices with SOPs¹ and recording key data on product and amounts planted, yields, income, and issues faced during planting, monitoring or harvesting, if any.

¹ 18 farmers (2 men, 16 women) were provided information on inclusive and sustainable management of suboptimal lands for productive agriculture (pest and disease control, raised beds, water management, planting more densely, use of organic fertiliser and natural practices, no burning, etc), and 35 farmers (2 men and 33 women) were refreshed on using the hand tractor.

An unexpected co-benefit of these activities has been increased social cohesiveness of group members, with increased cooperation in other aspects of their lives such as the purchase of food and drink supplies.

Training in Rubber Production:

Using the innovative process of Radical Listening, we collaborated with experts from our target communities to better understand rubber practices and challenges. Heavy rainfall was identified as a major challenge, as it can both spoil or sometimes wash away the entire harvest.

In partnership with a specialized local enterprise, Kopernik (kopernik.info), we are testing whether a simple rubber tapping rain guard can protect latex harvest during the wet season so smallholder rubber farmers can minimise their losses. We observed that another significant need among the rubber farmers was in the form of agricultural training, more specifically rubber tapping Best Practices.

Before the training, we collected information from 215 smallholder rubber farmers (203 men, 12 women) across 5 sub-villages from Nusa Poring village in the buffer of BBR NP about their rubber plantations (Annex 4. 8).

A total of 31 farmers participated in the Best Practices training and 54 farmers (38 men, 16 women) took part in the two-day rubber rain protection training (Annex 4. 8). Best Practices training involved topics such as nurseries, planting, maintenance, pest control, tapping process and post-harvest processes. At the end of this training, participants had field practices on rubber extraction. Introduction to the protection of rubber from the rain while extracting them from the trees involved the manufacture and installation of tree ‘umbrellas’ and data collection.

Pre and post-tests were carried out to evaluate participants’ knowledge retention of the material delivered to them during the training. Overall, farmers who attended the training in rubber Best Practices, of which 15 participated in pre-post testing, increased their knowledge by 51%² (from 45/100 in the pre-test to 68/100 score in the post-test). The farmers that attended the rubber rain protection training, of which 16 participated in pre-post testing, increased their understanding by 140%³ on average (from 0.5/2 in the pre-test to 1.2/2 in the post-test). An example of a topic relatively unknown to participants was grafting. Participants scored 20% in the pre-test and at the end of the training scored 67% in the post-test. Overall, participants were very enthusiastic about applying their new knowledge in their rubber crops and 21 participants have already been installing and collecting data on tree umbrellas use in their crops. The participants’ feedback was also very good, with 65-71% of them rating the teaching materials and facilitator performance as ‘very good’. Furthermore, 12 out of the 17 workshop participants stated that they want to construct nursery houses and produce and use organic fertilizers in their crops as a result of the training. Plastic umbrellas for the rubber trees were provided to 16 farmers who have committed to installing them and collecting data on their rubber productivity. Two of these farmers have already installed umbrellas on their farms.

In the coming 6 months, YIARI’s Community Development team will continue to provide assistance and mentoring to the trained farmers. Monthly latex yield will be recorded to monitor latex productivity before and after the implementation of the Best Practices in the communities’ crops.

² The following range of understanding represents the level of the farmers’ understanding of the material presented during the training based on 19 questions from 5 topics for pre-post testing: Range 0-33% = low understanding, 34-64% = high understanding, 65%-100% = exceptional understanding.

³ The following range of understanding represents the level of the farmers’ understating of the material presented during the training based on 4 questions for pre-post testing: Range 0 = low understanding, 1 = moderate understanding, 1 = exceptional understanding.

Mr Kian (46 years old) shared “I appreciate Kopernik and Mr Eko (YIARI consultant) for presenting easy to understand materials to support farmers in the Sekujang sub-village. I hope there will also be support in the implementation phase if required.”

The Vegetable Transportation Initiative:

In the second year of the Vegetable Transportation Initiative, YIARI has continued to monitor and provide assistance to the programme. A total of 152 vegetable farmers (94% women) have benefited from the initiative, with 125 of these (7 men and 118 women, [Annex 4. 9](#)) considered main beneficiaries. These members have already increased their family income by 68% (IDR 813.586/month/person [£44/month/person] from IDR 484.841/month/person[£26/month/person]) through using the boat service. A notable achievement of the programme is that some female farmers have transitioned from selling their crops to also re-selling for other farmers from a neighbouring sub-village (Guhung Bajang) and village (Laman Mumbung). The husbands have also become involved in helping their wives with harvesting, cleaning, packing and transporting. Through the implementation of this initiative, 23 farmers (21 women and 2 men) who had never previously sold produce in the market made their first sales thanks to the boat service (8 trips/month).

Mr Lui and Mr Lukas, both loggers and drivers of the original transport system for the local communities to get to the markets or move from one village to another, reported that since they joined the Vegetable Transportation Initiative, they: a) feel grateful for regular income, and b) demand has increased, allowing them to increase service boat trips from four to eight per month, with knock-on positive impacts on their income. They reported that they make more money from these boat service trips than they have ever made previously.

Mr Magat, an elderly farmer, highlighted that before he joined the initiative, he was a full-time logger not just in BBBR NP but also in Papua. He shared that this type of work was very risky. As he got older logging became harder and so he turned to farming. However, his farmland was a 1-2 hour walk from his village and he faced obvious challenges getting his vegetables to market before they spoiled. He thus contemplated returning to logging, to provide for his family. When he heard about the Vegetable Transportation Initiative, he was sceptical but open to trying it. He has been very pleased with this initiative and reported that because of it he now enjoys regular income without the kind of risks he faced while logging. He hopes this initiative will continue for the foreseeable future.

Sugar Processing Programme:

The Sugar Cane Processing programme aims to facilitate the processing of brown sugar by providing two machines, training and management guidance to enrolled farmers. This initiative has resulted in additional income for 57 families ([Annex 4. 9](#)). However, the number of participants and amount of sugar produced decreased over the past year when compared to 2021 due to a mechanical fault with the machine in Sekujang. The parts were sourced and replaced in early March 2023. On 23rd March, a meeting was held with a further 33 farmers, of which 30 have committed to joining the programme as soon as it resumes in April 2023. As a follow-up plan, the communities from these (sub) villages will be mentored to plant sugar cane sustainably in demonstration plots.

Eleven women from the Nanga Dawai sub-village were still actively involved in the Sugar Processing Initiative throughout this reporting period. Between January 2022 and March 2023, they produced a total of 50 kg of sugar, generating an income of IDR 2,429,000 (£131).

1.5 Train 20 community members and 6 government officials in wildlife monitoring.

In this reporting period, training was carried out in Hornbill Conservation and Survey techniques, which included topics such as hornbill ecology in Indonesia, feeding and nesting behaviour, habitat use and point sampling methods. A total of 14 YIARI local staff, BBBR NP officials and academic students took part in the training. Pre and post-tests were carried out to evaluate participants' knowledge increase and retention. On average, participants increased their knowledge of hornbill ecology and survey methods by 65%, from 43% in the pre-test (range 27-73) to 73% in the post-test (range 40-93). Additionally, 18 YIARI local staff was trained in plant identification and 4 people were trained in biodiversity conservation (i.e., ecology introduction, wildlife monitoring using camera trap and direct wildlife monitoring per taxa).

1.6 Support community members to take part in and benefit from employment in the release and long-term monitoring of 30 orangutans.

To date, YIARI has employed 59 full-time community members from the buffer of BBBR NP, from which, 32 are full-time wildlife monitoring staff, two educational and outreach staff, five Community Development staff, one veterinarian, five orangutan keepers (on a rolling system from Ketapang), one logistical officer, one camp manager, one camp coordinator, one GIS officer, two camp cooks, one finance officer, one data officer, two public relations officers, two motorised boat drivers, two drivers. We also employ an additional >30 daily staff who aid with logistics and trail clearing.

1.7 Run literacy and computer courses for 100 women and 120 children

BBBRNP:

The literacy level of children from grades 1-6 of primary/elementary school (6–12 years old) across eight sub-villages from the Mawang Mentatai and Nusa Poring villages was deemed very low in an assessment completed in late 2021. Low literacy triggers low self-confidence in learning and early school drop-outs. This was the case for at least two children, participating in our Informal Literacy Programme. These children who leave school early will often join their parents' logging-based livelihood activities. Therefore, since January 2022, YIARI Education Team has provided supplementary literacy classes outside school hours to the children from these villages.

We have continued to apply an integrated educational system that aligns environmental education with basic skills important for personal and career development. We have a focus on providing high-quality education in Informal Literacy, Bible Literacy and Computer Literacy. Computer literacy in particular greatly increases employability and access to a wider range of career opportunities which can lessen dependence on logging and hunting activities.

Classes have been running monthly with a duration of 20 days of activities per sub-village, focusing on increasing the literacy levels of the 123 children assessed as illiterate or insufficiently literate. In the previous assessment, 65 children were able to read and write fairly well. These children have also attended literacy activities to further advance their abilities while supporting the less advanced students. Hence, in the first quarter of the programme, a total of 188 children from seven villages and sub-villages participated in the literacy classes. In the second quarter, the

number of children increased to 223 as two new sub-villages joined. In 2022, we observed an increase of 78% in the children reaching middle and advanced literacy levels. The number of children that could read and write well rose from 67 in April 2022 to 94 in December 2022. In comparison, there were 70 children with minimal reading and writing abilities in April 2022 and this number decreased to 45 by December 2022. In 2023, we retested the 122 children (68 boys and 54 girls) who continue to be enrolled in the programme. Pre and post-tests carried out in February and March have already shown that 11% more children can now read and write, while 26% are no longer illiterate or insufficiently literate.

The Adult Informal Literacy Programme was initiated in April 2023 through gatherings with 26 women from Mawang Mentatai village. Our pre-assessment recorded all the women as having a basic literacy level. We also work with a further 13 women from the Sekujang sub-village under the banner 'Bible Literacy', via their Bible Studies. These women are slightly more advanced in their literacy skills. Working with the local priest, we encourage women to want to increase their ability to read and understand the Bible with a focus on nature and environmental issues.

Despite measurable progress our sign-ups are still relatively low. Lots of women still spend most of their time tending to their farmlands, their children and/or their homes. The other barriers we face with implementing these activities are a) lack of internal personnel—we only have two full-time education staff and two scholarship recipients available to implement these activities and, b) the distance, logistics and related costs of moving between villages.

Computer Training

Computer lessons have been incorporated into school curriculums as extra classes but implemented outside of formal school hours. In addition to the children, training has also been carried out with a group of local women. In 2022, 95 Elementary and Junior High School students and 14 women from four villages and sub-villages completed the computer literacy training. The training includes topics on basic computer skills and the use of Microsoft Office (Word, Excel and PowerPoint) software. Currently, a total of 36 school students (23 boys and 13 girls) from five sub-villages are enrolled in the computer classes. A pre-test was carried out in February with all students scoring insufficient knowledge. Post-test was carried out in March in which 58% of the students scored level 'C' and 42% level 'B' in computer skills⁴.

Computer classes were also continued to be offered to adult women (i.e., students' mothers) this year. In this past quarter, three women from Mengkilau village have enrolled in the classes. Similarly, to the children, the adult women also scored insufficient knowledge in computer skills at the pre-test run in February. In March, all three participating women improved their levels to a 'B' score.

For a complete list of participants and test scores of both our literacy and computer training programmes, please, refer to [Annex 4. 10](#).

BPF:

In BPF, YIARI has also continued to support the *Taman Baca* or Reading Clubs as an effort to increase conservation awareness and literacy in local young children. In this reporting period, two Reading Clubs have been supported by YIARI namely *Taman Baca Jalosi Sanak Negeri* and *Taman Baca Gubuk Pelangi Literasi*. On average, 3 meetings were carried out every month (ranging from 1 to 4 meetings) with 10 to 90 children participating in each meeting. Activities include book reading, storytelling, poetry declamation, screening of educational videos and

⁴ Local-level computer skill assessment tests were used to measure how the participants are developing computer and information literacy to support their capacity to participate in the digital age. The Grading system: A=exceptional understanding (76 -100%). B=moderate understanding (51-75%), C=low understanding (26-50%), D= limited understanding (0-25%).

practicing of traditional and creative dance. All activities are integrated with environmental topics. Participation has been enthusiastic with good retention of knowledge ([Annex 4. 11](#)).

1.8 Award scholarships for secondary education to 20 children

A total of 31 children have received scholarships for both junior and senior high school, three recipients dropped out for various reasons and 11 recipients graduated from senior high schools in July 2022 ([Annex 4. 12](#)). We are proud to announce that seven (six girls and one boy) of the 11 scholarship students that graduated in July will be attending university. Currently, we have 17 recipients active within the programme. All former scholarship students are now being mentored to become Education and Environmental Ambassadors in their villages.

A ‘Training of Trainers’ activity was carried out between the 16th and 29th of May 2022 at YIARI’s Sir Michael Uren Learning Centre in Sungai Awan with 11 of the scholarship students that graduated last year. The students received training in biodiversity, protection status, habitat types, community empowerment, self-awareness and achievement, computer and English lessons, video, photography, and financial accounting, to name but a few. The students have committed to dedicating their time regularly in their villages carrying out educational activities and environmental actions. Some of the activities already carried out by the alumni are mentoring reading and writing practices; teaching computer skills; and, carrying out conservation and environmental awareness actions with other school children in their villages.

So far, our scholarship programme has had low drop-out rates and high performance (grades above 75%) with engagement in extra-curriculum activities. This programme has built positive relationships with local communities and cemented YIARI’s local reputation as a trustworthy partner. The trust built is fundamental in creating engagement in conservation activities.

KAHIU Scholarship

A previous survey carried out by YIARI showed high secondary school drop-out rates leading to logging-based livelihoods. In this context, and as part of our scholarship programme, YIARI has launched an innovative programme targeting out-of-school youth in an array of different fields important for their career development and entrepreneurship which would divert them from carrying out illegal activities within the national park. Thirty different topics/skills were included in the training, such as computer, communication and writing, farming, construction, and environmental education.

The first intake of students was in October 2022 with 17 youths with Junior and Senior High School education backgrounds, seven of which had been previously active as illegal loggers. The remaining 10 youths were unemployed from Ulak Medang Village, which borders a production forest area in Ketapang Regency. The Training was provided for a total of 4 months at YIARI’s Learning Center in Sungai Awan Kiri.

YIARI has continued to assist the graduated youths by providing special mentoring on sustainable farming at their villages’ demonstration plots (see Activity 1.3 and 1.4). The Kahi youth have learned to prepare the land for cultivation, build a nursery, and take care of the crops. The youth has also learned to build huts and storage houses at the demonstration plots.

By observing livelihood interventions in their villages and gaining relevant skills, the trained youth are becoming empowered to initiate their own businesses. As an example, after seeing the catfish spawning process in a small aquaculture farm assisted by YIARI while on a field trip at the Muara Juoi sub-village, a Kahi student has initiated the construction of a small pond close to his house in the Sekujang sub-village. His initiative has attracted the interest of other village members to initiate their own fish farms as well.

1.9 Provide healthcare support to ~2,000 women and men.

The healthcare component of this Project has been discontinued due to our Project partner ASRI closing its operations in our target area in BBR NP as explained in the Change Request submitted in February 2023. Although we will not continue with the healthcare assistance with communities around BBR NP until the end of the Project, we have already exceeded our target of at least 2,000 people who had access to low-cost healthcare by September 2022 [Indicator 1.5: By Q4 2023, at least 2,000 women and men receive low-cost healthcare in BBRNP]. In 2022, about 2,101 received low-cost healthcare from ASRI in BBR. Since the beginning of the project around 3,325 people have received healthcare assistance from our project partner ([Annex 4. 1](#)).

Output 2:

2.1 Facilitate community meetings and provide support in the drafting of community plans.

BPF:

This activity has been completed during this project first year (2021-2022 period). The existing “*Anggaran Dasar/ Rumah Tangga (ADRT)*” roughly translated as “Articles of association for households” was discovered and subsequently adopted as the community farming regulations. Socialisations with BPF farming groups regarding the ADRT were conducted.

In addition, the ‘Long-term Plan for Forest Management’ (Rencana Pengelolaan Hutan Jangka Panjang 2023-2032) with the local government (KPH) and community farmer groups that YIARI supported the development during the last period is still being finalised by the Lampung Forestry Service. Included in this long-term plan will be the demarcation of Batutegi’s Core Block, Gapoktan permits, habitat protection (including SMART Patrols) and biodiversity monitoring ([Annex 4. 13](#)).

BBBR NP:

As we have reported previously, since April 2021, YIARI has been facilitating the draft of Village Regulations on Environmental Protection and Management along with the Nusa Poring Village Government and a group of village members. Nusa Poring village, at the buffer of BBR NP, is crossed by the Mentatai River where riparian vegetation is being cleared at a high rate causing landslides along the riverbanks, compromising local livelihoods and the health of the river ecosystem. Meetings for the draft of the Village Environmental regulations (*Peraturan Desa/PerDes*) were held with the Nusa Poring Village Head and a Community Working Group formed in March 2022 with five village heads, 10 local community members and three YIARI staff (of which two were from the village). The working group was trained by YIARI’s Community Development staff to understand and identify environmental and social problems and potential solutions. After the training, the Village Head office provided its approval within six months and the draft of the PerDes was initiated by the Working Group. In August 2022, a total of 27 village members participated in a meeting for the draft of the PerDes, eight main environmental issues in the village area were identified at these meetings. In September, the Working Group met again to formulate solutions (both sanctions and programs) for the main issues encountered. In October, the final draft was agreed upon and a schedule for deliberating the PerDes was made. Since then, the YIARI team has been coordinating with the Head of Nusa Poring Village for consultations with the Legal Bureau in Pinoh, which was scheduled to happen in April 2023. Although the whole process of passing an environmental regulation in the Nusa Poring area has taken a long time, it is important to acknowledge that this will be the first environmental regulation in the region, which has been discussed, produced and drafted under the leadership of the community. If successful, this bottom-up approach can serve as a model for

many villages and communities in the region and will benefit directly 468 people from the village ([Annex 4. 14](#)).

2.2 Facilitate a series of awareness-raising meetings to clarify where the BPF core zone boundary sits and what will be used to demarcate it.

The participatory mapping with KPH and the farming groups concluded in the first year (2021-2022). The proposed new boundary has been sent for approval to Dinas Kehutanan Lampung Province and is currently being evaluated by their office. In [Annex 4. 15](#), we provide a map with the revised core zone border that has been agreed upon by the stakeholders and submitted to Dina Kehutanan for the final approval.

Between February and November 2022, boundary patrol has been carried out at the BPF core zone aiming to verify in the field the boundary conditions and sites that are still being used by the farmers. This activity will further support the renewal and confirmation of BPF core zone boundary and assist in the forest management and planning. In the patrols it was identified several unsuitable arable lands along the boundary, both entering the core forest block and outside this area.

Results of the participatory mapping and boundary patrols has been socialized to the local community in order to raise their awareness about the position of the BPF core zone boundary and the situation found in the field. Between May 22 and March 23, a total of 83 people from the three target farming groups were socialised at six different locations.

2.3 Demarcate the BPF core zone boundary with natural barriers every 50 metres.

The demarcation of the BPF core zone boundary has begun. The boundary is being demarcated using beringin tree (*Ficus benyamina*). In Indonesian traditional culture, it is believed that the area around the beringin tree is haunted and should be avoided. The fruits of the beringin tree are also a popular food source for birds and primates.

A total of 388 trees have now been planted spaced 30m apart ([Annex 4. 16](#), see photo of Ficus tree). Nearly 20% of the total boundary has now been marked. The total linear distance marked out by the trees is around 8km from a total of 42 km of border. In addition, seven information boards have been erected along the border of the BPF core zone at strategic locations such as along trails, rivers and access points ([Annex 4. 16](#)).

2.4 Provide SMART patrol training for 45 tenant farmers.

During the 2021-2022 period, 27 farmers were provided with SMART patrol training. No new training has been provided during the last project period, but additional SMART patrol training is scheduled for 18 April 2023 with local youth community groups.

2.5 Support monthly SMART patrol activities.

From April 2022 to February 2023, a total of 93 patrols were carried out, totalling 527 hours, and covering 231 km. There are 39 people active in the patrol teams: nine forestry police officers (polhut), 13 YIARI team members, 17 members of farming groups and the wider local community. Overall, signs of 59 illegal human activities (1.5 sign per patrol day) and 399 wildlife (4.29 sign per patrol day) were recorded ([Annex 4. 17](#)).

The patrols are currently still led by YIARI; however, the project is working towards *Pamhut* (*Pengamanan Hutan*/Forest protection group) taking on an increasingly significant leadership role

overtime. According to the farming regulations (ADRT) —the gapoktans have to form Forest Protection groups (*Pamhut*). They are allowed to farm the land, but they also have to help protect the area. The Sumber Makmur gapoktan has already established a Pamhut with 9 community members and KPH officers. The Wanatani and Mitra Jaya gapoktans have nominated 3 people to form a Pamhut. The Mandiri Lestari gapoktan is, however, resistant to form a Pamhut. A common issue among the gapoktan related to the formation of Pamhut is the lack of time available for patrols given how time-consuming farming activities are.

Patrols have been carried out in three main resort areas in BPF: Way Sekampung (78 days, 169km, 391 hrs), Way Waya (40 days, 130km, 209hrs) and Batulima (20 days, 60km, 102hrs). Number reported for the full 2022 year.

The location of the patrols in the Batutegi KPHL area in 2022 focused on the Way Sekampung forest area, which includes 2 resorts, namely the Way Sekampung resort and the Way Waya resort. Patrols were also carried out in Batulima Resort and Banjaran, especially the Rindingan forest block, as a follow-up response to reports received of severe agricultural encroachment in these areas.

In Way Sekampung, very few illegal activities were identified. Rindingan was the area where the highest number of illegal activities was encountered. Therefore, YIARI is looking to expand community work in Rindingan. Hunting of wildlife was the most commonly detected illegal activity during the last reporting period (n=21), followed by forest encroachment (n=18).

Patrol findings are reported monthly to the Batutegi KPH office. Whenever possible, actions are immediately taken on-site when evidence of illegal activities within the Protected Area are found. Actions may include the destruction of tools used to perpetrate the illegal activity, confiscations, verbal and written warnings and documentation for future prosecution of the offenders. As a result, three illegal loggers encountered in the forest were arrested by the Tanggamus Police.

Output 3:

3.1 Conduct socio-economic and wildlife consumption surveys and compare them to 2019 baselines.

A socio-economic survey with the focus on hunters and loggers was carried out in August 2022 and data compared to the previous survey carried out in July 2020 ([Annex 4. 18](#)). There was an overall reduction by 13% in the number of hunters and loggers across the nine target sub-villages surveyed in Nusa Poring and Mawang Mentatai areas. In 2020, a total of 212 local people were identified as hunters and/or loggers. In 2022, this number had dropped to 185 people. The number of hunters has reduced more dramatically (49%). In 2020, there were 39 hunters in comparison with 2022 when 20 local people were identified as hunters. Regarding age categories, in 2020, 12 youth (12-17 years old) were involved in hunting and logging activities. In 2022, this number dropped by 66%, with four youths still carrying logging in Mentatai area (namely in the sub-villages of Beloyang and Pintas Kemantar).

Data collection on wildlife consumption was carried out through four Focus Group Discussions (FGDs) held in April 2022 in Beloyang and Guhung Bajang sub-villages where questions regarding wildlife consumption, domestic animal health, human health and zoonoses were discussed with a total of 16 community members ([Annex 4. 19](#)). Animals hunted in both villages were similar (e.g., deer, monkeys, squirrels, wild boars, hornbills, etc). All participants admitted they consume bush meat, even when the meat is not fresh. Methods of hunting include shooting, snares, traps and machetes. Through the discussions in the groups, it was clear that the communities were not aware of the risks posed by zoonotic diseases. Participants admitted that they had heard about zoonosis and that they know it can be contagious. The community often associates diseases that arise in their villages with mysticism and ignore the fact that the emergence of diseases can be caused by infections from the animals they consume. The

community as a whole admits that the meat, they obtain from snares is sometimes not fresh due to snare visits happening several days apart. However, the participants also claim that they have begun to abandon their hunting habits for several reasons, including increasing difficulty to trap game animals in the forest, fear of being caught hunting within the National Park borders, also thanks to YIARI's awareness raising efforts around the illegality of hunting.

3.2 Report back the results of wildlife consumption surveys to communities.

After the survey was carried out, four FGDs under the umbrella of Zoonosis were carried out to report the results and discuss alternatives. A total of 26 representatives from three different sub-villages, Juoi, Sekujang, and Pintas Kemantar in the buffer of BBR NP participated in the meetings.

During these events, the level of knowledge discussed showed that the community was already familiar with the term zoonoses and its meaning, especially in the sub-village of Sekujang where, according to the community, our Project partner ASRI held multiple outreach events related to this issue. However, in reality, there are still many people who do not think they can be affected by zoonoses. For example, when domesticated pigs die from disease, almost all local participants claim they throw them into the river to decompose—the same river where they wash their clothes, clean their vegetables, brush their teeth etc.—and some still consume the meat, even when it appears to be rotten. Local people in this area often attribute human diseases arising in the community as related to 'taboos' or other 'cultural' matters. They are unlikely to attribute the emergence of diseases to the treatment and consumption of 'fresh' or 'rotten' bush meat. Rotten wild boar meat is often processed into a food called *katok* and is considered more delicious than fresh meat by some members of the community. Game meat that is no longer fresh is also sometimes smoked or smoked before being brought home to be cooked again with vegetables.

During the next reporting period, we will explore the challenges and opportunities for addressing a One Health and One Welfare approach that emphasizes interdisciplinary collaboration and the inextricable nature of human and animal health and disease. We plan to use a system dynamic approach to better understand the complex interconnectedness between wildlife utilisation, consumption and human health. The results will help to identify leverage points for suitable interventions and contribute to the development of a locally-appropriate One Health and One Welfare strategy for our nine communities. Data required for the system dynamics analysis have been collected and the analysis will begin shortly focussing on i) wildlife hunting, ii) examining human health and the conservation relevance of wildmeat [and livestock] utilisation and consumption and iii) livestock health and welfare.

The implementation of the One Health and One Welfare approach is expected to benefit our communities through reduced risk of zoonotic disease transmission, with potential impacts on human and wildlife health. By engagement of multi-sectors, our project will largely benefit our target communities by safeguarding their future, health and livelihoods, consequently safeguarding the wildlife populations of the area.

3.3 Hold awareness-raising sessions in collaboration with religious leaders and/or village heads to clarify which species can and cannot be legally hunted.

BBBR NP:

YIARI has also continued to work with youth groups and traditional leaders in forest-edge communities to raise conservation awareness. In the Mentatai area, YIARI has continued to collaborate with local priests in Nusa Poring and Sukujang sub-villages (with which YIARI has already signed an agreement) for the dissemination of conservation messages in the Church

gathering. As a result, information on zoonosis related to hunting and wildlife consumption has been shared with 39 villagers (8 men and 31 women) by the priest from Nusa Poring through religious messages and a billboard has been provided and installed with a verse that conveys a conservation message. Fourteen village members are active in church services who have now shown interest in disseminating conservation messages across their villages.

Additionally, two meetings were held with youth groups in the Sekujang sub-village to build trust and obtain input from the youth on what activities they are willing to carry out. Seventeen people (11 girls and 8 boys) participated in the meetings. As a result, these youth are willing and interested in being involved in conservation activities. The group of youth have already carried out Clean-Up Days events in their village and installed waste bins made out of bamboo ([Annex 4. 20](#)).

3.4 Hold sessions with boy scout groups, local youth groups, and women and men in target communities to explain how best to make use of ecosystem services without compromising them for future generations.

BBBR NP:

YIARI has continued to carry out the Afterschool programme with children in our target villages. The classes and activities provided integrate environmental education with drawing, colouring, cleaning up activities, film screening, storytelling, reading and games. This programme aims to make educational activities a fun learning tool for them to increase their interest and knowledge of conservation and the environment. During this reporting period, over 170 children participated from 6 sub-villages participated in the educational activities with an average of 26 children for each activity carried out. Additionally, YIARI has continued to carry out several other awareness-raising activities and events with the broader community ([Annex 4. 12](#)).

BPF:

Educational and awareness-raising activities in the buffer of BPF have been carried out through the assistance provided to the youth conservation groups and local Reading Clubs (see Activity 1.7), as well as by supporting regional educational events and the formation of a conservation youth forum. In 2022, over 430 youth members of our target, local communities were reached and engaged in these activities ([Annex 4. 11](#)).

One of the conservation-based youth groups being assisted by YIARI is the Saka Wanabakti (scouts) KPHL Batutegi. To maintain the continuity and development of this group, several activities have been facilitated including the recruitment of new members, regular training and collective activities.

The recruitment of new members was incorporated into visits to schools and by providing presentations and materials to introduce the profile of the Saka Wanabakti and the routine activities carried out to new children. This also featured an introduction to the Batutegi forest and its biodiversity and conservation potential. Secondary school level students are the target recruiters. As a result of these activities, 32 children were registered to become a member of the group.

Ten group activities were also carried out during the last reporting period. Activities included thematic discussions, presentation of material on grafting saplings and studies of honeybees, art performances, training on cell phone photography. Conservation messages and environmental education were incorporated into all the activities.

The Saka Wanabakti also participated in collective 2 days awareness raising events with another youth group (Karang Taruna), and members of the Wana Rindingan gapoktan. These activities

were also attended by the Lampung Province Forestry Service, KPH Batuteги, local police (*Bhabinkamtibmas*), and Lampung University students. A total of 100 people participated in the event.

Between the 10th and 15th of November, YIARI supported the Conservation Literacy Contest (LCT) held for the entire Tanggamus Regency in collaboration with the Lampung Provincial Forestry Service (KPHL Batuteги, KPHL Pematang Neba, KPHL Kotaagung Utara), and the Government of Tanggamus Regency. Additional technical support was also provided by the regency's Community Reading Club Forum, Tanggamus Electric Power company and other regencies' private companies. A total of 120 school students from 25 different schools participated in the event. This was the first event of this kind to be held in Tanggamus Regency. The competition had several stages. In one phase, the students had to learn more about forest areas, biodiversity and conservation efforts carried out in Batuteги. That was a great opportunity to raise awareness among school kids from several regions. The competition winner received as a prize a field trip to the Batuteги forest monitoring post in which they learned more about biodiversity in forest, wildlife monitoring through camera traps, nature and wildlife photography, and ecoprints. The event was deemed a great success with high student engagement and learning.

Furthermore, as an effort to build a collective youth movement across Lampung and establish a conservation youth communication forum in the region, several activities have been carried out to approach various communities and initiate contact with them. In 2022, there are 14 youth communities that have been inventoried and involved in five collective activities, such as through conservation camps, Lampung Forest Festivals, and religious events. A total of 248 youths participated in these activities. The level of engagement of the youth was satisfactory, however, to get to the stage of forming a communication forum, many things still need to be considered, such as a better understanding of the problems and needs faced by each community.

Output 4:

4.1 Reintroduce and monitor 30 Critically Endangered Bornean orangutans in BBR NP.

During the past 12 months, using a set of criteria regarding their age, health status and behavioural repertoire formulated from their pre-behavioural data, we selected a further nine orangutans (two females and seven males) for reintroduction into the Mentawai Resort of BBR NP ([Annex 4. 25](#)). Using our phenology data, we chose the two most suitable periods and sites for the reintroductions. The first reintroduction took place on the 28th of June (n=5 individuals) and the second on the 13th of December 2022 (n=4 individuals). This brings the reintroduction/release numbers in BBR NP to 69 orangutans (33 males and 36 females, not including the wild orangutan births) since the beginning of YIARI's Reintroduction Programme in BBR NP in 2016 —an average of 10 orangutans reintroduced per year. Additionally, we have now recorded five wild-born orangutans from reintroduced females (three females [Dara, Lusiana and Langit] and two males [Surya & Bumi]).

After reintroduction, the reintroduced orangutans are followed by the experienced community-based field team from when they wake up in the morning until they go to sleep at night. In addition to behavioural data, orangutans' movement patterns are also monitored by the field team. The survival rate of our reintroduced orangutans since the beginning of our programme in 2016 is 97%, with only two confirmed deaths so far due to snake bites. Whenever needed, our medical team intervened to rescue, translocate, and treat injured orangutans or orangutans in danger. No medical interventions were needed this year. Since the beginning of the programme, six medical interventions were carried out to treat released orangutans found ill in the forest.

3.2 Progress towards project Outputs

Output 1. By 2024, the well-being of ~3,000 impoverished women, men and children has improved through better-managed agroforestry systems, access to education (especially women and children), healthcare and employment opportunities associated with wildlife reintroductions and monitoring.

Since the beginning of our Project, a total of 4,512 people⁵ from our target communities have accessed one or several of the following opportunities to improve their wellbeing: sustainable livelihood opportunities, formal and informal education, healthcare and employment ([Annex 4.21](#)). This exceeds our overall target of 3,000 people in 50% (Output 1).

1.1.

A total of 2,560 agroforestry seedling have already been planted in the multiple-use zone of BPF since the start of this programme (1,145 in 2021 and 1,415 in 2022) involving 60 farmers across 93 ha. This represents 85% of our target of 3,000 seedlings (Indicator 1.1). In addition to the seedlings planted, the 60 assisted farmers in Batutegi have now a deep understanding of good agroforestry practices, such as seedling sowing in nurseries, grafting, and production and application of organic fertilizers. This past year, a Field School Programme has been launched to further assist the farmers to find practical solutions to the challenges encountered locally during the application of the agroforestry best practices. This programme has been received with great enthusiasm from the farmers, who has been active in identifying the problems sources and possible solutions (Activity 1.2).

1.2.

Currently, YIARI is employing 52 full-time staff members from our target communities to carry out our programme activities in BBBR NP (Indicator 1.2). Additionally, over 30 daily workers from the local communities are hired for each of our reintroduction events (twice every year). Twenty-four new jobs have been created during this project period (Activity 1.6).

1.3.

YIARI's literacy programme has already assisted over 445 children (355 children in BBBR NP and ~90 in BPF) and 26 adult women to improve their reading and writing skills. Additionally, computer literacy classes have already benefitted 131 children and 17 adult women from BBBR NP buffer (Activity 1.7). Together, both language and computer literacy programmes have improved the capacity of 476 children and 43 women from our target communities (Indicator 1.3).

1.4.

Currently, there are 17 active recipients of the scholarship programme. Since the beginning of the Project, 28 children from BBBR NP buffer have been assisted to pursue secondary education, from which 11 have already graduated from High School last year (Indicator 1.4). Additionally, this year YIARI launched the KAHIU scholarship programme, aiming to divert out-of-school youth from carrying out illegal activities in the forest by building their capacity in an array of important skills for their career development and entrepreneurship. This past year, 17 youth were

⁵ 4,172 beneficiaries in BBBR NP (3,660 adults and 512 children) and 240 beneficiaries in BPF (250 adults and 90 children). BBBRNP: 52 local staff members, 254 community development beneficiaries (95 men and 159 women), Education programme [children: 355 literacy, 26 scholarship, 131 computer training; women: 26 literacy, three computer training], and 3,325 healthcare beneficiaries. BPF: 250 farmers in agroforestry, farming training and agrosilvopasture; 90 children in literacy (Taman Baca).

beneficiaries of this programme, 7 of which were ex-illegal loggers in BBBR NP. Therefore, a total of 35 youth from BBBR NP buffer have already received our scholarships (Activity 1.8).

Through our educational programme, we could already see an impact on the number of dropouts. In 2021, 34 youth from our target villages dropped out of school and lack the basic skills necessary for pursuing careers other than illegal loggers. In 2022, after the implementation of our programme, this number was reduced to 7 youth.

1.5.

The healthcare programme has been discontinued (Activity 1.9), however, we had already exceeded our beneficiary target in 2022. Since the beginning of the Project, ca. 3,325 people received healthcare assistance from our Project partner ASRI (Indicator 1.5).

1.6.

A total of 159 local farmers were trained in sustainable agricultural practices (32 men and 73 women) and rubber production (38 men and 16 women), representing 88% of our target (Indicator 1.6). Training was accompanied by field practice and mentoring activities. Sustainable agriculture mentoring resulted in 450 different activities with the farmers in 2022, including training, field practice and group discussions. Implementation of good practices in rubber production will be assisted by the Community Development Team over the following months (Activities 1.3 & 1.4).

Output 2. By 2024, communities feel empowered and more embedded in local natural resource governance through joint patrols with government authorities.

2.1

In BBBR, Nusa Poring Village Environment Regulation (PerDes) has been co-drafted by the active involvement of 24 community members through 49 activities/meetings carried out in these past 12 months. The draft of the PerDes has been approved by the Village Head and submitted to the Legal Bureau in Pinoh for revision. In BPF, existing village regulations were discussed with the community through group discussions and informal gatherings, and the 'Long-term Plan for Forest Management' is in the process to be finalized by the Lampung Forestry Service (Indicator 2.1, Activity 2.1).

2.2

Nearly 20% of the total boundary of the core forest block of BPF has now been marked (Indicator 2.2 and Activity 2.3). Between May 22 and March 23, a total of 83 people from the three target farming groups engaged at six different locations and now understand where the boundary of the core forest block sits (Activity 2.2). There are an estimated 200 farmers working along the border of the Core Zone, therefore, the percentage of farmers that are currently aware of the border's position represents ~42% of the total.

2.3

The joint community patrol team, comprised of 39 members (17 of which are local farmers and nine forestry police officers) has continued to carry out regular monthly patrols in BPF (Indicator 2.3). The number of patrol days ranges from 6 to 20 days or an average of 11.5 days per month. Illegal activities in the forest have reduced by over 40% (Activity 2.5) as compared with pre-project levels.

Output 3. By 2024, increased local community awareness of ecosystem services, biodiversity values and risks contribute to better natural resource management.

3.1

We have now completed the wildlife consumption and health survey with a sample of two of our target communities (Activity 3.1). Results of the survey were reported back and discussed with 26 representatives from three different sub-villages, Juoi, Sekujang, and Pintas Kemantar in the buffer of BBBR NP during four focus group discussions (Indicator 3.1 and Activity 3.2).

3.2

A survey with 232 farmers from the three target gapoktans in BPF was carried out this past year. As a result, 98% of the interviewed farmers (n=228) reported to know that hunting is prohibited within the Batutegi forest core area (Indicator 3.2b). Ninety-nine percent of the respondents (n=229-230) also said that they know that logging, land clearing and land burning is illegal in the area. Regarding their willingness and attitudes, 99% of the respondents said to avoid hunting and land clearing within the forest core zone. Additionally, 52% (n=121) said they are willing to report illegal activities observed and 10% (n=24) said they are interested in becoming members of the Forest Protection groups (*Pamhut*) ([Annex 4. 22](#)).

3.3

One group of young scouts (Saka Wanabakti Batutegi group) and one group of religious youth in Sekujang sub-village (BBBR NP) have been active in each of our target landscapes (see Activity 3.3). These groups have actively involved about 47 youth in conservation learning, campaigning and action (Indicator 3.3). Additionally, efforts have been made for the establishment of a conservation youth forum in Batutegi. A total of 15 youth groups were already engaged in conservation activities, totalling around 248 youth from neighbouring villages. Whatsapp groups to support communication, coordination and joint actions are in use (see Activity 3.4).

3.4

In this past year, at least 747 children and 95 adults (39 women) took part in biodiversity and ecosystem service awareness raising events (see Activities 3.4, 1.7 and 1.8). In BBBR NP, the number of school children increased from 137 in 2021 to 317 in 2022, while the number of adults increased from 30 to 95. A survey was carried out in 2022 with 208 participants (159 children and 49 adults) of our educational and outreach events in BBBR NP to evaluate their knowledge. The understanding of conservation topics was predominantly moderate among children (i.e., 49% scored B) and adults (i.e., 50% scored B), with only 7% of the children having no knowledge of conservation topics. Regarding environmental appreciation (care), 68% of children and 94% of the adults said to have a high appreciation of the environment, with only one child saying that he/she did not care about the environment ([Annex 4. 23](#)).

In Batutegi, more than 430 school children have been exposed to environmental material at through the integration of conservation lessons in educational events. Additionally, BPF has been a hub for youth and students to learn more about the forest and its biodiversity and practice their learning (Activity 3.4). Over the past year, 56 volunteers took part in YIARI's wildlife monitoring and educational activities, such as camera trap surveys, school outreach and children's education at the local Reading Clubs.

Output 4. By 2024, the Bornean orangutan population in BBRNP increases its viability and resilience.

4.1

In the past 12 months, nine orangutans were reintroduced during two separate events. This brings the reintroduction/release numbers in BBR NP to 69 orangutans and an increase of the orangutan population since the start of the programme by 35% (i.e., 70% of our target, Indicator 4.1).

3.3 Progress towards the project Outcome

Outcome: By 2024, over 200,000 ha of forest and target species are protected through sustainable, locally-led and scalable livelihoods strategies, as well as stronger governance, benefitting ~3,000 women, men and children.

0.1 Ten percent of households (~300 women and men) by Q2 2023 and 20% of households (~600 women and men) by Q1 2024 report a 10% increase in income (average income is 1.1 million IDR in BBR main villages and 3 million IDR in Sumatra). [In Mawang Mentatai village 83 households [79%] are poor, in Nusa Poring village 116 households [79%] are poor.]

In this reporting period, YIARI Community Development Team continued to support three main sustainable livelihood opportunities in our nine target communities at the buffer of BBR NP: 1. Vegetable Transportation Initiative (*klotok*); 2. Sugar Cane Processing Programme; and 3. Organic farming mentoring; as well as the agroforestry and agrosilvopastoral programme in BPF.

In BBR NP, 15% of the people in our target communities have participated in sustainable livelihoods initiatives, with approximately 254 direct participants of which 95 are men and 159 are women (a 63% female representation)⁶. Additionally, 29 (11%) of the beneficiaries are loggers and 17 (6%) are ex-loggers ([Annex 4. 4](#)). Through the Vegetable Transportation Initiative, 125 main beneficiaries (7% of the households) saw their family income increase by 68% [from IDR 484,841/month/person (~£26) to IDR 836,515/month/person (~£45)] ([Annex 4. 9](#)). Organic farming mentoring has resulted in peanuts, chives, taro, aubergine, long beans and corn production. By the end of 2022, the four farmer groups (33 women) had already harvested over 584 kg from 27 types of vegetables, beans and ground nuts from 2 ha of previously non-productive land. Their harvest was sold in local markets, such as Serawai, generating a total income of IDR 12,026,500 (~£650).

Previously, our target communities in BBR NP buffer and BPF relied almost entirely on forest products and shifting cultivation for their livelihoods. Since the implementation of our community development programme, the communities have started to learn and implement sedentary organic farming, which do not rely on deforestation of new areas to increase yields.

Moreover, farmers from other villages have already approached YIARI's Community Development Team asking for assistance, such was the case of Pak Manan from Mengkilau village whose in-laws are members of the Belatong Beroto groups. Pak Manan requested assistance from the team to implement sustainable sedentary farming in his farm after seeing the results of the programme implementation in Sekujang with the farmer groups. As a result, the head of the Nusa Poring village provided 2 ha of land for the implementation of sedentary farming for the residents of Mengkilau village. Moreover, the husband of a farming group member shared that access to a

⁶ Based on the 2020 socio-economic survey, total target population of 1,775 people (912 men and 863 women).

hand tractor made sedentary farming a much more appealing livelihood option now as compared to logging.

In BPF, 13% of all target households (260 farmers⁷ and their families) are currently contributing to sustainable livelihoods initiatives. Socio-economic surveys revealed a baseline of annual income of ca. £680-830 per family or ~ £460-500 per hectare. Income increase could not yet be observed due to the time required for seedlings to produce yields. Although the agroforestry practices implemented in BPF will take longer to provide direct monetary benefits to the farmers, monetary aspects of wellbeing were enhanced for some of some villagers through direct employment in forest protection. This was the case for Wastoyo whose livelihoods depended entirely on hunting and forest exploitation. He joined YIARI's wildlife survey and forest patrol training in 2021 and has now worked with YIARI in several forest protection and educational activities in Batutegi. Similarly, Ismail has also joined YIARI and is currently working at the Field Research Station. He left education after completing primary school, but is now knowledgeable on biodiversity and wildlife monitoring tools and much more confident in his capacity to learn and teach others. For complete testimonies and more 'champion' stories refer to [Annex 4. 24](#).

0.2 At least 20% of households (~600 women and men) by Q1 2023 and 50% of households (~1,500 women, men and children) by Q1 2024 report increases in non-monetary wellbeing (with at least half of increases being reported by women). Increased access to agro-biodiversity-based skills and resources, healthcare, education and literacy, will be reported against pre-project levels (baseline to be established by Q1 2022).

A total of 4,429 people⁸ (3,825 adults and 604 children) from both target landscapes have improved non-monetary wellbeing values, including access to formal and informal education, capacity-building and healthcare. A participatory wellbeing assessment will be carried out at the end of this project. Anecdotal evidence supports the thesis that wellbeing improvements have resulted in reduced pressure on natural resources. For example, through our service-learning programme, more than 10 youth from BBR NP buffer have abandoned forest exploitation to become educators and promote conservation in their villages. Two adolescents dropped illegal logging in BBR NP to attend computer lessons provided by YIARI and pursue different career paths. Similarly, Bunga, a girl from one of our target communities has dropped out of illegal logging with her father to enrol in our scholarship programme. She has now been accepted to nursing school and will start shortly ([Annex 4. 24](#)). Furthermore, the KAHIU scholarship has assisted seven young loggers to acquire a set of skills for them to pursue sustainable livelihoods.

Our long-term and holistic approach for biodiversity conservation focused on the complete integration and participation of the local communities in forest protection has already proved to have changed many lives. For example, YIARI's Education Programme Coordinator in BBR NP, Dieka Pertiwi, originally from Java, has embraced the Dayak life and settled in one of our target villages in BBR buffer. She began to work for YIARI in 2016 when the orangutan reintroduction programme started in the region. Since then, she has become an active voice for forest protection and community development and leads the implementation of several projects in BBR NP such as the establishment of the scholarship programme.

⁷ Latest population estimation of 2,004 households from the three target gapoktans.

⁸ BBRNP: 52 employed, 159 farmers in capacity building (i.e., sustainable agriculture and rubber production best practices); 543 in education [children: 355 literacy, 26 scholarship, 131 computer training; Women: 26 literacy, 3 computer training], and 3,325 people healthcare. BPF: 260 farmers trained in agroforestry and agrosilvopasture; and ~90 children in literacy and other skills.

Similarly, in BPF, Hinggrit, a female member of the local community who also has a degree in Forestry from the University of Lampung, first started at YIARI's Batutegi field office as an intern in 2019 and then volunteered for a while. She has now officially joined YIARI's team as education staff in 2022 and has become an active voice for conservation among the children and adults. She is also the only female staff at Batutegi field office, and she hopes to inspire other women to follow her steps. YIARI's educational programme in Batutegi has also provided the support needed for Tamar Widadi, a member of the local community, to expand his educational programme with local children. Tamar established a reading club known as Taman Baca in Jalosi Sanak Negeri for local children back in 2015. With YIARI's support, he was able to increase the number of children attending his classes. He has implemented an innovative peer teaching system where the more senior children in the group also provide mentoring to the younger children. This system has proved to be highly successful not only ensuring that all the children get the tutoring they needed, but also helping older children better retain their knowledge by teaching others.

These local champions' stories examples are provided in full in [Annex 4. 24](#).

0.3 By Q1 2024, ~50% of Batutegi tenant farmers (~700 people) report increased involvement in forest governance issues (baseline to be established by Q1 2022). Baseline = ~10 people. The majority of the governance-related activities were attended only by the leaders of the farming groups (head, secretary, treasurer).

The findings from the socio-economic surveys carried out in BPF in October 2022 were used to assess current perceptions of the farmers towards their involvement in governance issues. Of the 260 farmers interviewed (a sample from the three farming groups), 148 Farmers (56%) reported that they had received assistance during group activities related to governance issues organised by YIARI and KPH. During these activities and meetings, YIARI guided the farming groups to organise themselves and both create and socialise farming group rules, share technical knowledge on how to manage the land, and provided insights into what suitable varieties of plants should be grown. The expectation is that with this new knowledge, the farming groups will become more independent, motivated and sustainable in carrying out their activities. Other survey responses which may indicate an increased sense of involvement in governance were that 52% of the farmers reported they would be willing to report illegal activities observed within BPF and 10% said to be interested in becoming Community Rangers ([Annex 4. 22](#)). Additional surveys will be carried out in Q1 2024 to assess changes in perceptions.

In addition to the surveys, the actual involvement in governance-related activities by farmers was measured. Since the start of the project, 342 tenant farmers were involved in governance-related activities, 48% of the total target farmers (700 people). This number is expected to increase with activities planned in the next period. From these, 220 farmers from three target gapoktan (127 from Sumber Makmur, 37 from Wanatani Lestari and 56 from Mandiri Lestari) and 17 different sub-groups (Gabungan Kelompok Tani Hutan) have participated actively in forest and land management activities including socialisation of the community plans (*Anggaran Dasar/ Rumah Tangga*), capacity building sessions for farming methods and land management, and have regularly attended the focus group discussions held by YIARI. The assumption is that the 220 active farmers will then disseminate the findings of the governance meetings, updates, and issues to the other members of their respective groups, thereby increasing the number of farmers that feel involved in local governance.

In addition, a total of 122 different farmers located near the border of the core forest block, have participated in activities relating to habitat protection and customary law enforcement in the area which includes SMART patrols and installing information boards. This group were also involved in the participatory mapping of the core zone border and the planting of trees to demarcate the border.

0.4 The number of illegal activities in the Batutegi forest core zone is reduced by 20% (by Q2 2023) and 50% (by Q1 2024) (against a baseline of 98 incidents per year - 2019 data)

SMART Patrol days increased by 47% in 2022 as compared to 2021 (from 94 to 138). Patrol hours increased by 57% (from 449 hrs to 703 hrs). The overall patrolled distance for the entire year also increased by 20% (from 300 km to 359 km). Meanwhile, the number of encounters with illegal activities during patrols decreased from 110 in 2021 to 97 in 2022. The overall Encounter Rate (number of incidents per hour of patrol) of illegal activities decreased by 44% (from 0.24 to 0.14). Among the activities with the highest decrease was the collection of non-timber forest products, mostly bamboo crystals (-90%) and fish (with no incidents encountered in 2022). The Encounter Rate of people conducting illegal activities in the forest has also decreased by 70% (Annex 4. 17).

0.5 Forest cover loss in Batutegi is reduced by 20% (by Q4 2022) and 50% (by Q1 2024) (against a baseline deforestation rate of 3.5% per year)

The level of deforestation in the Batutegi KPHL area has been monitored and mapped through the RADD Forest Disturbance Alert team (Reiche et al., 2021) which is accessed and analysed using the Google Earth Engine (GEE) platform and QGIS. Forest Cover Loss was calculated from 2001 to 2021 based on Landsat satellite imagery. Sentinel satellite imagery was used to re-calculate annual Forest Cover Loss in 2022 because Landsat data was unavailable for 2022. Landsat 2022 data will be available in July 2023 when Forest Cover Loss will be recalculated.

Forest cover loss monitoring assists in evaluating if our strategy to deter forest encroachment is working. However, by identifying the intensity and specific locations of forest loss, the field team can then carry out ground checks to verify the scale and reason for the deforestation.

The total forest loss in the Batutegi KPHL in 2022 was 3.6 ha, most of which occurred in the Banjaran – Batulima Resort (especially the forest core block section), representing 0.10% of the total area. There has been a reduction in Forest Cover Loss by 52% from 2021 to 2022 (Annex 4. 26). While forest loss in BPF is still occurring, the annual area lost is no longer considered to be a major threat to this forest habitat.

*0.6 Populations of threatened indicator species including Sumatran tiger (*Panthera tigris sumatrae*), sun bear (*Helarctos malayanus*), Bornean gibbon (*Hylobates albibarbis*), Sunda pangolin (*Manis javanica*) and Sunda Slow Loris (*Nycticebus coucang*) are shown to remain stable against baselines (pangolin Relative Abundance Index [RAI]: 1.45, tiger RAI: 0.15, sun bear RAI: 0.34, loris encounter rate: 1.5 individuals/km, gibbon density: 4.52 km²) in surveys conducted by Q4 2022 and Q1 2024.*

Biodiversity monitoring in BPF has continued. In 2022, a total of 42 species of mammals including 7 species of primates, 98 species of birds, 10 species of reptiles, and 10 species of amphibians were recorded. The wildlife inventory was compiled from camera trap monitoring, forest patrols and other field activities. Camera trap data were obtained from 41 camera units installed around Way Rilau forest area and six camera units installed around Rindingan forest for a total of 217 days. Wildlife inventory during SMART patrols has been possible through a partnership with UNILA and the participation of university students in the community patrols.

Sumatran tiger (*Panthera tigris sumatrae*), clouded leopard (*Neofelis diardi*), golden cat (*Catopuma temminckii*), stone cat (*Pardofelis marmorata*), leopard cat (*Prionailurus bengalensis*), tapir (*Tapirus indicus*), sun bear (*Helarctos malayanus*), anteater (*Manis javanica*) continue to be captured in camera trap images. In addition, there are also several new species findings such as Sunda clouded leopards in the Way Rilau forest area and Sumatran rabbits in the Rindingan forest area. However, unfortunately this year no Sumatran forest goats or rabbits were recorded in the Way Sekampung forest area. Relative Abundance Index (RAI) were calculated for the species encountered. Results revealed that primates (RAI=12.61) and ungulates (RAI=8.55) were the most abundant animal classes.

Baselines of the indicator species have now been corrected. Previously, they were based only in a three-months study already published by a YIARI staff member. The whole 2018-year data has been re-analysed now, which has provided us with more accurate baselines: Sumatran Tiger RAI=0.27; Sun bear RAI=0.25 and Sunda pangolin RAI=0.19. For 2022, the RAI for Sumatra tigers decreased to 0.13, however, it is still much larger than the 2017 survey result (RAI=0.07). Sun bears (RAI=2) and Sunda pangolin (RAI=0.29) populations increased when compared to the new baselines. Population density of slow lorises has not yet been accessed ([Annex 4. 27](#)).

The high abundance of prey species for large carnivores identified at Batutegi suggested that sufficient food sources for the tigers, leopards and other cats were available. Additional indicators of a healthy and stable ecosystem caught on camera traps at BPF were evidence of new births in three different species: two different golden cat cubs were identified, one clouded leopard cub and one Sumatran serow kid. For complete results of biodiversity monitoring in BPF, see [Annex 4. 27](#).

Though the course of the project, YIARI has built several partnerships with universities, academic students, internships and field practitioners. In the past year, these partnerships have resulted in 11 studies published, two of which were academic theses: “Habitat Study of the Sunda Clouded Leopard (*Neofelis diardi* Cuvier, 1823) in the Batutegi Protected Forest Area, Lampung” by Hafidz Nur Malik (IPB); and “Rhopalocera Community Structure at Way Sekampung Resort, Batutegi Protected Forest, Lampung Province” by Cita Ramadhanti (UNILA).

Biodiversity monitoring in BBR NP has also continued. New baselines were also set for the period between August 2021 and July 2022, ensuring all data are proven to be scientifically robust and in-turn suitable for publication. This was due to inconsistencies with field staff and also camera trap functionality. All data from our camera traps have been re-managed and uploaded to our online divisional Dashboard. Overall, our 21 camera traps were active for a total of 6,949 hours [baseline (B) n=5,609 hrs and Project phase (P1) n=1,340 hrs], identifying 46 species of wildlife including 33 species of medium to large mammals, 6 species of birds, and one species of reptile. Of the 46 wildlife species identified, six species are endemic to Borneo, 14 have protected status under Indonesian law, and 14 fall under the IUCN categories of threatened species: 10 as Vulnerable (VU), two as Endangered (EN), and two as Critically Endangered (CR) —i.e., *Manis javanica*, and *Pongo pygmaeus* which are also included in the CITES Appendix I list. One species, *Varanus rudicollis*, is classed as Data Deficient (DD) under IUCN Red List.

The species captured the most were the Southern pig-tailed macaque (*Macaca nemestrina*, B-RAI= 6.10, P1-RAI=4.33), Southern Red Muntjac or barking deer (*Muntiacus muntjak*, B-RAI= 3.28, P1-RAI=2.01), the Long-tailed Porcupine (*Trichys fasciculata*, B-RAI= 2.96, P1-RAI=1.19), the Banded Civet (*Hemigalus derbyanus*, B-RAI= 1.26, P1-RAI=1.04), and the Greater Oriental Chevrotain (*Tragulius napu*, B-RAI= 1.46, P1-RAI=0.45). For complete results of the biodiversity monitoring in BBR NP, see [Annex 4. 28](#).

Furthermore, we are pleased to report that YIARI’s camera trapping data was part of an Indonesia-wide camera trapping survey. The results were published in Science Direct peer-reviewed journal,

entitled ‘Implications of large-scale infrastructure development on Borneo’s terrestrial mammals.’⁹

3.4 Monitoring of assumptions

Outcome assumptions:

Assumption 1: There are no major changes to the current management structure in Provincial Forestry Services.

Comments: No major changes have occurred in the structure of the Provincial Forestry services during the last project period.

Assumption 2: A productive and collaborative working relationship between YIARI, the Lampung Province Forestry Service (*Dinas Kehutanan*) and the local farming groups (*gapoktan*) is maintained.

Comments: Relationships between these different partners and stakeholders have remained good throughout.

Assumption 3: No significant extra pressure is placed on Forestry or NP Service staffing through unplanned events.

Comments: No new unplanned events have created extra pressure in BPF during this last period.

Assumption 4: Local agencies remain committed to curbing illegal activities and are willing to commit resources.

Comments: KPH still commits to reducing illegal activities. However, there are resource issues (financial) and also capacity issues. The project is working to strengthen farmer groups that can collaborate with and support KPH to help protect the forest through community-based patrols. The project is planning to set up a communication forum to help coordinate. This next period YIARI plans to expand its activities to another area of KPH Batutegi called Rindingan that has high levels of disturbance.

Output 1 assumptions:

Assumption 5: Community members remain engaged in community groups surrounding BBBR NP.

Comments: Communities have remained engaged and formed additional community groups.

Assumption 6: Local people re-invest benefits to support continued livelihood improvements.

Comments: We could already observe an increase in the participation of our target communities in the local economy through sustainable livelihoods. For example, through the Vegetable Transportation Initiative, 23 farmers (91% women) who had never sold their crops in the market before joined the programme and made their first sales thanks to the boat service.

⁹ <https://www.sciencedirect.com/science/article/pii/S0048969722081785>

Output 2 assumptions:

Assumption 7: The level of commitment from the Lampung Province Forestry Service and the farming groups in Batutegi towards the joint development and implementation of a scalable livelihood strategy remains high.

Comments: The levels of commitment have remained high. The contents of the new long-term strategic plan for Batuegi remain in line with this project's goals.

Assumption 8: Mutual trust between the Lampung Province Forestry Service and the farming groups in Batutegi is upheld.

Comments: So far, mutual trust is still present. No issues have been identified.

Assumption 9: Government staff trained (old and new) in the SMART approach remain in key posts.

Comments: No staff that recently received training have been transferred. Refresher courses are planned for this next period.

Output 3 assumptions:

Assumption 10: Increased awareness of legal obligations, potential benefits, and risks connected to nature degradation contributes positively to a shift in attitudes and behaviour.

Comments: There has been increased awareness among the farmers in BPF during this last period, but it is too early in the project to measure the impact fully. However, there are early indications of changes in perceptions and behaviours from the shift towards organic and more sustainable practices in farming.

Output 4 assumptions:

Assumption 11: Reintroduced orangutans adapt well and can reproduce after reintroduction into BBRNP.

Comments: So far reintroductions have experienced zero mortalities, with good ecological adaptation and health levels, as assessed monthly through behavioural data and visual health checks.

Assumption 12: Hunting pressure on the orangutan population remains low.

Comments: No recorded case of orangutans being hunted in our target area.

3.5 Impact: achievement of positive impact on biodiversity and poverty reduction

Impact: Large mature bio-diverse forests support healthy ecosystems and stable species populations because of increased local wellbeing, education and better health, which reduce dependence on exploitative uses of nature.

So far, some of the elements contributing to achieving our impact statement are:

- Livelihoods and education initiatives benefit about 1,200 people resulting in many community members shifting from unsustainable to sustainable livelihoods strategies. For example, 16% (n=46) of the beneficiaries of our community development programme in BBBR NP were involved in logging at the National Park, 37% (n=17) of these have now abandoned logging completely. Additionally, 10 youths have abandoned illegal logging to enrol in our educational programmes. Outreach activities have already resulted in good understanding of the benefits and importance of forest and biodiversity protection and increased forest-edge community participation in forest governance, protection and care.
- Ongoing presence of threatened species in both BPF and BBBR NP with an increase in wild Bornean orangutan population and reintroduced females successfully reproducing, low mortality rates and minimal human wildlife conflict in the area.
- Reduction of forest threats in both landscapes. In BBBR NP, the number of illegal loggers and hunters reduced by 13% between 2020 and 2022, with the greatest reduction among hunters (49%) and the youth (66%). In BPF, there was a decrease in 44% of illegal activities encounter rate (from 0.24 to 0.14) between 2021 and 2022.

4. Project support to the Conventions, Treaties or Agreements

This project aligns with Sustainable Development Goal (SDG) 1 by reducing the number of men, women and children of all ages living in poverty by identifying livelihood interventions that will provide access to natural resources, while protecting biodiversity, SDG 3 by contributing to improving access to healthcare in rural communities, SDG 4 by providing access to education to both children and women as a proven vehicle for sustainable development, SDG 5 by engaging women and ascertaining targeted livelihood interventions, SDG 12 by educating communities to understand the linkages between ecosystem health and human health and livelihoods, to reduce untenable resource use and degradation, SDG 13 by supporting the protection of large and valuable carbon stocks and SDG 15 by protecting highly biodiverse and threatened terrestrial ecosystems.

Indonesia ratified the Convention on Biological Diversity in 1994 and its current National Biodiversity Strategic Action Plan (NBSAP) runs from 2015 to 2020. Overall, this project contributes to Indonesia's efforts to preserve natural forests and the biodiversity found within them. The Government of Indonesia has selected 49% of its forests for protection or conservation purposes intending to preserve them for the long term and both project landscapes contribute to this target. More specifically, this project contributes primarily to Article 8(d) by supporting the protection of two key forest ecosystems and working to maintain viable populations of species within them; 8(e) by supporting sustainable development in areas adjacent to protected areas to strengthen the ecological resilience of these areas; and 8(i) by enabling the conditions needed for compatibility between conservation of biological diversity and the sustainable use of its components by local communities. Furthermore, the project contributes to Article 10(c) by encouraging traditional agro-biodiversity-based livelihoods and the collection of non-timber forest products following traditional cultural practices and sustainable use. Moreover, the NBSAP identifies the lack of biodiversity data updates as an important challenge to managing its biodiversity effectively. By collaborating with park authorities, forest management units (district-level forest management authorities - *KPH*) and the Nature Conservation Agency (*BKSDA*), this

project will provide regular updates in two important biodiversity areas that would otherwise lack resources to provide biodiversity data updates. The project contributes to another recommendation in the NBSAP, that of increasing awareness on the importance of biodiversity for the sustainability of human life through local-level education and engagement efforts.

In April 2023, the Lampung Forestry Service and YIARI presented the findings of the biodiversity survey from KPH Batutegi and the conservation strategy being implemented in the area to the Directorate General of Nature Resources and Ecosystem Conservation. It was recommended that due to the successful results achieved from the conservation approach taken in BPF, this approach should be adopted and replicated in other KPH managed areas across Indonesia.

5. Project support to poverty reduction

Our activities supporting an improvement in primary and secondary education are tackling some of the root causes of poverty in these communities, while development of sustainable agricultural initiatives, increased access to local markets, health provision and job creation linked to wildlife reintroduction, SMART patrolling and long-term monitoring are contributing to poverty alleviation in the short, medium and longer term. Please refer to section 3.1 for more detail.

6. Gender equality and social inclusion

Please quantify the proportion of women on the Project Board ¹⁰ .	54% women (n=7) from a total of 13 core project staff.
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ¹¹ .	<p>No complete staff records could be obtained from our project partners.</p> <p>For KPH Batutegi Lampung Province, from the 18 staff members, 3 are women (17%): 1 Forestry Police (PolHut) and 2 in Administration. In the Lampung University (UNILA), our two project partners are women lecturers. We estimate that approximately 50% of the senior leadership in UNILA are women.</p> <p>In Bukit Baka Bukit Raya National Park Authority (BBBRNPA), there are 6 full-time staff (1 head of Park, 1 deputy head of park, 1 head of resort, 1 area conservation analysis, 1 M&E, 1 administrative and reporting) of which one is a woman (17% women representation).</p>

All workshops and community engagement are as inclusive as possible to maximise opportunities for all, but the project is focusing particularly on women and children as these are key groups in both alleviating poverty and achieving positive impacts on biodiversity. The project is striving to address gender disparities in two focal areas, by working towards proportional participation in activities and higher levels of female literacy. Additionally, we are

¹⁰ A Project Board has overall authority over the project, is accountable for its success or failure and supports the senior project manager to successfully deliver the project.

¹¹ Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

co-creating livelihood opportunities with women's groups and other community representatives where women are able to participate fully and/or take the lead. In BBBR NP, female farmers (97% of participants) are leading on livelihoods opportunities. In BPF, although fewer women are involved, they have shown to be very active in governance issues. For example, Mrs Sriatmatun often reports progress or issues back to YIARI, and she is always involved in the capacity building trainings run by YIARI. She has then taken the initiative to train other people in the group with the knowledge she has acquired, such as how to produce organic fertilizer and organic pesticide.

7. Monitoring and evaluation

Every six months, relevant project staff and partners meet and the project outcome and output indicators as set out in the log frame are discussed. At the end of each project year, project staff will be monitored and evaluated, and any necessary modifications and recommendations made to ensure they operate effectively. This will establish a model for future adaptive management of these teams.

YIARI also holds monthly meetings with the relevant project managers, the Programme Director and Programme Advisors to discuss recent progress, any obstacles encountered and short-term planning. These regular informal meetings provide a platform for free and open discussions between all relevant programme staff and each manager to personally reflect and evaluate the activities of their respective teams over the past month. Managers are encouraged to participate in the problem-solving process and assist in the development of potential solutions to their specific problems to ensure that they feel fully involved and invested in the strategic planning process.

Monitoring, Evaluation and Learning activities:

- End of project household surveys will be used to assess project impacts in increasing community wellbeing, reducing poverty, increasing awareness and reducing hunting of protected species.
- Camera trapping and biodiversity surveys have been used to monitor relative abundance and encounter rates of target endangered species.
- Global forest watch data has been used to monitor deforestation rates.
- Radio-tracking together with on-the-ground monitoring has been used to monitor orangutan survival and adaptation after reintroduction.
- Post-training and activities evaluation forms have been used to assess the effectiveness of training and awareness-raising approaches.
- Regular community consultations have been used to access community feedback across our programmes.

As part of the project evaluation conducted by Niras and the appointed evaluator we have learned that we should be doing more to capture qualitative data which can tell us something different about project impact. More specifically, we need to add indicators – that can capture improvement in quality of life and job opportunity access. There is also an opportunity to use case studies, examples, champions etc to write pieces and storytelling which demonstrate impact in a qualitative way.

8. Lessons learnt

- Building trust with farming groups

Our approach to engaging and gaining trust from farming groups in BPF has worked very well. This has been a gradual process that has taken time. From the beginning, we never promised any financial support, just support in raising capacity and knowledge of farming methods. We were

also careful not to present ourselves as farming experts, instead we conveyed to them that we were there to learn with the farmers and provide assistance. We worked with the materials and resources they had available and adapted the methods currently being used. Our softer approach and long-term commitment has resulted in high levels of engagement and trust amongst the three groups.

- Working with existing educational establishments and forums.

Rather than establishing new education activities or groups in the area, we worked to engage and develop those that were already established. For example, we have been collaborating and supporting the local Taman Baca (reading club). The Taman Baca has now gone from being a club purely for reading to more of an education centre that provides information and educational activities related to environment (recycling, wildlife identification etc.). In addition, we have engaged many local youth forums active in the area that engage in outdoor adventure activities and are providing them with information on caring for nature.

- Coordination and collaboration with the local government

We have built up a strong positive relationship and trust with the Lampung Forestry Service. The head of the forestry service commented that he often uses YIARI as a role model for other NGOs due to our respectful approach to the working collaboration. During our working relationship, we have always offered our support to the forestry department in their work and ensured that the projects we run in the area are mutually beneficial to both parties. We ensure that communication is frequent and open. We provide support from planning, to implementation and finally evaluation of the projects. Due to this good working relationship, we have always received appreciation and support from the Forestry Service. Based on the success in BPF, the Head of the Forestry Service Lampung has recommended that we expand our work to other areas outside of BPF.

9. Actions taken in response to previous reviews (if applicable)

Feedback from the previous yearly report was addressed in the last half year report and through change requests, particularly regarding updates to the logframe. Although we have not yet seen the evaluation report, we have tried to include more qualitative data, quotes, knowledge retention data, etc as advised by the consultant who conducted our evaluation.

10. Risk Management

No new risks have arisen in the last 12 months.

11. Other comments on progress not covered elsewhere

There have been no significant challenges or unexpected contextual changes over the past 12 months.

12. Sustainability and legacy

This project was designed to maximise capacity building and knowledge transfer among civil society and government partners to sustain key activities beyond the lifespan of the project. Wherever possible we create opportunities for communities to cooperate directly with government agencies and access the networks and resources that are available to them.

Despite designing the project to minimise dependence on project facilitators, YIARI will continue to collaborate closely with the local communities, partners, BBBR NP authorities and KPH to support project success over the medium and longer terms.

13. Darwin Initiative identity

Since the last annual report, a talk was given at an IPB conference on 1 September 2022 (Bogor Indonesia) showcasing some of the projects livelihoods interventions as funded through the Darwin Initiative.

14. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	Not updated yet, but this is in progress. The HR manager gives regular talks on harassment, discrimination, bullying and abuse in the workplace. Below is YIARI's safeguarding poster [REDACTED]
Have any concerns been investigated in the past 12 months	No (But this year YIARI has focused on how best its safeguarding tools can be implemented in the field)
Does your project have a Safeguarding focal point?	Yes Rikardus [REDACTED]
Has the focal point attended any formal training in the last 12 months?	Yes, Rikardus has completed Health, Safety, Security and Environment (HSSE) National Standard Certification
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 70% Planned: 100%
Has there been any lessons learnt or challenges on Safeguarding in the past 12 months? Please ensure no sensitive data is included within responses. NA	
Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify. NA	

15. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)

Project spend (indicative) since last Annual Report	2022/23 Grant (£)	2022/23 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Consultancy costs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Overhead Costs	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Travel and subsistence			
Operating Costs			
Capital items (see below)			
Monitoring & Evaluation (M&E)			
Others (see below)			
TOTAL			100%




Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

16. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Consent of subjects received (delete as necessary)
JPG		Community managed boat increases market access for female farmers, Indonesia, YIARI Community Development Team	No (but this can be obtained)
JPG		Community managed boat increases market access for female farmers, Indonesia, YIARI Community Development Team	No (but this can be obtained)

JPG		Orang-utan release, Indonesia, YIARI	NA
JPG		Orangutan release, Indonesia, YIARI	NA
JPG		Coffee agroforestry	No (but can be obtained)

This project set out to prove that when given access to meaningful opportunities local people will move away from logging, hunting and other exploitative uses of nature. Two years in we are seeing how women, men and children in rural remote and impoverished villages will choose education, agroforestry and vegetable farming over logging when given a chance, appropriate tools and some mentoring.

Ongoing presence of threatened species in both BPF and BBBR NP with an increase in wild Bornean orang-utan population (reintroduced females successfully reproducing, low mortality rates and minimal human wildlife conflict) demonstrates that threatened population recovery is achievable when relationships with local communities are built on trust and when people feel they are being put first.

A reduction of forest threats in both landscapes demonstrates that holistic approaches co-created with communities that include monetary and non-monetary aspects of wellbeing can achieve environmental outcomes even in some of the most threatened landscapes in Indonesia.

Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023

Project summary	SMART Indicators	Progress and Achievements October 2021 - December 2022	Means of verification	Actions required/planned for next period
<p>Impact</p> <p>Large mature bio-diverse forests support healthy ecosystems and stable species populations because of increased local wellbeing, education and better health, which reduce dependence on exploitative uses of nature.</p>		<p>The project has exceeded expected targets for healthcare, education, environmental awareness raising and local governance components and is on track to achieve planned targets on increasing incomes linked to agro-biodiversity-based livelihoods, orang-utan releases and maintenance of key threatened species in the landscape. The project is behind schedule for the wildlife consumption component (BBBRNP).</p>		
<p>Outcome</p> <p>By 2024, over 200,000 ha of forest and target species are protected through sustainable, locally-led and scalable livelihoods strategies, as well as stronger governanc</p>	<p>0.1 Ten percent of households (~300 women and men) by Q2 2023 and 20% of households (~600 women and men) by Q1 2024 report a 10% increase in income (average income is 1.1 million IDR in BBBR main villages and 3 million IDR in Sumatra). [In Mawang Mentatai village (n=102) 83 households [81%] are poor, in Nusa Poring village (n=138) 116 households [84%] are poor. 2019 survey data (n=240)]</p>	<p>0.1 BBBRNP:15% of the people in our target communities (254 people: 95 men and 159 women) are the direct beneficiary of our livelihoods programme. Through the Vegetable Transportation Initiative, 125 main beneficiaries (7% of the households) had their family income increased by 68% [from IDR 484,841/month/person (~£26) to IDR 836,515/month/person (~£45)].</p> <p>BPF: 13% of all target households (260 farmers) are currently beneficiary of our community development programme. Socio-economic surveys revealed a baseline of annual income of ca. £680-830 per family or ~ £460-500 per hectare. Income increase could not yet be observed due to the long time required</p>	<p><i>Income records</i> [Annex 4. 9]</p> <p><i>Vegetable production and sugar records / photos</i> [Annex 4. 25]</p> <p><i>Field Reports</i> [Annex 4. 4, Annex 4. 6, Annex 4. 7]</p>	<p><i>0.1 We will continue to provide support to local farmers in our two target landscape through the continuation of current programmes and development of new initiatives.</i></p>

<p>e, benefitting ~3,000 women, men and children.</p>	<p>0.2 At least 20% of households (~600 women and men) by Q1 2023 and 50% of households (~1,500 women, men and children) by Q1 2024 report increases in non-monetary wellbeing (with at least half of increases being reported by women). Increased access to agro-biodiversity-based skills and resources, healthcare, education and literacy, will be reported against pre-project levels (baseline to be established by Q1 2022).</p> <p>0.3 By Q1 2024, ~50% of Batutegi tenant farmers (~700 people) report increased involvement in forest governance issues (baseline to be established by Q1 2022).</p>	<p>for the planted seedling to become to produce yields.</p> <p>0.2 4,429 people (3,825 adults and 604 children) people participated in activities which supported improvements in non-monetary wellbeing, through improvements in healthcare, education, and increased knowledge of sustainable farming practices and ecosystem services. This exceeds the final target (if participating community members report these increases when survey take place at the end of the Project).</p> <p>0.3 So far, 342 tenant farmers were involved in actual governance-related activities, 48% of the total target farmers (700 people). This number is expected to increase with the further activities planned in the next period. From these, 220 farmers have participated actively in forest and land management activities</p>	<p><i>ASRI records / emails / shared documents</i> [Annex 4. 1] <i>Education Programme Field Reports</i> [Annex 4. 11 and Annex 4. 12] <i>Attendance records</i> [Annex 4. 21]</p> <p><i>Attendance lists</i> [Annex 4. 21]</p> <p><i>Field Reports</i> [Annex 4. 6]</p> <p><i>Survey with farmers</i> [Annex 4. 22]</p>	<p><i>0.2 We will continue to provide training, health services and assistant for the communities in community and education development throughout the course of this Project.</i></p> <p><i>0.3 We will continue to carry out socializations and FGDs in our target villages and encourage the local farmers groups to take the lead on forest and land management throughout the course of this Project.</i></p> <p><i>A long-term village management plan has been discussed with village and farmers' groups representatives.</i></p>
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	<p>0.4 The number of illegal activities in Batutegei forest core zone is reduced by 20% (by Q2 2023) and 50% (by Q1 2024) (against a baseline of 98 incidents per year - 2019 data).</p> <p>0.5 Forest cover loss in Batutegei is reduced by 20% (by Q4 2022) and 50% (by Q1 2024) (against a baseline deforestation rate of 3.5% per year)</p> <p>0.6 Populations of threatened indicator species including Sumatran tiger (<i>Panthera tigris sumatrae</i>), sun bear (<i>Helarctos malayanus</i>), Bornean gibbon (<i>Hylobates albibarbis</i>), Sunda pangolin (<i>Manis javanica</i>) and Sunda Slow Loris (<i>Nycticebus coucang</i>) are shown to remain stable against baselines (pangolin Relative Abundance Index [RAI]: 1.45, tiger RAI: 0.15, sun bear RAI: 0.34, loris encounter rate: 1.5</p>	<p>0.4 The overall Encounter Rate (number of incidents per hour of patrol) of illegal activities decreased by 44% (from 0.24 to 0.14) between 2021 and 2022.</p> <p><i>Note: since patrol efforts have largely increased in the past years, direct comparison with the number of incidents encountered in 2019 (baseline) cannot be made.</i></p> <p>0.5 There has been a reduction in Forest Cover Loss by 52% between 2021 and 2022. The Forest Cover Loss in 2022 were 97% smaller than our baseline of 3.5% per year.</p> <p>0.6 BPF: New baselines have been calculated for the indicator species based on the 2018 surveys: Sumatran Tiger RAI=0.27; Sun bear RAI=0.25 and Sunda pangolin RAI=0.19. For 2022, the RAI for Sumatra tigers decreased to 0.13, however, it is still much larger than the 2017 survey results (RAI=0.07). Sun bears (RAI=2) and Sunda pangolin (RAI=0.29) populations increased when compared to the new baselines.</p> <p>BBBRNP: New baselines were also established (Aug21-Jul22) to ensure scientific validity. Comparison with the complete data for Period 1 (Aug22-Jul23)</p>	<p><i>SMART Patrol records [Annex 4. 17]</i></p> <p><i>Forest Cover loss calculation and YIARI's Google Studio Forest cover loss Dashboard [Annex 4. 26]</i></p> <p><i>Biodiversity survey reports and Relative Abundance Index calculations [BPF: Annex 4. 27 and BBBRNP: Annex 4. 28]</i></p>	<p><i>0.4 SMART patrol will continue to be carried out on a monthly basis in BPF.</i></p> <p><i>0.5 Forest cover loss will be continued to be monitored for the next year. Data will be re-calculated using Landsat satellite imagery.</i></p> <p><i>0.6 Wildlife monitoring will continue until the end of this Project.</i></p>
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	individuals/km, gibbon density: 4.52 km ²) in surveys conducted by Q4 2022 and Q1 2024.	will be reported in the Final Report. Preliminary results are shown in Annex 4. 28 .		
Output 1. By 2024, the wellbeing of ~3,000 impoverished women, men and children has improved through better managed agroforestry systems, access to education (especially women and children), healthcare and employment opportunities associated	<p><i>1.1 By Q4 2022, at least 3,000 seedlings of high value agroforestry species are planted in the multiple use zone of BT.</i></p> <p><i>1.2 By Q4 2023, new jobs for at least 20 additional community members will be created through the release and monitoring of 30 orangutan.</i></p> <p><i>1.3 By Q4 2023, at least 100 adult women and 120 children access to literacy and/or computer courses.</i></p> <p><i>1.4 By Q4 2021, 20 students will receive scholarships to pursue secondary education.</i></p>	<p><i>1.1</i> A total of 2,560 agroforestry seedling have already been planted in the multiple-use zone of BPF since the start of this programme (1,145 in 2021 and 1,415 in 2022) involving 60 farmers across 93 ha.</p> <p><i>1.2</i> YIARI is employing 59 full time staff members from our target communities to carry out our programme activities in BBBR NP. Additionally, over 30 daily workers from the local communities are hired for each of our reintroduction events (twice every year). Twenty-four new jobs have been created during this project period.</p> <p><i>1.3</i> Together, both language and computer literacy programmes have improved the capacity of 444 children (exceeding our target in ~300%) and 43 women (43% of our target) from our target communities.</p> <p><i>1.4</i> 17 middle and high school scholarships (F=14, M=3) have been currently provided. Since the project</p>	<p><i>[Agroforestry programme Field Reports: Annex 4. 6]</i></p> <p><i>List of participants and test scores [Annex 4. 10]</i></p> <p><i>Scholarship Recipients Data [Annex 4. 12]</i></p>	<p><i>Seedlings will be continued to be produced in the five community nurseries.</i></p> <p><i>Assistance to the farmers through regular field checks, meetings and the Field School will continue.</i></p> <p><i>YIARI will continue to provide employment to the local community through the already established job positions. Daily workers will be hired for the next planned reintroduction events.</i></p> <p><i>Literacy and computer classes will be continued to be provided to the communities.</i></p> <p><i>Continue to provide scholarship for secondary education.</i></p>

<p>with wildlife reintroductions and monitoring</p>	<p><i>1.5 By Q4 2023, at least 2,000 women and men receive low-cost healthcare in BBBRNP.</i></p> <p><i>1.6 By Q4 2023, at least 180 farmers have improved capacity in sustainable agriculture and rubber production.</i></p>	<p>start, 28 students have received our scholarships. <i>Kahiu</i> scholarship programme has benefited further 7 out-of-school youth from BBBRNP buffer.</p> <p><i>1.5 3,325 people received healthcare assistance in BBBR NP by Q4 2022.</i></p> <p><i>1.6</i> A total of 159 local farmers had their capacity improved in sustainable agriculture (32 men and 73 women) and rubber production (38 men and 16 women), representing 88% of our target.</p>	<p>ASRI records [Annex 4. 1]</p> <p>Training records [Annex 4. 8 and Annex 4. 7]</p>	<p><i>Continue to provide mentoring to Kahiu students such as organic farming and aquaculture business assistance.</i></p> <p><i>No more healthcare assistance will be provided.</i></p> <p><i>Refresh training in sustainable farming practices will be continued to be provided.</i></p> <p><i>Mentoring for the implementation of rubber extraction best practices will be provided to the enrolled farmers.</i></p>
<p>Activity 1.1. Run participatory rural appraisals to understand community needs in more depth.</p>	<p>BBBRNP: This activity has already been completed. However, regular monthly meetings and gatherings with our nine target communities will continued through the course of this Project.</p> <p>BPF: Socio-Economic Survey completed.</p>	<p>BBBRNP: This activity has already been completed. However, regular monthly meetings and gatherings with our nine target communities will continued through the course of this Project.</p> <p>BPF: Socio-Economic Survey completed.</p>	<p>Meeting records / notes [Annex 4. 4]</p> <p>Socio-Economic Survey [Annex 4. 5]</p>	<p><i>Activity completed, although regular communication with the communities and assisted farmers will continue.</i></p>
<p>Activity 1.2. Provide training resources and support to successfully grow agroforestry seedlings for at least 100 women and men.</p>	<p>In BPF, a total of 60 farmers (60% of our target) have been trained and are active in agroforestry practices. Training in this past 12 months included, avocado grafting, seeds sowing, and seedlings care in the nurseries, livestock</p>	<p>In BPF, a total of 60 farmers (60% of our target) have been trained and are active in agroforestry practices. Training in this past 12 months included, avocado grafting, seeds sowing, and seedlings care in the nurseries, livestock</p>	<p>Draft of agreements/ Field Reports [Annex 4. 6]</p>	<p><i>Continue to provide support and training to the farmers in BPF.</i></p>

	management, and organic farming. Additionally, a Field School was launched, connecting agroforestry experts with the local farmers.		
Activity 1.3. Provide agricultural training and market systems support to 144 women and men.	<p>BBBR NP:</p> <p>In this past 12 months:</p> <ul style="list-style-type: none"> • Sustainable Farming: Regular mentoring provided to 33 women farmers from the 4 assisted farming groups; 53 farmers trained (4 men and 49 women). • Rubber Training: 54 farmers trained (38 men and 12 women). 	<p>Field records [Annex 4. 7, Annex 4. 8, Annex 4. 4]</p> <p>Attendance List [Annex 4. 21]</p>	<i>Continuation with sustainable farming and rubber extract best practices training and mentoring.</i>
Activity 1.4. Develop and implement action plans to improve production, storing, processing, packaging and selling of selected sub-sectors.	<p>BBBR NP:</p> <ul style="list-style-type: none"> • Vegetable Transportation Initiative: 125 main beneficiaries (7 men and 118 women); 152 vegetable farmers benefited in total (94% women). • Sugar Cane Processing: Programme partially discontinued this past year. A total of 57 families benefited since the beginning of the programme. 	<p><i>Field records</i> [Annex 4. 4 and Annex 4. 9]</p>	<p><i>Continuation of the Vegetable Transportation Initiative and Sugar Cane Processing Programme.</i></p> <p><i>Continuous monitoring of livelihoods programmes impact (i.e. number of people active, income generated, SOP's, community perception and motivation, etc)</i></p>
Activity 1.5. Train 20 community members and 6 government officials in wildlife monitoring.	BBBR NP: 36 people trained in these 12 months, from which 14 people (were trained in Hornbill Conservation and Survey techniques. On average, participants increased their knowledge of hornbill ecology and survey methods by	<p><i>Training photos</i> [Annex 4. 28 in the ppt file]</p>	<i>Refresh training will continue with local staff members.</i>

		65%, from 43% in the pre-test to 73% in the post-test.		
Activity 1.6. Support community members to take part in and benefit from employment in the release and long-term monitoring of 30 orangutan.		A total of 24 new jobs created during this project period. Currently YIARI employs 59 full-time local staff from BBRNP buffer.		<i>Continue to provide support to the communities through job opportunities in conservation-related activities in BBRNP.</i>
Activity 1.7. Run literacy and computer courses for 100 women and 120 children.		Literacy: 313 children (223 children in BBRNP and ~90 in BPF) and 26 adult women in BBRNP. Computer Training: 131 children and 17 adult women from BBRNP buffer.	<i>Attendance list and training records [Annex 4. 10]</i>	<i>Continue to provide literacy and computer classes to over 100 local children. Engage more local women in literacy and computer lessons.</i>
Activity 1.8. Award scholarships for secondary education to 20 children.		17 children currently receiving secondary education scholarship. 7 out-of-school youth training in a array of different skills through the Kahiu scholarship.	<i>Field records and photos [Annex 4. 12 and Annex 4. 25]</i>	<i>Continue to provide the scholarship to the 17 children.</i>
Activity 1.9. Provide healthcare support to ~2,000 women and men.		~3,325 people received healthcare assistance in BBR NP.	<i>ASRI Records [Annex 4. 1]</i>	<i>Healthcare will no longer be provided after our partner made the decision to interrupt its programme of work in BBRNP.</i>
Output 2. By 2024, communities feel empowered and more embedded in local natural resource governance	<i>2.1 By Q4 2021, village regulations and a development plan are socialized amongst the villagers.</i>	2.1 BBR NP: Nusa Poring Village Environment Regulation (PerDes) has been co-drafted by the active involvement of 24 community members. BPF: existing village regulations were socialized with the community through group discussions and informal gatherings, and the ‘Long-term Plan for Forest Management’ is in the process to be finalized by the Lampung Forestry Service.	Meeting minutes and attendance list [BBBRNP: Annex 4. 14] Regulation documents and banner installation [BPF: Annex 4. 13]	<i>PerDes draft were submitted to the Legal Bureau for approval. Necessary legal proceeding will be followed up. Engagement with the Lampung Forestry Service will continue for the completion of the ‘Long-term Plan for Forest Management’.</i>

<p>e through joint patrols with government authorities.</p>	<p>2.2 By Q2 2023, the core area of Batutegi is demarcated and 100% of local tenant farmers active in that area understand where the boundary is.</p> <p>2.3 By Q2 2022, joint community and forest management units carry out monthly SMART patrols inside and on the boundary of the core zone.</p>	<p>2.2. ~20% of the BPF boundary demarcated and 42% of the local tenant farmers already socialized (n=83 farmers from a total of 200 active at the border).</p> <p>2.3 A total of 93 days, 527 hours and 231 km were patrolled by the joint team, comprised of 39 active members (9 forestry police officers, 17 community members, and 13 YIARI staff).</p>	<p><i>Boundary demarcation photos and field reports [Annex 4. 16]</i></p> <p><i>SMART Patrol Data [Annex 4. 17]</i></p>	<p><i>Demarcation of the boundary will be intensified in this last Project year. Socializations will continue.</i></p> <p><i>Monthly SMART patrols will continue.</i></p>
<p>Activity 2.1. Facilitate community meetings and provide support in the drafting of community plans.</p>	<p>BBBRNP: Co-draft of PerDes through 49 meetings/ activities.</p> <p>BPF: Socialization with farmers during informal gatherings and meetings.</p>	<p><i>Meeting minutes and attendance list [BBBRNP: Annex 4. 14]</i></p> <p><i>Field reports [Annex 4. 6]</i></p>	<p><i>PerDes draft were submitted to the Legal Bureau for approval. Necessary legal proceeding will be followed up.</i></p> <p><i>Engagement with the Lampung Forestry Service will continue for the completion of the ‘Long-term Plan for Forest Management’.</i></p>	
<p>Activity 2.2. Facilitate a series of awareness raising meetings to clarify where the BPF core zone boundary sits and what will be used to demarcate it.</p>	<p>A total of 83 people from the three target farming groups were socialised at six different locations and understand now where the boundary of the core forest block sits</p>	<p><i>Field reports [Annex 4. 6]</i></p>	<p><i>Socialization with tenant farmers will continue.</i></p>	

<p>Activity 2.3. Demarcate the BPF core zone boundary with natural barriers every 50 metres.</p>	<p>The boundary is being demarcated using beringin tree (<i>Ficus benyamina</i>). A total of 388 trees have now been planted spaced 30m apart.</p>	<p><i>Boundary Demarcation records [Annex 4. 16]</i></p>	<p><i>Boundary demarcation to be finished by the end of the Project.</i></p>	
<p>Activity 2.4. Provide SMART patrol trainings for 45 tenant farmers.</p>	<p>A total of 27 farmers already trained on SMART patrolling.</p>	<p><i>No new training provided this year.</i></p>	<p><i>SMART patrol training is scheduled for 18 April 2023 with local youth community groups.</i></p>	
<p>Activity 2.5. Support monthly SMART patrol activities.</p>	<p>Monthly SMART patrols have been running.</p>	<p><i>SMART Patrol Data [Annex 4. 17]</i></p>	<p><i>Monthly SMART patrols will continue.</i></p>	
<p>Output 3. By 2024, increased local community awareness of ecosystem services, biodiversity values and risks contribute to better natural resource management.</p>	<p><i>3.1 By Q4 2022, the results of a survey on consumption of wildlife and health are discussed with respondents.</i></p> <p><i>3.2a By Q2 2023, at least 50% of target households are aware of which species are protected by Indonesian and cultural (adat) law (baseline to be established).</i></p> <p><i>3.2b By Q2 2022 80% of target farmer households and local youth groups are aware that hunting is illegal in BPF (baseline to be established).</i></p>	<p>3.1 Four FGDs carried out with 26 community representatives from 3 sub-villages in BBBRNP buffer.</p> <p>3.2a Qualitatively, nearly all community members from three target sub-villages in BBBR NP buffer know that hunting is illegal within the NP.</p> <p>Reduction by 13% in the number of hunters and loggers between 2021 and 2022.</p> <p>3.2b Target achieved. Results of the survey with farmers in BPF:</p> <ul style="list-style-type: none"> 99% of tenant farmers are aware of the applicable rules (Hunting, logging, Encroachment, etc.) 	<p><i>FGDs records [Annex 4. 19]</i></p> <p><i>As above.</i></p> <p><i>Hunters & Loggers survey [Annex 4. 18]</i></p> <p><i>Survey results [Annex 4. 22]</i></p>	<p><i>More community members will be socialized through FGDs, meetings and/or informal gatherings.</i></p> <p><i>Quantitative assessment will be carried out during the End of the Project surveys.</i></p> <p><i>Socializations with the local farmers will continue.</i></p>

	<p>3.3 By Q4 2023, 1 group of boy scouts and 3 local youth groups report greater knowledge of the benefits of biodiversity and ecosystem services (baseline to be established).</p> <p>3.4 By Q4 2023, 100 women and 120 children report greater knowledge of the benefits of biodiversity and ecosystem services (knowledge baseline to be established).</p>	<ul style="list-style-type: none"> • 10% tenant farmers report being interested in becoming Community Ranger • 52% tenant farmers report being willing to report illegal activities <p>One group of young scouts (Saka Wanabakti Batutegi group) and one groups of religious youth in Sekujang sub-village, at BBBR NP buffer, have been active in each of our target landscapes (47 youth). In BPF, 15 youth groups already engaged for the formation of the Conservation Youth Forum.</p> <p>In this past year, at least 747 children and 95 adults (39 women) were socialised about biodiversity value and ecosystem services, with the majority now displaying a moderate understanding of conservation topics and a high appreciation of the environment/forest.</p>	<p>Field reports [BBBRNP: Annex 4. 12 and BPF: Annex 4. 11]</p> <p>Photos [Annex 4. 25]</p> <p>Field reports [BBBRNP: Annex 4. 12 and BP: Annex 4. 11]</p> <p>Environmental Awareness Survey in BBBRNP [Annex 4. 23]</p>	<p>Support to the two youth groups will continue. Several activities planned to further engage the youth groups in BPF region to form the forum.</p> <p>Continue to engage children, youth and adults in both landscape in conservation understanding and action through several educational activities and events.</p>
<p>Activity 3.1. Conduct socio-economic and wildlife consumption surveys and compare to 2019 baselines.</p>	<p>Socio-economy survey with focus on hunter and loggers in the 9 target sub-villages in BBBRNP buffer carried out.</p> <p>Data on wildlife consumption and zoonosis collected through four FGDs in 2 sub-villages.</p>	<p>Hunters&Loggers survey [Annex 4. 18]</p> <p>FGDs records [Annex 4. 19]</p>	<p>Communities will be continue to be sensitized through meeting and events.</p>	

Activity 3.2. Report back the results of wildlife consumption surveys to communities.	Results were discussed with the participants during the four FGDs.	<i>FGDs records</i> [Annex 4. 19]	<i>Socializations with other community members are planned.</i>	
Activity 3.3. Hold awareness raising sessions in collaboration with religious leaders and/or village heads to clarify which species can and cannot be legally hunted.	39 villagers (8 men and 31 women) sensitized on zoonosis related to wildlife hunting and consumption by the Nusa Poring priest (YIARI's partner). Billboard installed with conservation and religious message. Support to the youth religious groups in Sekujuang in conservation actions around the village.	<i>Interfaith Programme Records</i> [Annex 4. 20]	<i>Cooperation with religious and traditional leaders will continue and a MoU is planned to be produced and signed with the church.</i>	
Activity 3.4. Hold sessions with boy scout groups, local youth groups, and women and men in target communities to explain how best to make use of ecosystem services without compromising them for future generations.	BBBR NP: After-school programme has integrated environmental learning on several educational and fun activities with local children. The programme has already engaged over 170 children. BPF: Over 430 youth in Batutegi landscape socialized on conservation topics through conservation camps and local scout group activities, the Conservation Literacy Contest with school children, events and forest festivals, etc.	<i>Field reports</i> [BBBRNP: Annex 4. 12 and BPF: Annex 4. 11] <i>Photos</i> [Annex 4. 25]	<i>Awareness raising and educational activities with local children from our two landscape will continue throughout the course of this project.</i>	
Output 4. By 2024, the Bornean orangutan population in BBR NP increases	<i>4.1 Rehabilitated (Critically Endangered) Bornean orangutans increase the existing population by at least 50% (baseline: 51 individuals) (target: 6-10 orangutan reintroduced in</i>	4.1. 69 orangutans have already been reintroduced in BBR NP (36 females and 33 males), including 10 wild translocated individuals and 59 rehabilitated orangutans at YIARI's centre. From this project's baseline of 51 individuals, the orangutan population in BBR NP has increased by 35%.	<i>Reintroduction photos</i> [Annex 4. 25]	<i>The reintroduction of 10 orangutans is planned for next year (2023-24).</i>

its viability and resilience.	2021-2022, 6-10 in 2022-2023, 6-10 in 2023-2024)			
Activity 4.1. Reintroduce and monitor 30 Critically Endangered Bornean orangutan in BBR NP.	<p>4.1 18 orangutans have already been reintroduced in BBRNP since the start of the Project.</p> <p>One orangutan born [Bumi] from a previously reintroduced female.</p> <p>Post-release monitoring has been continued.</p>	<i>As above.</i>	<i>As above.</i>	

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project Summary	Measurable Indicators	Means of Verification	Important Assumptions
<p>Impact: Large mature bio-diverse forests support healthy ecosystems and stable species populations because of increased local wellbeing, education and better health, which reduce dependence on exploitative uses of nature. (Max 30 words)</p>			
<p>Outcome: (Max 30 words) By 2024, over 200,000 ha of forest and target species are protected through sustainable, locally-led and scalable livelihoods strategies, as well as stronger governance, benefitting ~3,000 women, men and children.</p>	<p>0.1 Ten percent of households (~300 women and men) by Q2 2023 and 20% of households (~600 women and men) by Q1 2024 report a 10% increase in income (average income is 1.1 million IDR in BBBR main villages and 3 million IDR in Sumatra – 2019 survey data). <i>[In Mawang Mentatai village (n=102) 83 households [81%] are poor, in Nusa Poring village (n=138) 116 households [84%] are poor. 2019 survey data (n=240)]</i></p> <p>0.2 At least 20% of households (~600 women and men) by Q1 2023 and 50% of households (~1,500 women, men and children) by Q1 2024 report increases in non-monetary wellbeing (with at least half of increases being reported by women). Increased access to agro-biodiversity-based skills and resources, education and literacy, will be reported against pre-project levels (baseline to be established by Q1 2022).</p> <p>0.3 By Q1 2024, ~50% of Batutegi tenant farmers (~700 people) report increased involvement in forest</p>	<p>0.1 End of project household survey results</p> <p>0.2 Project participatory impact assessments</p> <p>0.3 SMART patrol reports</p> <p>0.4 Forest loss assessments using satellite imagery (Global Forest Watch) data and drones.</p> <p>0.5 Camera trap surveys; Biodiversity survey reports</p>	<p>There are no major changes to the current management structure in Provincial Forestry Services. A productive and collaborative working relationship between YIARI, the Lampung Province Forestry Service (<i>Dinas Kehutanan</i>) and the local farming groups (<i>Kapoktan</i>) is maintained.</p> <p>No significant extra pressure is placed on Forestry or NP Service staffing through unplanned events.</p> <p>Local agencies remain committed to curbing illegal activities and are willing to commit resources.</p>

	<p>governance issues (baseline to be established by Q4 2022)</p> <p>0.4 The number of illegal activities in Batutegi forest core zone is reduced by 20% (by Q2 2023) and 50% (by Q1 2024) (against a baseline of 98 incidents per year - 2019 data)</p> <p>0.5 Forest cover loss in Batutegi is reduced by 20% (by Q4 2022) and 50% (by Q1 2024) (against a baseline deforestation rate of 3.5% per year)</p> <p>0.6 Populations of threatened indicator species including Sumatran tiger (<i>Panthera tigris sumatrae</i>), sun bear (<i>Helarctos malayanus</i>), Bornean gibbon (<i>Hylobates albibarbis</i>), Sunda pangolin (<i>Manis javanica</i>) and Sunda Slow Loris (<i>Nycticebus coucang</i>) are shown to remain stable against baselines (pangolin Relative Abundance Index [RAI]: 1.45, tiger RAI: 0.15, sun bear RAI: 0.34, loris encounter rate: 1.5 individuals/km, gibbon density: 4.52 km²) in surveys conducted by Q4 2022 and Q1 2024.</p>		
<p>Outputs:</p> <p>1. By 2024, the wellbeing of ~3,000 impoverished women, men and</p>	<p>1.1 By Q4 2022, at least 3,000 seedlings of high value agroforestry</p>	<p>1.1 Seedling survival success surveys and reports.</p>	<p>Community members remain engaged in community groups surrounding BBRNP.</p>

<p>children has improved through better managed agroforestry systems, access to education (especially women and children) and employment opportunities associated with wildlife reintroductions and monitoring</p>	<p>species are planted in the multiple use zone of BT. 1.2 By Q4 2023, new jobs for at least 20 additional community members are created through the release and monitoring of ~30 orangutan. 1.3 By Q4 2023, at least 100 adult women and 120 children access to literacy and/or computer courses. 1.4 By Q4 2023, 20 students receive scholarships to pursue secondary education. 1.6 By Q4 2023, at least 180 farmers have improved capacity in sustainable agriculture and rubber production.</p>	<p>1.2 End of project household survey and YIARI Human Resource Department database. 1.3 End of literacy course feedback form. 1.4 Letters of acceptance from selected children. 1.5 End of project household survey, list of patients treated.</p>	<p>Local people re-invest benefits to support continued livelihoods improvements.</p>
<p>2. By 2024, communities feel empowered and more embedded in local natural resource governance through joint patrols with government authorities.</p>	<p>2.1 By Q4 2021, village regulations and a development plan are socialized amongst the villagers. 2.2 By Q2 2023, the core area of Batutegi is demarcated and 100% of local tenant farmers active in that area understand where the boundary is. 2.3 By Q2 2022, joint community and forest management units carry out monthly SMART patrols inside and on the boundary of the core zone.</p>	<p>2.1 Draft plan. 2.2 At least 60% of the protected forest zone has been demarcated with a natural boundary marker (stones or distinctive native shrubs). 2.3 Project reports; statistical and Human Resource reports from the forest management unit.</p>	<p>The level of commitment from the Lampung Province Forestry Service and the farming groups in Batutegi towards the joint development and implementation of a scalable livelihood strategy remains high. Mutual trust between the Lampung Province Forestry Service and the farming groups in Batutegi is upheld. Government staff trained (old and new) in the SMART approach remain in key posts.</p>

<p>3. By 2024, increased local community awareness of ecosystem services, biodiversity values and risks contributes to better natural resource management.</p>	<p>3.1 By Q4 2022, the results of a survey on consumption of wildlife and health are discussed with respondents.</p> <p>3.2a By Q2 2023, at least 50% of target households are aware of which species are protected by Indonesian and cultural (adat) law (baseline to be established).</p> <p>3.2b By Q2 2022 80% of target farmer households and local youth groups are aware that hunting is illegal in the Batutegi Protected forest (baseline to be established).</p> <p>3.3 By Q4 2023, 1 group of boy scouts and 3 local youth groups report greater knowledge of the benefits of biodiversity and ecosystem services (baseline to be established).</p> <p>3.4 By Q4 2023, 100 women and 120 children report greater knowledge of the benefits of biodiversity and ecosystem services.</p>	<p>3.1 Household surveys in target communities evaluate understanding of survey results.</p> <p>3.2 Household surveys evaluate understanding in target communities.</p> <p>3.3 Semi-structured interviews before and after involvement in project activities.</p> <p>3.4 Semi-structured interviews before and after involvement in project activities.</p>	<p>Increased awareness of legal obligations, potential benefits, and risks connected to nature degradation contribute positively to a shift in attitudes and behaviour.</p>
<p>4. By 2024, the Bornean orangutan population in BBRNP increases its viability and resilience.</p>	<p>4.1 Rehabilitated (Critically Endangered) Bornean orangutans increase the existing population by at least 50% (baseline: 51 individuals) (target: 8-10 orangutan reintroduced in 2021-2022, 8-10 in 2022-2023, 8-10 in 2023-2024)</p>	<p>4.1 Radio-tracking reports and behavioural observations.</p>	<p>Reintroduced orangutans adapt well and are able to reproduce after release in BBRNP. Hunting pressure on orangutan population remains low.</p>








Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

- 1.1 Run participatory rural appraisals to understand community needs in more depth.
 - 1.2 Provide training resources and support to successfully grow agroforestry seedlings for at least 100 women and men.
 - 1.3 Provide agricultural training (including training in Best Practices in rubber production) and market systems support to 180 women and men.
 - 1.4 Develop and implement action plans to improve production, storing, processing, packaging and selling of selected sub-sectors.
 - 1.5 Train 20 community members and 6 government officials in wildlife monitoring.
 - 1.6 Support community members to take part in and benefit from employment in the release and long-term monitoring of 30 orangutan.
 - 1.7 Run literacy and computer courses for 100 women and 120 children.
 - 1.8 Award scholarships for secondary education to 20 children.
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- 2.1 Facilitate community meetings and provide support for socialization of community plans.
 - 2.2 Facilitate a series of awareness raising meetings to clarify where the BPF core zone boundary sits and what will be used to demarcate it.
 - 2.3 Demarcate the BPF core zone boundary with natural barriers every 50 metres.
 - 2.4 Provide SMART patrol training for 10 tenant farmers and government stakeholders.
 - 2.5 Support monthly SMART patrol activities.
-
- 3.1 Conduct socio-economic and wildlife consumption survey and compare to 2019 baselines.
 - 3.2 Report back the results of wildlife consumption surveys to communities.
 - 3.3 Hold awareness raising sessions in collaboration with religious leaders and/or village heads to clarify which species are protected by national law.
 - 3.4 Hold sessions with boy scout groups, local youth groups, and women and men in target communities to explain how best to make use of ecosystem services without compromising them for future generations.
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- 4.1 Reintroduce and monitor ~30 Critically Endangered Bornean orangutan in BBBR NP.

Monitoring and Evaluation:

- End of project household surveys will be used to assess project impacts in increasing community wellbeing, reducing poverty, increasing awareness and reducing hunting of protected species.
- Camera trapping and biodiversity surveys will be used to monitor relative abundance indices and encounter rates of target endangered species.
- Global forest watch data and drone surveys will be used to monitor deforestation rates.
- Radio-tracking will be used to monitor orangutan survival after release.
- Post-training evaluation forms will be used to assess effectiveness of training and awareness raising approaches.

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 16)?	
Have you involved your partners in preparation of the report and named the main contributors	
Have you completed the Project Expenditure table fully?	
Do not include claim forms or other communications with this report.	