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# EcosystemImpact Simeulue Songbird Bird Breeding Programme Interim Report

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**Ecosystem**  
Impact



## Wildlife Reserves Singapore Group



# 1. Project Background

Simeulue (Barusan) shama (*Copsychus malabaricus hypolizus*) and Babi (Barusan) shama (*Copsychus malabaricus opisthochra*) are classed by the IUCN Asian Songbird Trade Specialist Group (ASTSG) and European Association of Zoos and Aquaria (EAZA) Silent Forest Campaign as near-extinct subspecies.

By working with local bird breeders, EcosystemImpact will procure some of the remaining captive individuals of Simeulue (Barusan) shama and Babi (Barusan) shama and securely hold and breed them in purpose-built aviaries at Mahi-Mahi Surf Resort, Simeulue. Meanwhile EcosystemImpact continue to stay vigilant for any information or sightings of wild birds, and have gained funding from Zoologischen Gesellschaft für Arten und Populationsschutz (ZGAP) to carry out a Simeulue Islands wide survey and initiate a community monitoring and protection plan for areas discovered by this survey to be prime habitats for the translocation of birds bred in the EcosystemImpact Songbird Breeding Facility.

The expected result of this project, is that EcosystemImpact will be able to secure the survival of the Simeulue and Babi Barusan shama, by successfully purchasing, housing and breeding some of the last individuals of these subspecies. EcosystemImpact has built a set of eight aviaries for Barusan shama – the first phase of the overall project and that which has been funded here – followed by eight aviaries for Simeulue hill myna – not yet funded. Through cooperation with Sumatra Orangutan Conservation Programme (SOCP) and a number of other breeding facilities across Indonesia, EcosystemImpact aims to play a crucial role in saving these subspecies from extinction.



Figure 1. Barusan shama aviaries within garden and forest setting.

## 2. Funding

Current funding from WRS for the EcosystemImpact Songbird Breeding Facility enables:

- Barusan shama aviaries to be completed and maintained,
- birds to be acquired,
- CCTV security cameras installed,
- cockroach and grasshopper breeding to be set up, and the
- beginning of a training programme / cadetship for participants from the surrounding community to be able to look after birds.

The project component described here, and in coinciding attached budget, allows for the continuation of the WRS supported Simeulue (Barusan) shama and Babi (Barusan) shama breeding programme.

## 3. Programme Progress

### 3.1. Cockroach, Grasshopper and Maggot Breeding

Barusan shama eat primarily insectivorous diet. The recommended diet for captive Barusan shama is insectivorous pellet mix supplemented with hard-boiled egg, raw meat, insects and small amounts of fruit and boiled vegetables. As Simeulue island is a remote island location, purchasing live insects is not possible. EcosystemImpact has therefore set up cockroach, grasshopper and maggot breeding in order to produce the live fresh insects required to feed the programme's Barusan shama.



Figure 2. Boxes containing two species of cockroach and one grasshopper.

Each box contains food for the insects. To stop ants entering the boxes, they are set on stands which are placed in trays of water.

Table 1. Food Type and Daily, Weekly and Yearly Requirements

Food Source	Information	1 day	1 week	1 year
Grass hopper	5 x 1 day per bird	5	490	25,480
Cockroach	4 x 1 day per bird	4	392	20,384
Egg	1 x 1 week per bird	0.14	14	728
Maggots	5 x 1 day per bird	5	490	25,480



Figure 3. Cockroach breeding set up

The maggots are being bred within the garden compost heap. Each of these food sources was recommended by [Prigen Conservation Breeding Ark](#) – one of Indonesia’s most successful songbird breeding facilities – when the Simeulue Songbird Programme Manager visited the Breeding Ark to learn about captive bird management.



*Figure 4. One species of cockroach being bred as a food source for the programme. Although not visible in the photo, the cockroaches have bred and young have hatched.*



*Figure 5. Grass hopper breeding.*

### 3.2. Aviary Maintenance and Preparation

Maintenance work has been carried out to fully prepare the aviaries for bird arrival. In the wild Barusan shama enjoy feeding on the ground and in low forest shrubs. Each aviary has been planted with shrubbery from surrounding forests (see Figure 6). Shama are very territorial and breeding must be done carefully in order to make sure birds are introduced slowly. If birds are introduced straight away, there is a risk of rejection and fighting. In order to reduce this risk, panel doors have been fitted between each aviary. These panel doors can be fully closed, open but with a wire mesh door remaining closed, or fully open (see figures 6, 7 and 8). Females and males will then be divided in separate aviary rooms, first the doors will be half opened with the wire doors remaining closed. If the birds become interested in each other and show no signs of hostile behavior, the doors can be fully opened allowing full interaction.



Figure 6. Aviaries planted with forest undergrowth shrubbery.

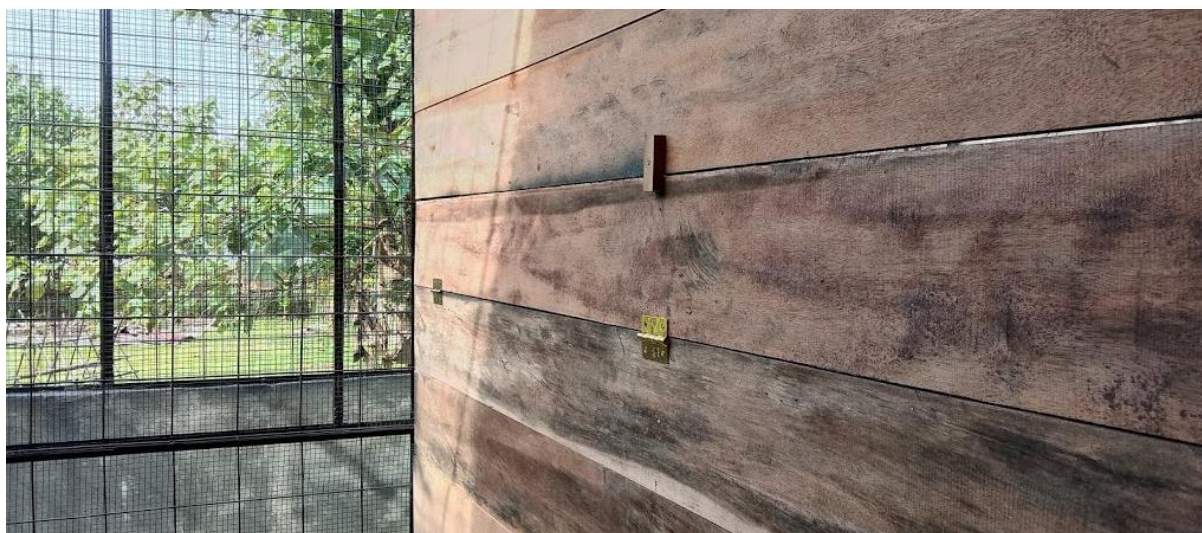
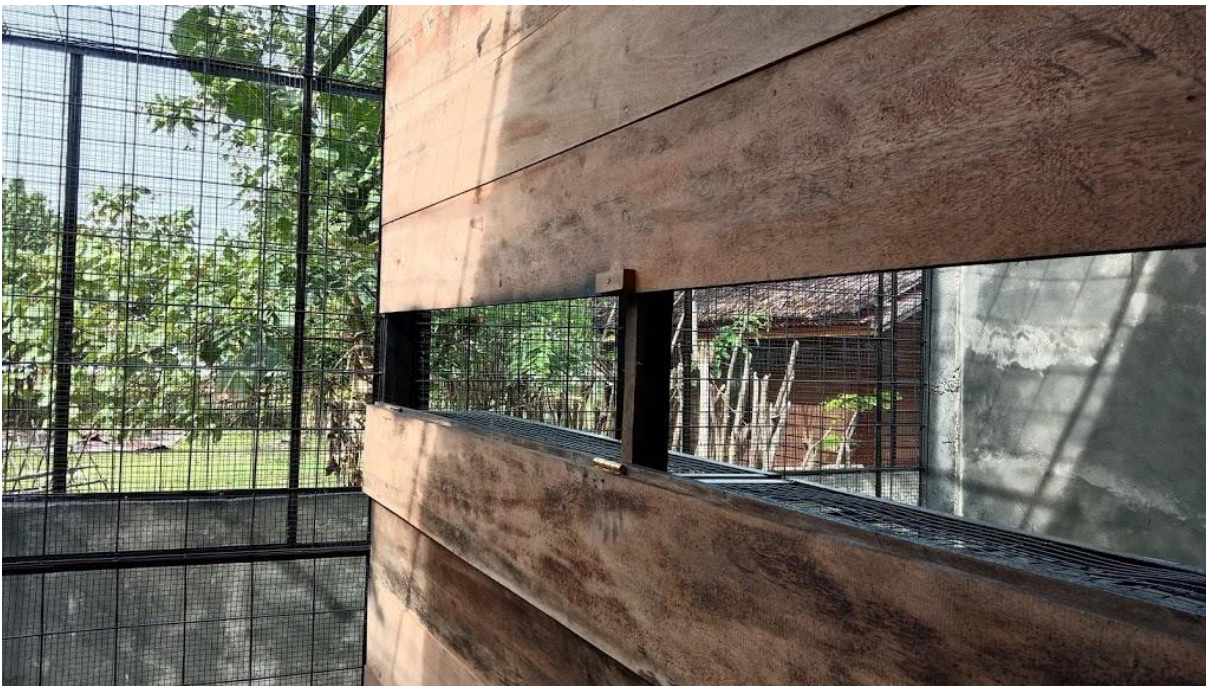


Figure 7. Aviary dividing panel doors in fully closed position.



*Figure 8. Aviary dividing panel doors in half closed position with wire door remaining closed.*



*Figure 9. Aviary dividing panel doors in fully open position.*

### 3.3. CCTV and Security

White-rumped / Barusan shama are highly desirable birds within Indonesia. The programme gained funding post-Corona, when Mahi-Mahi Resort – the resort within which EcosystemImpact operates and the aviaries are positioned – was open and had a constant guest and staff presence and 24-hour security. Currently, Simeulue island is closed to all foreign people without specific work visas, meaning Mahi-Mahi Resort is currently closed. This has meant a reduction in workforce and security. EcosystemImpact is therefore concerned that having highly prized birds unguarded, leaves the breeding programme at risk of theft.

Due to this concern, EcosystemImpact requested WRS permission to make a budget alternation of exchanging budget allocated for the purchase of two Barusan shama in order to purchase and fit a CCTV system. This request was granted and the CCTV has been fitted.

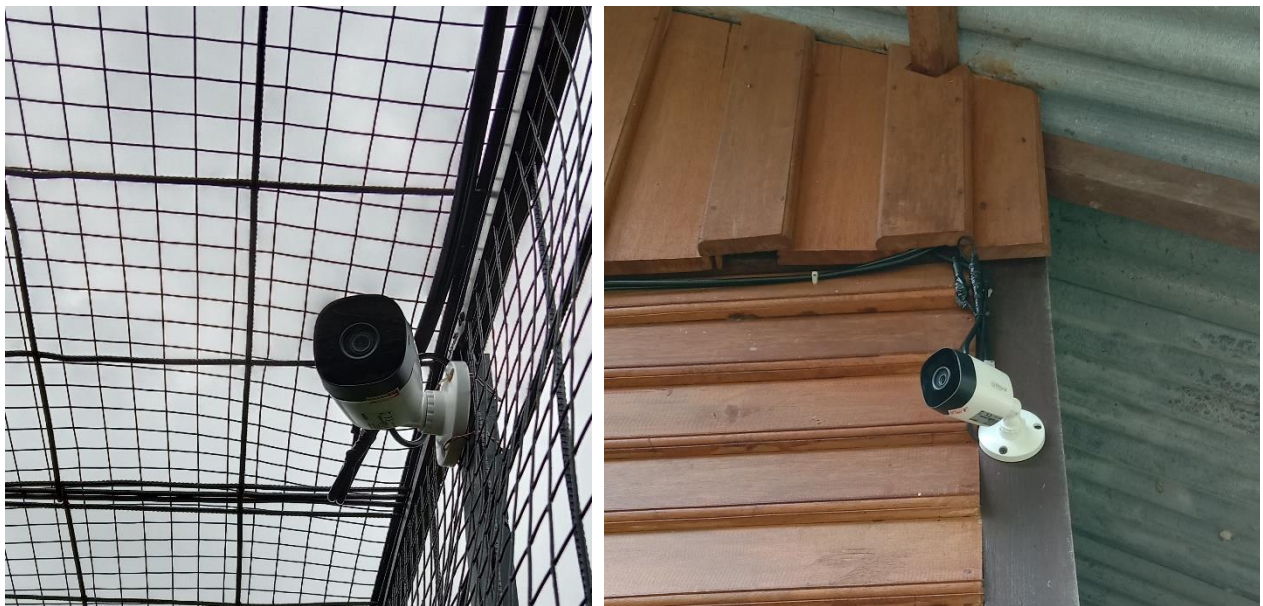


Figure 10. Aviary CCTV: left-hand secured within the aviary walkway, and right-hand on building in front of aviary.

### 3.4. Bird Acquisition and Legalities

The document which lays out the Types of Plants and Animals Protected under Indonesian law, is the Minister of Environment and Forestry's NOMOR P.106/MENLHK/SETJEN/KUM.1/12/2018. This is the latest document, brought out on 1/12/2018, which succeeded P.20 and P.92. Barusan shama continue to be classed as white-rumped shama (*Copsychus malabaricus*) within Indonesian and international law. There is no mention of white-rumped shama in P.106 – it is only in P.20, the now exempt version. Therefore, Barusan shama are not protected under Indonesian law.



The EcosystemImpact team have attended a number of meetings in person and via phone with Simeulue Government Environment Agency, members of the Simeulue Head of District Office and Balai Konservasi Sumber Daya Alam (BKSDA) Aceh (Indonesian Government Sector for Conservation and Natural Resources). These meetings have been conclusive in that to follow Indonesian law and best practice, although Barusan shama are not a protected species, a Permohonan Izin Penangkaran (Application for a Captive Permit) is required. The Permohonan Izin Penangkaran has been submitted to Lingkungan Hidup Simeulue for approval and will be submitted to provincial level government, Balai Konservasi Sumber Daya Alam (BKSDA) Aceh. Relevant WhatsApp groups have been set up, in order to be able to easily track progress and for members of each group to be able to regularly keep in contact.

Simeulue Government, Simeulue Head of District Office Environment Agency and BKSDA are very supportive of the programme and have pledged their support. The head of Simeulue the Environment Agency has visited the Breeding Facilities twice and is excited by the prospect of Simeulue developing a conservation programme dedicated to Simeulue Endemics.

The process for gaining formal government approval has taken longer than originally envisioned, but we are very happy with how the relationship with the government has been progressing. While it is frustrating that we have not been able procure birds for the aviary at this point in the programme, EcosystemImpact believe we will have full government support to do this within the next 1-2 months, and that the extra patience and commitment we have shown to relationship building at both the local and provincial level is essential for the long-term success of the program.



*Figure 11. EcosystemImpact, DHL and Kantor Bupati meeting.*



Figure 12. EcosystemImpact and Simeulue DHL Head of Conservation meeting.



Figure 13. Head of Simeulue DHL visit to EcosystemImpact Songbird Breeding Facility.

## 4. Funding Summary

Item	Quantity	Cost (SGD\$)	Cost IDR	Remaining
Male Barusan Shama Acquisition	6	1,886	19,803,000	19,803,000
Female Barusan Shama Acquisition	6	1,371	14,395,500	14,395,500
Food and Maintenance	6 Months	900	9,450,000	7,895,000
Staffing	6 months	4,300	45,150,000	17,150,000
CCTV and Fitting	2 Unit and Fitting Fee	543	5,701,500	1,581,500
Sub Total		<b>9,000</b>	<b>94,500,000</b>	
Project Administration*		1,000	10,500,000	10,500,000
Total		10,000	105,000,000	
<b>Total Entered EI Bank</b>			<b>105,490,000</b>	<b>71,325,000</b>