



# **Annual Report**

***June 2016 – May 2017***

**Cikananga Conservation Breeding Centre**

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**Yayasan Cikananga Konservasi Terpadu**

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## Introduction

Cikananga Conservation Breeding Centre (CCBC) is one of the two branches of Yayasan Cikananga Konservasi Terpadu (YCKT), created in 2007, after a decision to implement *ex-situ* and *in-situ* programmes for Endangered Indonesian animals.

Currently, CCBC houses 5 bird species, endemic to Indonesia: the Critically Endangered Black-winged Myna (*Acridotheres melanopterus*), the Critically Endangered Javan Green Magpie (*Cissa thalassina*), the Critically Endangered Rufous-fronted Laughingthrush (*Garrulax rufifrons*) and the Endangered Sumatran Laughingthrush (*Garrulax bicolor*). The fifth species is the Spectacled Laughingthrush (*Rhinocichla mitrata*) which is not of Conservation concern so far and was used to practice on the breeding requirement of *Garrulax* species before acquiring more sensitive species, such as the Rufous-fronted Laughingthrush. CCBC also housed the Endangered Javan Warty Pig (*Sus verrucosus*) for safety net in terms of genetics and future Reintroduction.

CCBC also managed one *in-situ* programmes: the Reintroduction of the Black-winged Myna. The programme started in 2012 with a release attempt in Cikananga and continued in 2013 in the Halimun Salak National Park (the release site being situated in the Pongkor Gold Mine) and Rawadanau Nature Reserve. All release sites are situated in West Java since CCBC is breeding the West Javan species.

The present report summarizes the last financial year, from June 2016 until May 2017 with a review of the objectives and budget.

## CCBC Team

In June 2016, an interim Field Biologist was hired 10 days per month to continue the *in-situ* projects for the Black-winged Myna until someone is found to overtake the full position. After 5 months, the interim person (Arfah Nasution) was hired as full-time Field Biologist for CCBC.

In August 2016, Renaldi Vernia resigned from his position of Education Officer to start again his study. In October 2016, a new full-time Education Officer was hired: Ade Imansyah who is taking over the Education and Awareness Programmes for the Black-winged Myna Reintroduction.

Despite intensive search, a live food keeper could not be found for this year and the duty of live food keeping was done by the interns/keepers and curator.

## Sponsors

During this year, many sponsors supported CCBC, for both *ex-situ* and *in-situ* programmes. New sponsors also joined the programme this year with contribution to the birds and pigs husbandry.



Here is a non-exhaustive list of the last year sponsors (alphabetically):

- AfdPZ (French Zoo Association)
- Chester Zoo (equipment donation and funding)
- Colombus Zoo
- Heidelberg Zoo
- Los Angeles Zoo
- Lyon Zoo (equipment donation)
- Mohamed Bin Zayed Species Conservation Fund
- Montpellier Zoo
- PT. Antam Pongkor Gold Mine
- Puy-du-Fou Zoo
- The Rufford Foundation
- Waddesdon Manor Aviary/ The Rothschild Collection
- Wildlife Reserves Singapore
- Wroclaw Zoo
- Zoological Society of London
- Zoologische Gesellschaft für Arten –und Populationsschutz e.V. (ZGAP)

CCBC has also a partnership with Chester Zoo running since March 2015 and includes technical advice and guidance on different projects (Husbandry, Medical and Reintroduction).

## Review of the last year objectives

### Breeding Centre

- 1) Continue the breeding of the species present in CCBC

The objective was to continue to build up the captive population for the 5 bird species and 1 pig species in CCBC. The following table presents the inventory and events for the targeted species:

Species	Population size on 01/06/16	Nb of birth	Nb of death (chicks/ not weaned pigs)	Nb of death (adult)	Nb of acquisition	Nb of disposition	Population size on the 10/05/17	Trend
Black-winged Myna	27.29.0 (56)	11	4	4	11	0	31.34.5 (70)	↗
Javan Green Magpie	9.11.0 (20)	6	0	3	0	0	9.10.4 (23)	↗
Rufous-fronted Laughingthrush	9.7.1 (17)	0	0	5	1	0	6.7.0 (13)	↘
Sumatran Laughingthrush	16.12.1 (29)	3	0	6	0	0	16.7.3 (26)	↘
Spectacled Laughingthrush	9.4.0 (13)	0	0	1	0	0	9.3.0 (12)	↘
Javan Warty Pig	19.20.1 (40)	4	4	7	0	6	13.14.0 (27)	↘
<b>TOTAL</b>	<b>175</b>	<b>24</b>	<b>8</b>	<b>26</b>	<b>12</b>	<b>6</b>	<b>171</b>	↘

Table 1: Inventory of the animals in CCBC from June 2016 to 10<sup>th</sup> of May 2017 with the population size trend

The population size in CCBC showed fluctuation depending on the species:

- *Black-winged Myna*: The breeding of the Black-winged Myna was still problematic during the last financial year because of a lack of enough genetic diversity within the CCBC captive population, leading to an inability to create breeding pairs. Until the beginning of 2017, no Myna could be acquired because of a lack of space during the construction of the new building. In February 2017, 11 Black-winged Mynas arrived from confiscation and, at the date of the report, they moved to CCBC to create new pairs with the CCBC birds. With this new arrival, the population of myna grew in CCBC and more breeding is expected.

- *Javan Green Magpie*: The number of Javan Green Magpie increased in CCBC compared to the last financial year. Although the construction of the new building stopped the breeding of this species because of a lack of available breeding aviaries, the Javan Green Magpie started to breed again once they were housed in the new building. However, pairing is still problematic

because of many funders that were exported, leading to a decrease of the genetic diversity in CCBC. There is a need to acquire new funders.

- *Rufous-fronted Laughingthrush*: While the population of Rufous-fronted Laughingthrush was flourishing last year, CCBC had to face a disease outbreak in October 2016 that was responsible for the death of many birds from this species. They were all housed in one of the remaining building where the condition is deteriorating over time, causing issues for the health and safety of the birds. After the disease outbreak and to protect the small number of Rufous-fronted Laughingthrushes left in CCBC, all the birds were moved to the new building with higher hygiene level. With the acquisition of one new bird and the plan to acquire more, it is hoped that the breeding of the Rufous-fronted Laughingthrush will start again at the next breeding season (July/August 2017).

- *Sumatran Laughingthrush*: This species also faced the consequences of the disease outbreak in October when many adults died. Because of the lack of genetic diversity for this species in CCBC, pairing birds was difficult and breeding started slowly after the new building was finished.

- *Javan Warty Pig*: the population decreased significantly because of translocation of pigs to Taman Safari Indonesia and few breeding. Many deaths occurred in August 2016, touching mainly juveniles with a gradual paralysis of the hind legs and death. Unfortunately, the involvement and competency of labs in Java is minimal and none of them were willing to test or provide results. Stronger collaboration with labs were made after this event to prevent missing information in the future.

The animals in CCBC continued to be managed via local studbook and appropriate software (ZIMS, PMx) to allow suitable pairing and increase the genetic diversity. In March 2016, the WAZA Committee for Population Management approved the International Studbook for the Black-winged Myna and Anais Tritto is the studbook keeper. This International Studbook will help in the development of a global captive breeding for this species with a focus on the purity of each individual. The first International Studbook was sent in May 2017 for its publication and dissemination to the studbook holders and relevant stakeholders.

## 2) Housing and Husbandry

The development of high-standard Housing and Husbandry continued for the species housed in CCBC. The biggest achievement of this financial year is the completion of the new building "Block B". The project started in May 2016 with the destruction of the old building and finished in October 2016 with the move of the birds into their new breeding aviaries. This building, in addition to provide bigger breeding aviaries, was designed to be completely pest-proof with deep foundation and long-lasting materials such as thick wire mesh, metal frame and concrete. The purpose of this building was also to increase the security of the birds with materials that cannot be easily destroyed by potential thieves. To date, two Black-winged Mynas and two Javan Green Magpies hatched into this new building and the team hopes that the coming breeding season for the Black-winged Myna (usually around July/August)

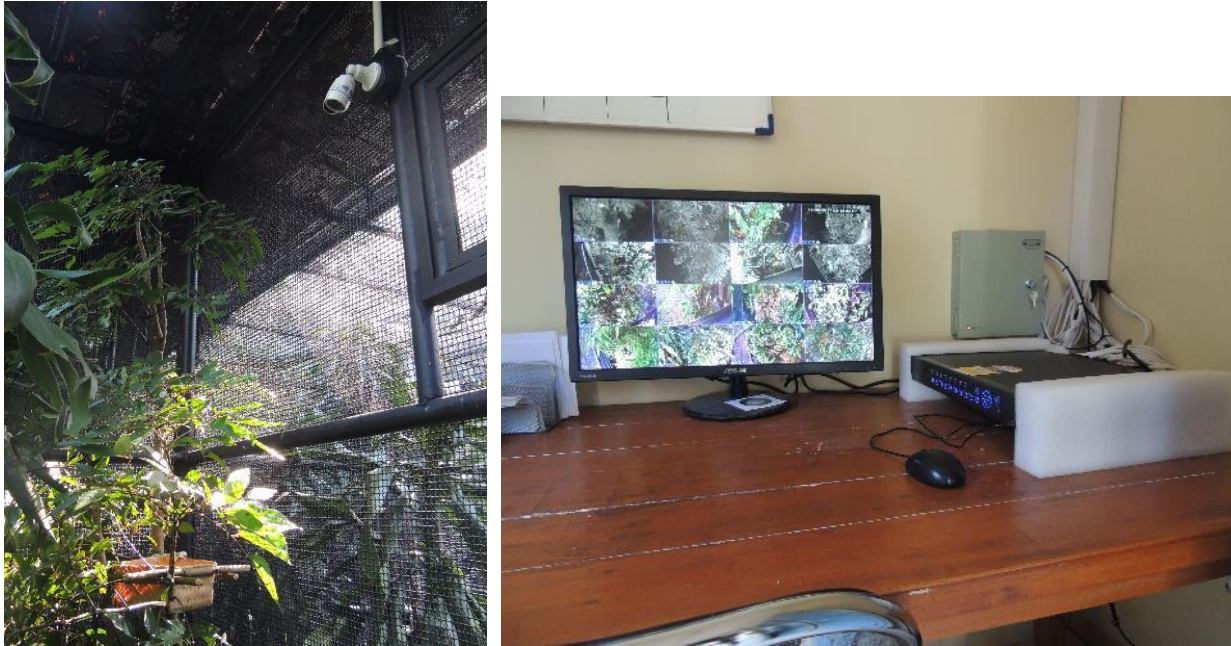
will have stronger results into these newly designed aviaries. Moreover, in April 2017, the building was equipped with 17 nest cameras to monitor the breeding of the magpies and laughingthrushes without creating disturbance around the nest.



Picture 1: The new building replacing the old “Block B” and one of the breeding aviaries



Picture 2: First Javan Green Magpie fledgling from the new “Block B”



Picture 3: CCTV in the breeding aviary to record breeding and CCTV system in the office room

In addition, the project included the construction of a keeper building to increase the biosecurity measures and limit disease transmission between inside and outside CCBC. The keeper building includes a kitchen, clinic, office/keeper cloakroom, a material room and a shelter for the security dogs.



### 3) Health management

In October 2016, CCBC faced a big disease outbreak within the bird population that unfortunately touched mainly the Rufous-fronted Laughingthrush. In 3 weeks, 5 Rufous-fronted Laughingthrushes died without showing any previous clinical signs, following by the death of 2 Sumatran Laughingthrushes and 2 other Sumatran LTs in January 2017. Immediately after the first deaths, the bird breeding centre was

put under strict quarantine measures to avoid contamination to other animals. Inside the breeding centre, the biosecurity was increased to its maximum to limit contamination to the other birds. Despite all the efforts to understand the reasons of these sudden deaths, the team was not able to point a precise disease. It is mainly due to the limited access to labs in Java and their low knowledge into avian medicine. However, some assumptions were made, the first one being the crickets received from the market and the previous husbandry condition for the live food. To counteract any further health issues, the cricket husbandry in CCBC was reviewed and the cricket breeding was taken over by the curator and the intern to review the current protocols and increase the production to limit the number of crickets coming from the markets and being fed to the birds.

Moreover, the communication and relationship with one lab in Bogor was improved to allow a faster response from the lab after it receives samples and a bigger involvement of the lab to look for potential bacteria/fungi/virus that are not known from the lab. The current PPSC vet made a very strong contact with the diagnostic manager of the lab who is willing to do further testing in all the samples sent to better understand the cause of death. The communication and results from this lab improved significantly and more information was received in the last months.

#### 4) Cricket breeding

Until recently, the cricket breeding in CCBC was underestimated and kept to a minimum level, leading to a regular purchase of crickets from the market and potential disease being brought to CCBC. In March 2017, Anais Tritto (Curator) and Jonathan Beilby (intern) took over the cricket breeding in the purpose to increase the productivity. The protocols used by the keepers were reviewed and adapted; and the cricket breeding room was rearranged to maximise the used space. In few weeks, thousands of crickets hatched and are currently still hold in the breeding room until they become big enough to be fed to the birds. To date, the number of cricket produced is not enough to cover the need of CCBC, especially when chicks are in the nest. Now that the new protocol seems to give promising results, the breeding of crickets will increase until it reaches a suitable number.

#### 5) Creation of satellite colonies for valuable species

On the 17<sup>th</sup> of June 2016, the team of Taman Safari Indonesia came to CCBC to translocate 6 Javan Warty Pigs to their institutions. Unfortunately, 2 pigs died during transport, likely due to the transportation condition, the initial pig condition (nutrition-related issues) and the use of tranquilizers. To prevent any more death during transport, suitable transport boxes will be built in CCBC and the transportation protocol will be reviewed and adjusted. The four other pigs arrived safely in TSI and contribute to the preservation of this species through captive breeding.



## **Black-winged Myna Reintroduction Programme**

### **1) PT. Antam Pongkor Gold Mine release site**

As explained in the last Annual report, the condition of the release site in Pongkor deteriorated because of an ownership change from the Antam Pongkor Gold Mine to the National Park. In the past, the strong collaboration and involvement of the gold mine company in the programme ensured the safety of the released birds. Unfortunately, when the release site was handed over by the National Park, protection of the birds significantly decreased despite the will of CCBC to have the National Park team working for the programme. Most of the birds were intensively trapped and the population decreased until 8 individuals. From this moment, it was decided to stop the programme. However, to not completely leave the remaining birds, it was decided to hand-over the programme to the National Park and monitor how they are running it. The team could go back to Pongkor in December 2016 where 7 birds were sighted included new juveniles. CCBC Team agreed with the National Park to come back regularly to assess on the population. Moreover, the gold mine company proposed a new MoU with CCBC to help the team to make the link with the National Park. The MoU is currently under review.

### **2) New release site for the Black-winged Myna Reintroduction Programme: Cikananga**

After visiting few potential release sites, it was decided to assess the potential of Cikananga area for a future release of Black-winged Myna. The Habitat Assessment started in June 2016 on a radius of 3km around CCBC. The Habitat Assessment is performed by the new Field Biologist who monitor the food availability, presence of natural competitors or predators and potential nesting availability. In parallel, the new Education Officer started in November a socialisation programme with local people in the area and schools. The Education Officer is currently evaluating the initial mind-set of people regarding bird keeping, bird catching and Conservation; and he will start the proper socialisation and awareness programme in July 2017. The Education Officer is also assessing the catching pressure in the area.

Although the habitat looks suitable for a population of Black-winged Myna with large food availability, the high density of cats could be the worrying points and discussion are still under progress on how to limit this threat. The catching pressure is also high as long as the hobby of killing birds with air riffles. Bird catchers or hunters are mainly coming from outside the nearby villages so a strong Education Programme will be developed to ensure that the community is involved in the protection of the released birds. Moreover, bird ambassadors will be named in each village to increase the involvement of the local people and the security of the birds.

## Projects for the new financial year

In addition to the objectives of continuing to breed the species housed in CCBC and maintaining the welfare, health and husbandry to the highest level, few projects will be developed:

- *Refection of the pig kitchen*

The pig kitchen is more and more deteriorating due to the use of perishable material, leading to an inability to appropriately store the food (increasing the rat population) or cleaning the equipment for the pigs (health/hygiene issues). The project will start in July using the remaining funding from the financial year 2016/2017 and is expected to be finished at the end of July 2017.

- *Creation of a corridor to move the Javan Warty Pigs between enclosures*

After the refection of the pig kitchen, the design of the breeding enclosures will be refined, especially the procedure to move pigs. Indeed, to move the pigs from one enclosure to another, the pigs have to be gently pushed to a small door where they will go to the next enclosure. Moving pig is very sensitive because they are prone to leg injuries and they can easily injure themselves if they feel in danger (for instance running to the walls). If the pigs have to be moved from one side of the area to another (for instance creating new couples or moving the sow to the enclosure where she will give birth), the pigs have sometimes to move through 4-5 different enclosures, bringing more chance to get injured. The project will be to build a corridor along all the enclosures with trap doors that will link the corridor to the enclosures or close the corridor in some specific points. When a pig will have to move, it will be gently pushed to the corridor then guided until the next open trap door, leading to the final enclosure. It is hoped that stress will be minimized as long as injuries.

- *Construction of long-lasting quarantine cages*

In 2015, a quarantine building was created to allow the birds to be screened before they are entering CCBC. Along the years, the cages (made of mesh and iron) became rusty and broken because of the regular use of water for cleaning. The roof was also recently broken by branches falling on it and the lack of mesh on the top is a risk of escaping and rat entering. This project will repair the roof of the quarantine and installing a mesh as ceiling to prevent escape or rat intrusion (the mesh will be similar as the one from Block B). Seven cages will be made of concrete and tiles that allow a better cleaning and long-lasting. The higher number of cages will allow the team to acquire more birds or to separate the birds in case they are fighting and prevent any unwanted deaths.

Because of this full building is shared between the mice breeding and the quarantine and all the roof has to be changed, funding will be taken from the remaining of the financial year 2016/2017, from the budget of both quarantine and mice breeding.

- *Refection of the new bird building*

After the completion of Block B, the next building should start as soon as funding are available. Indeed, the condition of this building named "PKB up" is deteriorating over the time and led to health issues in



October 2016 with a big disease outbreak. The high number of deaths in the building forced the CCBC team to move all the birds from this building to prevent any other deaths. Consequently, the number of available breeding aviaries decreased significantly. The new building is redesigned with 16 big breeding aviaries, based on the design of Block B. The design is currently complete and the transfer of fund is awaiting.

## Budget and expenses of the period June 2016 – May 2017

A budget file will be sent to all sponsors individually with the details of expenses depending on the funding provided by the sponsoring organization.

Description		Total received (IDR)	Total spent (IDR) End of May 2017 (estimation for the last month)	Balance (IDR)	Balance (EUR)	Balance (GBP)	Balance (USD)	Balance (SGD)
<b>Husbandry</b>								
Feeding	Black-winged Myna 100 ind	36,000,000	27,109,940	8,890,060	621.7	526.0	658.5	916.5
	Laughingthrush 81 ind	25,021,188	23,168,261	1,852,927	129.6	109.6	137.3	191.0
	Javan Green Magpie 30 ind	36,000,000	25,138,149	10,861,851	759.6	642.7	804.6	1,119.8
	Javan Warty Pig 45 pigs	179,975,000	85,294,400	94,680,600	6,621.0	5,602.4	7,013.4	9,760.9
Breeding live food	Crickets, mice, mealworms, eels	15,000,000	8,286,615	6,713,385	469.5	397.2	497.3	692.1
Transportation to town for shopping		2,600,000	2,527,868	72,132	5.0	4.3	5.3	7.4
<i>Sub-total</i>		<i>294,596,188</i>	<i>171,525,233</i>	<i>123,070,955</i>	<i>8,606.4</i>	<i>7,282.3</i>	<i>9,116.4</i>	<i>12,687.7</i>
<b>Medical care</b>								
Medicine	All species	18,886,488	9,725,275	9,161,213	640.6	542.1	678.6	944.5
Veterinarian	All species	30,000,000	16,800,000	13,200,000	923.1	781.1	977.8	1,360.8
Necropsy/Lab	All species	15,010,000	13,341,000	1,669,000	116.7	98.8	123.6	172.1
Quarantine	Bird species	10,200,000	243,900	9,956,100	696.2	589.1	737.5	1,026.4
DNA Analysis	Black-winged Myna	3,000,000	0	3,000,000	209.8	177.5	222.2	309.3
Sexing birds	Bird species	15,000,000	12,618,820	2,381,180	166.5	140.9	176.4	245.5

Biosecurity measures	All blocks	11,436,156	10,998,425	437,731	30.6	25.9	32.4	45.1
<i>Sub-total</i>		<i>103,532,644</i>	<i>63,727,420</i>	<i>39,805,224</i>	<i>2,783.6</i>	<i>2,355.3</i>	<i>2,948.5</i>	<i>4,103.6</i>
<b>Breeding facilities</b>								
New building	Block B	864,119,220	864,119,220	0	0.0	0.0	0.0	0.0
Equipment for new building		64,251,503	58,947,350	5,304,153	370.9	313.9	392.9	546.8
Maintenance of the current facilities	Aviaries	4,050,000	4,050,000	0	0.0	0.0	0.0	0.0
	Pig enclosure	20,000,000	5,422,000	14,578,000	1,019.4	862.6	1,079.9	1,502.9
	Building transport box	7,000,000	0	7,000,000	489.5	414.2	518.5	721.6
Equipment	Bird species	17,126,875	15,225,730	1,901,145	132.9	112.5	140.8	196.0
Dog food		18,600,000	10,995,430	7,604,570	531.8	450.0	563.3	784.0
Rescue birds in bird market	Javan Green Magpie/ Rufous-fronted Laughingthrush	1,809,000	2,000,000	-191,000	-13.4	-11.3	-14.1	-19.7
Getting new black-winged mynas	Increase captive genetics	15,000,000	0	15,000,000	1,049.0	887.6	1,111.1	1,546.4
Security	Maintenance	8,000,000	2,751,000	5,249,000	367.1	310.6	388.8	541.1
<i>Sub-total</i>		<i>1,019,956,598</i>	<i>963,510,730</i>	<i>56,445,868</i>	<i>3,947.3</i>	<i>3,340.0</i>	<i>4,181.2</i>	<i>5,819.2</i>
<b>In-situ programmes</b>								
Black-winged Myna Reintroduction Programme	Monitoring Pongkor	7,063,028	1,920,000	5,143,028	359.7	304.3	381.0	530.2
	Education Programme							
	Cikananga release	51,600,000	3,006,305	48,593,695	3,398.2	2,875.4	3,599.5	5,009.7
	Habitat Assessment Cikananga release	28,920,000	18,573,050	10,346,950	723.6	612.2	766.4	1,066.7
	Administration	10,000,000	2,823,600	7,176,400	501.8	424.6	531.6	739.8
	Equipment	11,950,080	925,460	11,024,620	771.0	652.3	816.6	1,136.6
	Visit to potential sites	20,000,000	0	20,000,000	1,398.6	1,183.4	1,481.5	2,061.9
Training		19,279,600	350,000	18,929,600	1,323.7	1,120.1	1,402.2	1,951.5

Research	Visit of sites Javan Green Magpie	74,212,485	0	74,212,485	5,189.7	4,391.3	5,497.2	7,650.8
	Visit of bird markets	2,834,000	0	2,834,000	198.2	167.7	209.9	292.2
<i>Sub-total</i>		<i>225,859,193</i>	<i>27,598,415</i>	<i>198,260,778</i>	<i>13,864.4</i>	<i>11,731.4</i>	<i>14,686.0</i>	<i>20,439.3</i>
<b>Administration</b>								
Curator salary	1 curator (including 13th month)	156,000,000	156,000,000	0	0.0	0.0	0.0	0.0
Curator working permit	permit period 2016/2017 (extra cost)	8,920,000	8,920,000	0	0.0	0.0	0.0	0.0
	permit period 2017/2018	25,000,000	25,000,000	0	0.0	0.0	0.0	0.0
Field Biologist salary	1 interim biologist until August (10days/month) then full time position	27,495,600	27,495,600	0	0.0	0.0	0.0	0.0
Education Officer + Reintroduction Coordinator Salary	1 officer (including 13th month)	36,400,000	36,400,000	0	0.0	0.0	0.0	0.0
Keeper salary	2 bird keepers (including 13th month)	37,200,000	37,200,000	0	0.0	0.0	0.0	0.0
	1 pig keeper (including 13th month)	21,025,000	21,025,000	0	0.0	0.0	0.0	0.0
	1 replacement keeper (including 13th month)	20,150,000	20,150,000	0	0.0	0.0	0.0	0.0
	1 Head keeper (including 13th month)	24,925,000	24,925,000	0	0.0	0.0	0.0	0.0
	1 live food keeper (including 13th month)	11,535,000	0	11,535,000	806.6	682.5	854.4	1,189.2

Salary security guard	1 guard	15,175,000	15,175,000	0	0.0	0.0	0.0	0.0
Participation to salary PR Officer	including 13th month	1,950,000	1,500,000	450,000	31.5	26.6	33.3	46.4
Intern expenses cover	1 intern (1 year)	52,800,000	16,800,000	36,000,000	2,517.5	2,130.2	2,666.7	3,711.3
Insurance for staff	Basic Health Insurance 8 people	24,000,000	24,000,000	0	0.0	0.0	0.0	0.0
Breeding license		25,000,000	25,000,000	0	0.0	0.0	0.0	0.0
Administration costs		12,768,600	12,768,600	0	0.0	0.0	0.0	0.0
Contribution for supporting facilities		12,000,000	12,000,000	0	0.0	0.0	0.0	0.0
Meeting, visit zoos		17,222,000	20,351,150	-3,129,150	-218.8	-185.2	-231.8	-322.6
ISIS Membership		7,500,000	7,189,155	310,845	21.7	18.4	23.0	32.0
Car maintenance		12,000,000	12,000,000	0	0.0	0.0	0.0	0.0
Car insurance		6,000,000	6,000,000	0	0.0	0.0	0.0	0.0
EAZA Conference	1 person	15,100,000	15,100,000	0	0.0	0.0	0.0	0.0
<i>sub-total</i>		<i>570,166,200</i>	<i>524,999,505</i>	<i>45,166,695</i>	<i>3,158.5</i>	<i>2,672.6</i>	<i>3,345.7</i>	<i>4,656.4</i>
<b>TOTAL</b>		<b>2,214,110,822.92</b>	<b>1,751,361,303</b>	<b>462,749,520</b>	<b>32,360.1</b>	<b>27,381.6</b>	<b>34,277.7</b>	<b>47,706.1</b>

**Table 3:** Summary of the funding available for the period June 2016-May2017, the expenses during this period and the remaining funding (1 GBP = 16,900 IDR; 1 EUR =14,300 IDR, 1 USD =13,500 IDR, 1 SGD= 9,700 IDR)

The remaining funding will be used for the next financial year and will consequently be withdrawn from the next budget proposal.