

Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

Note: If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2022

Project reference	28-005
Project title	Orangutan Honey – Beekeeping for Critically Endangered Orangutans and Livelihoods
Country(ies)/territory(ies)	Indonesia
Lead partner	PanEco
Partner(s)	Yayasan Ekosistem Lestari (YEL)
Project leader	Dr Ian Singleton
Report date and number (e.g. HYR1)	Half Year Report, Year 2, 31st October 2022
Project website/blog/social media	N/A

1. Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).

The following reports progress from 1st April 2022 – 30th September 2022 (Year 2, Q1 and Q2).

Progress on Outcomes and Impacts

Outcome data was monitored throughout Q1 and Q2 as per the project timetable for indicators 0.1 to 0.4 (indicators 0.5 and 0.6 will be analysed later in the project). Most indicators have continued on track in terms of data collection and analysis, occurring according to schedule and will be fully reported in the Annual Report.

Overall, the known orangutan population at Jantho now stands at 145, increasing by five individuals across Q1 and Q2 of year 2 of the project (Indicator 0.1). This is only six orangutans short of the overall benchmark of 151, to reach a viable, self-sustaining orangutan population. This is very likely to be achieved by the end of 2022/23. See Output 1 for further details.

Issues with the GLAD monitoring system (Indicator 0.4) were experienced in Q1; it was not available for most of the quarter but resumed operation as of June 8th. The team utilised deforestation data from the RADD system via Global Forest Watch during this period and used the partial GLAD data across the remaining reporting period. Deforestation alerts (22% high confidence) were reported in Jantho between 1st April -30th June, covering a total of 2 ha.

Progress on Outputs/Activities

Output 1: Rehabilitated (and translocated) Sumatran orangutans are released and monitored in Jantho Nature Reserve. Activities: Orangutan release, Daily Post-Releasing Monitoring and Orangutan Surveys.

The output is on-track. Activities have been implemented according to the project timetable. Five orangutans were released into Jantho in Q1 and Q2 of year 2. The orangutan “Mark Laklak” was released in May (Q1), while a further 4 orangutans (Binawana, Bumi, Lembang, and Rory) were released in Q2. In addition, five orangutans (Sule, Pongky, Agan, Mawasudin, and Maria)

remained present at the SOCP Jantho facility at the end of September. These orangutans await release following completion of their adaptation and forest school processes, to ensure they are ready to survive independently in the forest. In total, seven orangutans have been released so far for this project (since project start in October 2021), representing 29% of the overall project target (24) and demonstrates good progress across the first twelve months of implementation.

Post-releasing monitoring also occurred as per the project plan, with 18 different orangutans monitored on 230 different occasions, for a total of 2,052 hours of observation. This included observation of the five orangutans recently released into Jantho. The JRF also carried out orangutan surveys as part of field patrol missions and experienced 1 direct and 48 indirect encounters (i.e., finding orangutan nests).

Output 2: Jantho Nature Reserve (16,000 ha) is protected by the JRF, throughout the project term and JRF capacity is increased. Activities: Monthly patrol missions, reporting identified threats to BKSDA Aceh, and Community Ranger Training.

The output is on-track. Activities have been implemented according to the project timetable. In the first half of the project year, the two Jantho ranger teams patrolled 60 days each in total (each team completed a 10-day patrol mission per month, 12 missions in total across Q1 and Q2), covering a total area of 402 km in Jantho forest. During this period, 30 threats were identified, and reported to BKSDA Aceh. These included the presence of heavy equipment, snares and traps, presence of people (hunters and gold miners), forest fire and evidence of non-timber forest product collection. No training events were carried out during the period; this will occur in the next half of the year.

Output 3: The six¹ project communities have strengthened livelihoods opportunities, capacities and collaboration through newly established, functioning and profitable honey cooperatives. Activities: Beekeeping trials, participatory training, cooperative establishment, etc.

The output is mostly on track. Activities are on-track, or in some cases, have been completed ahead of the project timetable schedule. However, there have been some minor delays. For Activity 3.2, 230 beehives (170 *Trigona* and 60 *A. mellifera*) have been procured and distributed (200 target) to date, well ahead of schedule. In the past six months, 60 *Trigona* (stingless) beehives were distributed to the newly named *Linot Jantho* group (in Jantho Lama village group, 2nd project community) and 40 to the Fajar Lestari Nursery. Along with the 67 beehives received by the *Rumoh Linot* group (in Jantho Baru village, 1st project community) in Year 1, this brings the total beehives distributed to 167 *Trigona* beehives. Three of the *Trigona* beehives failed due to attacks by other bee species or macaques. As for the 60 *A. mellifera* (stinging) beehives, 46 were successfully rehabilitated following a wild sun bear attack and eventually these colonies improved and recovered. Honey was subsequently harvested twice in August and September. But unfortunately, 14 other beehives were destroyed in this attack. Procurement and distributions of beehives for a third community (Year 2) are planned for Q3. (See Section 2a for more information).

We would like to clarify the reported training achievements detailed in the year 1 annual report. We initially reported that 48 people had received beekeeping training alongside training in business management and operations and in the same report we also said that we wished to clarify what was possible in relation to 'certified, professional beekeeping' as per our original indicator (see year 1 annual report page 9). We realised after submitting the annual report that these 48 community members, while receiving beekeeping training as part of the wider group training activities, were not the recipients of the *specialised* training that we had originally intended (this was a reporting error). The more specialised beekeeping training, for which we have a target of 12 individuals by project end (two per community) has now begun and we are on track in terms of meeting the two individuals per community as detailed in the following

¹ In line with project planning, and activity and indicator targets, we are so far working with two project communities, and in the October 2022 – September 2023 timeframe we will initiate activities with the four additional communities

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paragraph. The more general beekeeping training is designed for the wider group members, and we will be continuing to deliver these two types of training side by side (details below).

In Q1 and Q2, four people (4 men, 0 women) from two communities were trained in the more intensive *A.mellifera* cultivation & *Trigona* cultivation and harvesting. Additionally, one person completed further in-depth training on *A. mellifera* cultivation and harvesting at a honeybee farm in Riau province. These individuals are monitoring and assisting the bee-keeping efforts across the two target communities and have supported harvesting. Members from the third community were being identified at the end of Q2.

3.3. and 3.4 are also on track. Community cooperatives continued to be supported as per the plan. The legal status of *Rumoh Linot* group (in Jantho Baru village, 1st project community) was established during Q1, supported by YEL to gain this status. The cooperative group management met with a legal notary, accompanied by YEL, and ultimately gained knowledge about on the processes required to establish community groups as legal entities. *Linot Jantho* group (in Jantho Lama village group, 2nd project community) also similarly established legal status in Q2, supported by YEL. Both groups held well-attended management meetings in Q2.

Building on the wider community beehive training, group development and business operations from year 1, the *Linot Jantho* group (in Jantho Lama village group, 2nd project community) received similar training in May 2022. This was delivered to 20 people (14 women, 6 men) centred on developing and strengthening community groups and delivered by an expert community development facilitator. The group proceeded to elect members to leadership roles (Chief, Secretary and Finance Officer; with a woman being elected to the latter position) and collectively formulated the cooperatives' organisational values (i.e. mutual respect, knowledge sharing and collaboration). Bee-keeping and cooperative establishment training for a third community (Jalin village) was also held at the end of Q2.

Cooperatives were supported with professional quality testing with honey samples to gain insights into product quality at this early stage. The *Rumoh Linot* cooperative and the Fajar Lestari Nursery had honey samples sent to an accredited laboratory managed under the Ministry of Industry. A sample from the Riau *A. mellifera* was also sent in Q2. The aim was to assess the quality of the honey produced and use the feedback to improve beekeeping operations. See Section 2.A for more details.

Output 4: YEL-owned conservation enterprise 'SumaBee' is established, the brand developed and marketed. Activities: SumaBee legality established, branding and marketing established, honey processed and packaged and online product presence.

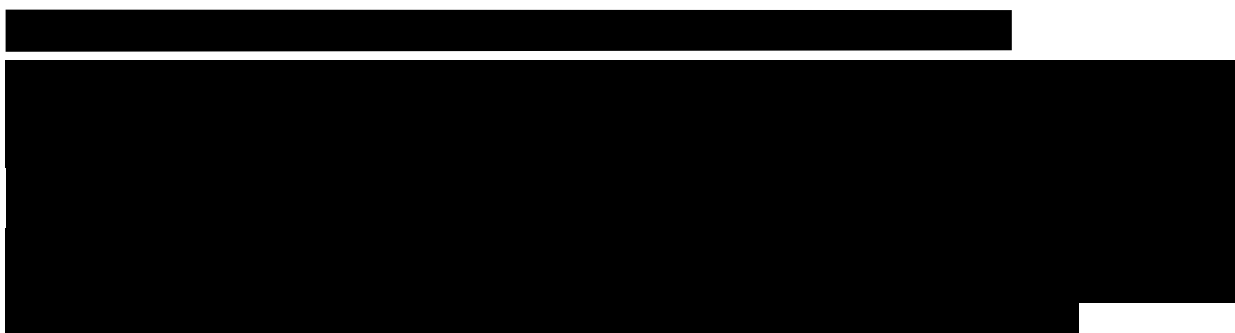
The output is on-track. Activities have been implemented according to the project timetable. YEL progressed various activities in establishing the SumaBee enterprise during the reporting period. A "SumaBee" legal entity was established at the beginning of the programme (Dec 2021) to conduct trading, registered as PT Jatari (Jantho Alam Lestari). The draft branding / logo was also designed while specific packaging designs were explored. The packaging modes were selected (glass jars/bottles) which will entail different volume options (50 ml – 250 ml). The current focus remains on selling honey in the local market, particularly as local prices for honey have been increasing (USD 25-35/kg) due to an increase in honey consumption by local communities. These local prices are much higher than the general retail market price (USD 11-15/kg). Honey quality will continue to be tested regularly. An online presence has not yet been established for SumaBee, with sales currently being limited to local markets due to price advantages as well as quality challenges.

So far, the two established groups have harvested honey, with the first group harvested twice and the second group once. On average, yields are about 100-200 ml per beehive, which is below the average stingless bee rate of 200-300 ml/per beehive. The stinging bee honey has also been harvested twice, with the volume increasing from the first (approximately 70 litres) to the second harvest (90 litres).

Output 5: The six project communities are informed and engaged in actions to protect local forest biodiversity including Sumatran orangutans, through conservation educational and awareness-raising activities. Activities: Baseline survey, Module outline structure, pre and post training surveys, educational activities, and Kemah Konservasi take place.

The output is mostly on-track. Some activities are slightly behind schedule. The baseline survey (5.1) has been carried out and completed. However, following baseline data analysis in Q1, the YEL team was concerned that the sample was not representative in terms of gender. See 2a below. The educational modules were in development and remained under review at the end of Q2. As per the project implementation timetable, the interactive module content includes the topics of ecosystem services, conservation, and sustainable use. However, the educational activities using these modules have not yet been delivered to the communities and therefore we are running slightly behind, and the team is strategizing how we can catch up before the end of the year.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.



Beehive Loss Challenges

As above, a sun bear attacked the *A. mellifera* beehives. Unfortunately, this led to the loss of 14 beehives. While 46 beehives were ultimately saved, the health of the colonies suffered initially. **Impact:** To rehabilitate the hives, they were sent to the Riau bee farm expert for restoration. Impressively, they were able to save and restore the health of 46 hives. While this initially delayed testing and harvesting of *A mellifera*, this was completed in Q2 (see honey tests below). Harvesting was able to occur twice for these hives in August and September. These issues will not impact the budget or timetable.

Honey Quality and Quantity

The Q1 honey harvested and tested at the laboratory revealed that the honey was pure and fresh, but not fully ripe and with high water content and acidity. The second samples sent in Q2 produced better results, with the acidity and water content parameters having improved. Maintaining the quality of honey to a sustainable standard value will continue to be a difficult challenge, however, as quality is affected by several uncontrollable climatic and ecological factors. Increasing the quantities of honey produced also remains a challenge. **Impact:** These quantity and quality challenges could impact the indicators relating to honey quantities yielded, purchased and the income for the communities within the project timeframe. However, it is too

soon to tell. Regular monitoring and data collection will be continued to support and determine management options and actions

Gender Participation Challenges

The project has experienced some challenges in terms of gender participation. This includes in carrying out the baselines survey (see Output 5) as well as recruiting women into the professional-level beekeeping activities. While the project team had hoped to address the baseline limitations through further data collection, they've indicated the lack of women's groups in the communities proves a barrier to gathering more representative data. More positively, the project did see the strong and enthusiastic participation of women in the wider community bee-keeping work with at least one woman elected to a leadership role (see Output 3). For instance, in Q2 bee-keeping cooperative meetings and trainings across the three community groups, 49% of the participants were women. **Impact:** This shouldn't have an impact on budget or timetable, and we are still on-track to achieve key gender-related targets. The team will continue efforts to ensure and broaden women's participation in the project.

3. Have any of these issues been discussed with NIRAS-LTS International and if so, have changes been made to the original agreement?

Discussed with NIRAS-LTS: No

Formal Change Request submitted: No

Received confirmation of change acceptance No

Change request reference if known:

4a. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this year?

Yes No Estimated underspend: £

4b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.

5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?

The Annual Report Review feedback stated: *"It is not clear that the comments in the original award letter have been addressed. Please comment on them in the half year report."* However, we do not know what comments this request from the reviewer is referring to. Please can this be clarified, and we will gladly provide a response.

There have been some staff changes on the programme; these will be detailed in an upcoming change request.

If you are a new project and you received feedback comments that requested a response (including the submission of your risk register), or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also be raised with NIRAS-LTS International through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to BCF-Reports@niras.com. The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g., Subject: 29-001 Darwin Initiative Half Year Report**