UPDATE REPORT

PROJECT TITLE : **Sumatran Songbird Conservation Programme**

ORGANISATION : **PanEco Foundation & Yayasan Ekosistem Lestari**

Project Lead Contact : Ian Singleton, Director SOCP

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Background

With support from Fondation Segre, Beauval Nature Association, the European Association of Zoos and Aquaria (EAZA) and their Silent Forest campaign, and the Durrell Wildlife Conservation Trust, the PanEco Foundation and its Indonesian partner Yayasan Ekosistem Lestari (YEL; Sustainable Ecosystem Foundation) are seeking to establish and implement the 'Sumatran Songbird Conservation Programme'.

The initial phase of this involves construction of a new captive breeding facility in North Sumatra, Indonesia, to facilitate focused captive breeding programmes for highly endangered Sumatran songbird species, in accordance with recommendations from the IUCN SSC Asian Songbird Trade Specialist Group.

The new facility will comprise 24 carefully designed aviaries to maximise potential breeding success. It will be built on the 50 ha site of the Orangutan Haven, a new conservation education project being developed by PanEco and its Indonesian partner, *Yayasan Ekosistem Lestari* (YEL, Sustainable Ecosystem Foundation), near the city of Medan, in North Sumatra, as part of their joint 'Sumatran Orangutan Conservation Programme' (SOCP).

Both PanEco and YEL implement the SOCP and all of their biodiversity conservation activities in Indonesia under Memoranda of Understanding with the Indonesian Ministry of Environment and Forestry's Directorate General for the Conservation of Natural Resources and Ecosystems (Ditjen KSDAE) and their North Sumatra regional office BBKSDA-SU.

Progress

Whilst development of the Orangutan Haven project as a whole has progressed remarkably over the last 12 months with all 9 of the orangutan islands now nearing completion, we must unfortunately report that construction of the 24 new captive breeding aviaries for Sumatran songbirds has not yet been possible, for a number of key reasons.

The main reasons for the delay are the time it took us to identify the optimal location for the aviaries within the 50 ha Orangutan Haven landscape, the time it is now taking for the soil to settle after excavation and landscaping work, and the time needed to prepare the land and to obtain necessary government approvals for construction.

Finding the best location
The Orangutan Haven site is a large undulating mosaic of valleys, slopes and ridges, mostly covered by mixed agroforest vegetation. The planned design for the aviaries was to simply copy an existing facility already built at the Cikananga Wildlife Centre (see figure 1), in Java, as this was designed with input from international experts and appears to function well.

We were therefore looking for an area of relatively flat, dry land, a minimum of 30m x 20m in extent, to allow easy movement around its perimeter, and not too overgrown with trees or other tall vegetation to optimize daylight and minimize the build-up of leaf-mold on the aviary roof. The implications of site selection for security also have to be considered as we need to try to minimise the risk of theft, of what can nowadays be extremely valuable and sought-after birds. In addition, we want the facility to be 'off-exhibit' to regular visitors to the Orangutan Haven, which immediately ruled out around 20 ha of the 50 ha Haven land that will be accessible to visitors once it is fully operational. At the same time, we needed a location that will be accessible by vehicle and can be connected to the Haven's electricity and water utility network.

Given the above criteria, the size and nature of the Haven land and the normal work commitments of key SOCP personnel, it took many months to adequately survey all potential locations for the new aviaries. It also took time to clear the vegetation manually, in potential locations to better assess their suitability (using local labour and machetes), and eventually to fully clear the chosen site and landscape it using a rented excavator. Nevertheless, this was finally achieved in October 2019 and construction was planned to start in November. but after excavating and preparing the land it was immediately clear that the soil would need several months to settle before anything could be built on it; it was not even possible to walk across it in the first 24 hours after any rain due to sinking in above the knees.

Permitting
As well as the delays due to finding and preparing a suitable site for the new facility, there are also some bureaucratic delays too. To comply with Indonesian regulations, the holding and breeding of protected species and having visitors paying to visit the site (as is planned for visitors wishing to see the orangutans that will be held there), requires the Orangutan Haven to obtain *Lembaga Konservasi* status (LK or 'Conservation Agency'), and this can only be granted after an Environmental Impact Assessment (EIA), is first completed.

This therefore represents an additional reason we have not yet been able to proceed with construction, as construction of facilities should not proceed before the EIA is completed, which we predict sometime in June. In the meantime, as the soil has now compacted and settled sufficiently, we are able to proceed with plotting the layout of the new facility and preparing the drainage system to prevent future waterlogging during heavy rains (see below).

Site preparation
The site finally selected for the new aviary facility is along a small side road from the main orangutan valley, where 9 purpose-built islands will house orangutans that cannot be released to the wild (see figure 2). The access road and the aviaries themselves will be closed and 'off limits' to visitors. It measures approximately 90 m long x 28 m wide at its widest point, with a total area of circa 0.16 ha (figure 3). Despite not being a rectangular in shape, like the Cikananga facility, it is easily sufficient to accommodate the proposed 24 aviaries, albeit in a re-arranged design (see figure 4).

Recent assessments of soil compaction suggest it is now technically possible to begin building on the land and during April 2020 we have begun marking out the footprint of the facility, along with construction of drainage channels and other structures to prevent waterlogging and erosion. Two large Durian (*Durio zibethenus*) trees that did not survive the landscaping have also been removed. The timber will be used in construction elsewhere in the Haven and the

loss of the trees themselves will be mitigated by copious tree planting. Now that the land is prepared, we are able to finalise the design of the foundations, and begin preparing them, ready for construction of the above ground structures to start immediately once the EIA is completed.

Expenses to date
In the meantime, despite the delays, there have been some expenditures since the funds were received, as shown in table 1.

Firstly, the 106 rolls of wire mesh for the aviaries themselves was ordered on 28th June 2019 and 63 rolls were shipped from Jakarta to Medan, arriving on October 10th. On receipt of this first shipment we transferred funds for the remaining 43 rolls, but these have not yet been received because a) the company's 'mesh maker' has moved to another job and b) the corona virus, meaning they have not yet been able to replace him. The cost of the mesh is by far the biggest single material cost for the project.

We are informed that 10 of the 43 remaining rolls are already made, but are waiting for them to find a solution to their staff shortage in the hope that all 43 can be shipped to Medan together at a later date. This shortfall in mesh should not affect construction, however, as we will be able to proceed with that whilst waiting, or to find an alternative and obtain a refund should they not be able to fulfil the order. Note that we are considering altering the aviary design too, since some facilities have recommended aviaries with solid walls instead of mesh, as it provides the birds an even greater sense of security. We are therefore discussing with the mesh supplier which is the most sensible option to take and will probably opt for a mixture of mesh and solid walled aviaries.

Additional expenses incurred to date include location cleaning, landscaping and the recent drainage channel, erosion barrier and tree removal, bringing the total amount spent on the aviaries as of 30th April to Euro 20,543.

We are optimistic that the combined funds already secured for the aviaries should be sufficient to construct the new unit of 24 aviaries. Once completed, additional funds will then be needed for procurement of birds and operations of the new facility (staff salaries, birdfeed, cleaning materials etc), although actual amounts have not yet been estimated.

In the long-term, it is intended that the Orangutan Haven project, in which the new aviaries will be located, will be open to the public (but not the aviaries themselves), and generate revenues that not only cover the Haven's operating costs (including the operations of the songbird breeding programme), but which can also support our wider conservation efforts throughout the region.

Projection
As noted above, the site is now ready to proceed with construction and we have been able to make a start on marking out the site for the new facility and on installing some basic drainage and anti-erosion infrastructure. This can proceed, along with the design and preparation for the foundations until we can continue with the above ground construction.

Except for the wire mesh, all materials needed can be sourced from local sources, and we continue to communicate with the mesh supplier in Java to speed up the delivery of the remaining 43 rolls, but since the mesh will be one of the very last items to be installed, we do not anticipate that this will hold up finishing of the aviaries, and alternative solutions to the mesh are available if needed.

With these points in mind, we are optimistic that we will be able to begin above ground construction in July and that the new facility could be ready to be operational around October.

Of course, will do everything in our power to achieve this, but we must also recognise that with the current CoVID 19 pandemic and considerable uncertainty regarding how it will play out in the Medan and North Sumatra region over coming months, this cannot be guaranteed.

We hope this short report clarifies the reasons for the delays in the construction of the new songbird captive breeding facility, and hence the start of the 'Sumatran Songbird Conservation Programme', and thank you very much for your understanding in these difficult times.

Ian Singleton, Ph.D.
Director
Sumatran Orangutan Conservation Programme - PanEco Foundation

APPENDIX 1: Designs, and photos

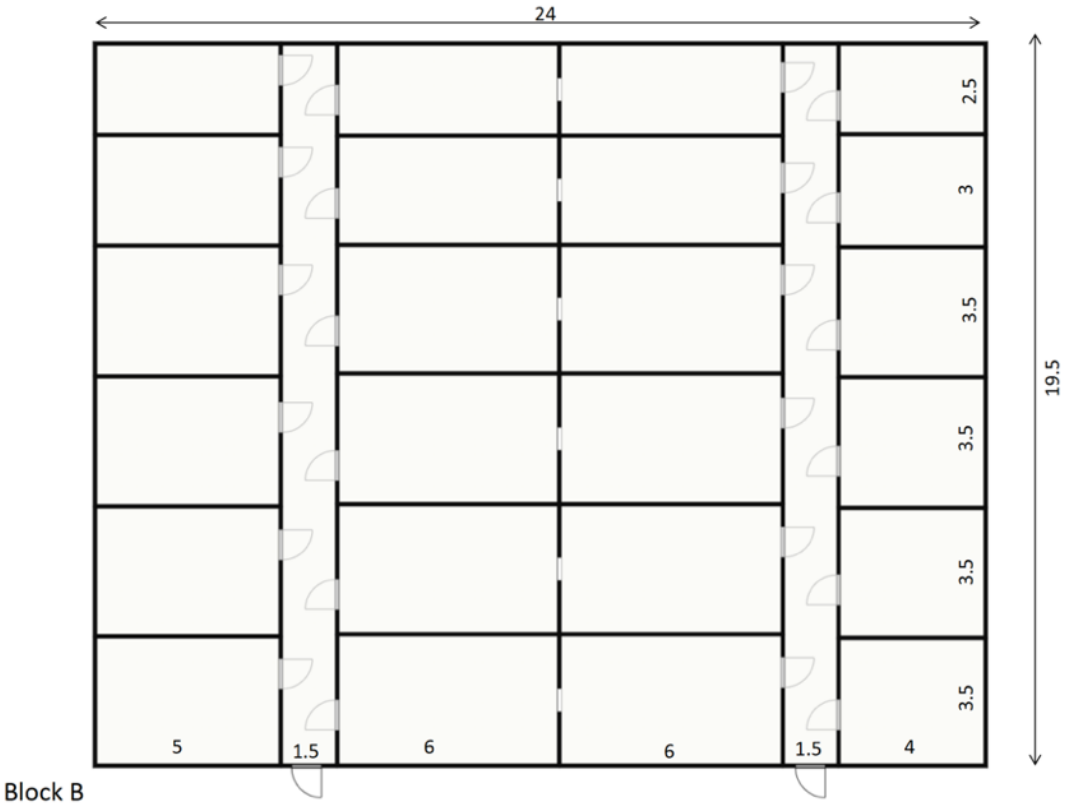

Figure 1. The layout of the aviaries at Cikananga Wildlife Centre. It was initially hoped we could find a suitable plot of land 30m x 30m in extent on which we could quickly and easily replicate the Cikananga facility.

Figure 2. Location of the aviary site within the overall Orangutan Haven, and condition of vegetation prior to landscaping. Length of site 90m, width 28m, area 0.16ha. Access road just visible north and west of the site.

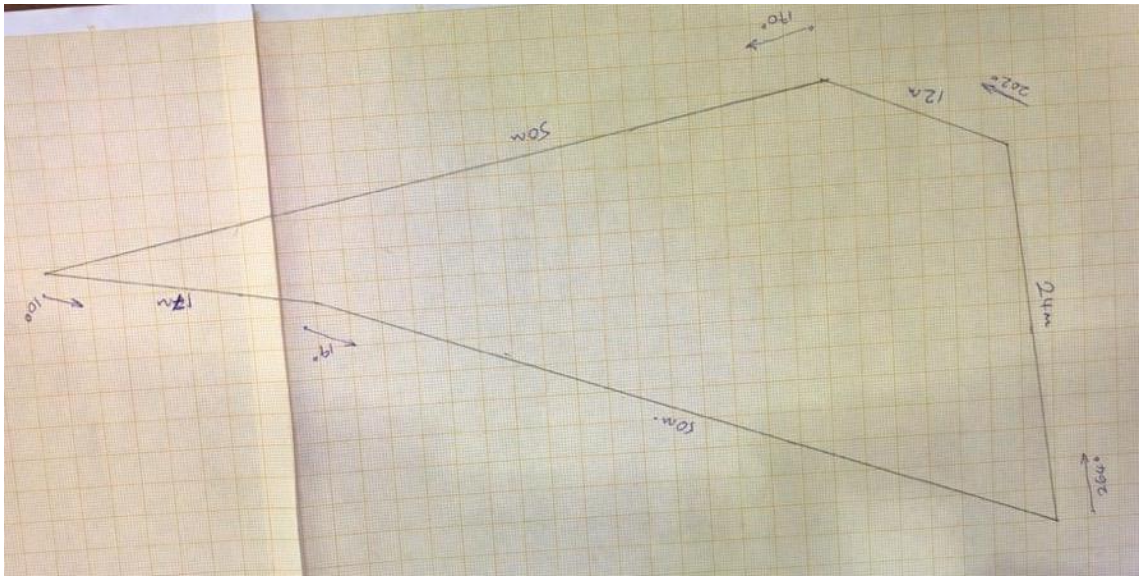

Figure 3. The dimensions of the development site for the aviaries requires adjustment of the original construction design to accommodate all of the proposed 24 aviaries and additional facilities (image oriented to correspond to figure 4).

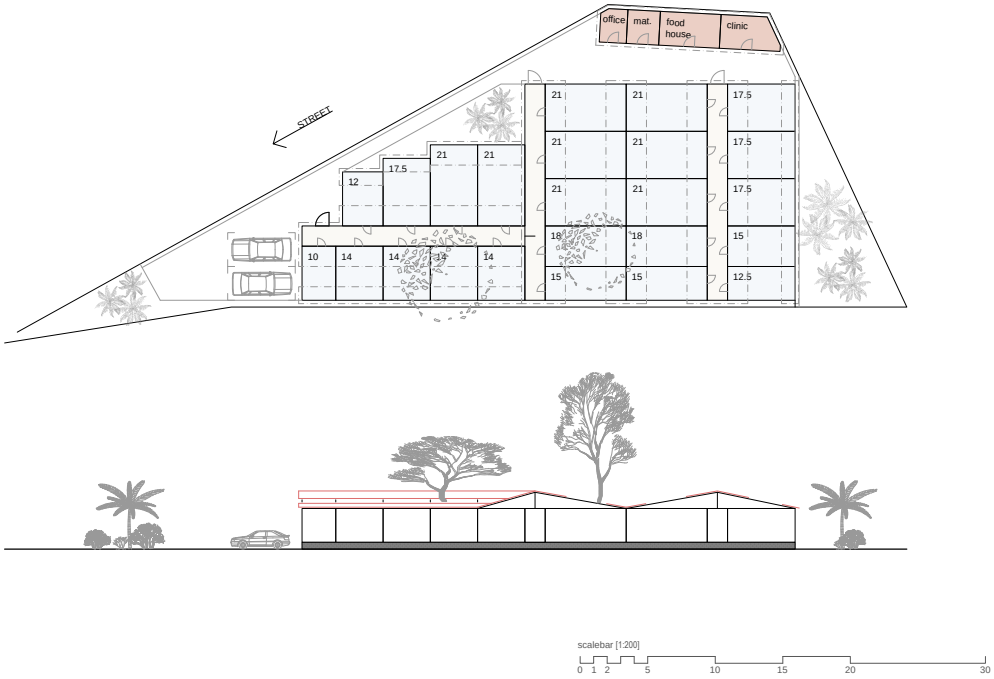

Figure 4. The new, ‘adjusted’ layout plan for the new facility, accommodating all 24 planned aviaries and additional supporting facilities.

Figure 5. The 63 rolls of wire mesh already on location

Figure 6. Finishing the landscaping, excavator still visible to the left, at bottom of the access road.

Figure 7. The newly excavated land from a lower angle.

Figure 8. At the recently cleared site, SOCP Director Ian Singleton with Simon Bruslund of the EAZA Silent Forest Campaign and IUCN SSCAsian Songbird Trade Specialist Group, November 26th, 2019

Figures 9 and 10. Ian Singleton and Asril on site, staking out the locations of the corners of the new aviary facility.

Figures 11 and 12. Views of the site for the new aviaries looking inwards from both ends.

Figure 13. The on site veterinary clinic at the north end of the orangutan valley, is likely to be more often used for the care of birds, bats and other animals than for the few orangutans that will be on site.

Figure 14. Interior of the new vet complex. Mobile holding cages will be used for birds and other species whilst being treated or in quarantine. These can be located indoors or outdoors, as required.

Figure 15. Aerial view of the entire orangutan islands valley. The aviaries will be out of shot from the bottom left. The vet clinic is at the other end of the valley, approximately top centre in this photo.

Figure 16. The central orangutan house 2 in the centre of the valley, surrounded by 4 islands.

Figure 17. Island 9 and house 4, the most advanced of the islands just needs ropes and hammocks and netting to provide shade.

Figure 18. Looking south along the moat surrounding island 8, with a dam and waterfall and island 9 (house 4) in the background

Figure 19. Looking the other way, south along the moat around island 8 with island 7 in the background and house 2 in the far distance.