

ANNUAL REPORT 2020



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Although a scene of apparent bucolic bliss, this Sarus crane was taken from the nest as an egg and hand-reared as a pet. As a result of nest robbing this species no longer breeds in Siem Pang Wildlife Sanctuary.

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All other photos: Jonathan C. Eames

One hard & penetrating lesson for 2020

LETTER FROM THE CHAIRMAN | DOMINIC T. SCRIVEN OBE

Dear Supporters and Colleagues,

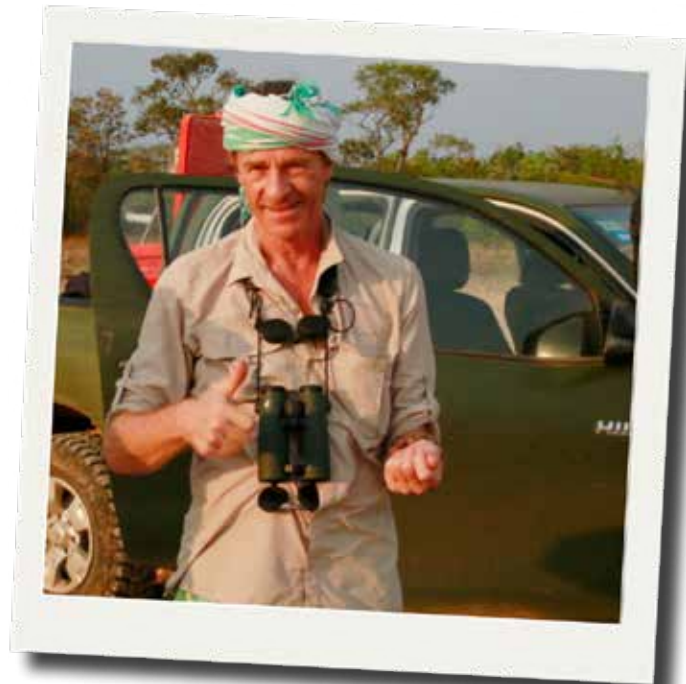
It is a fair bet that no one who receives this Annual Report will recall a more disturbing year than 2020, with its grim mixture of fear, solitude, and failed ambition. It is a wonder that most of us are still standing, as we hit the 12 month anniversary of Covid-19. But shining through the frustrated fragments of last year is one hard and penetrating lesson: that we trample on biodiversity at our own risk. And that, of course, speaks directly to the relevance of our mission at Rising Phoenix.

One of my personal frustrations was the inability to have visited Siem Pang and see firsthand the excellent work that our CEO, Jonathan, and his dedicated teams are undertaking. We have enabled a substantial boost in enforcement capacity, through the very great offices of Mark Bowman, one of Asia's most experienced enforcement professionals. More recently, by joining the PATROL initiative, we are linking into even more forceful regional enforcement endeavours. In terms of community livelihoods, BirdLife's IBIS Rice scheme goes from strength to strength, building reputation and followers throughout the Sanctuary's adjoining villages. The monitoring team achieved an exciting breakthrough in tracing vulture populations. Jonathan will share more.

At an institutional level, we are delighted to have entered a partnership with Meng Hieng, a prominent Cambodian business figure, who has a demonstrated commitment to conservation. Under Meng's leadership, we have established a

Cambodian NGO, Siem Pang Conservation, to enshrine our relationship with the Cambodian Government.

Thank you all deeply for your engagement with Rising Phoenix, and on your behalf, I would like to thank Jonathan and his teams, together with Meng, as we enter a decisive 2021.



Although most visitors experience only the deciduous dipterocarp forest, nearly half of Siem Pang Wildlife Sanctuary is covered with semi-evergreen forest.

A year of achievement and discovery

MESSAGE FROM THE CEO | JONATHAN C. EAMES OBE

I hope you will enjoy reading this year's annual report. I have tried to do something different and provide a more in-depth look at our work over the past 12 months. Whilst proud of the performance of the entire Rising Phoenix and BirdLife team, forced to identify key achievements for the year I have chosen the following:

Registration of Siem Pang Conservation as a local non-government organisation (NGO). Advised that the Government of Cambodia was unlikely to enter into a contract for the management of Siem Pang Wildlife Sanctuary, we established a new NGO entity to hold the future agreement. Meng Hieng and James Lyon worked on this and registration was completed by year end.

Our counter-poaching ranger training for 29 rangers and staff was originally scheduled for 2019 but suffered a number of setbacks. We were finally able to bring from Thailand, Southeast Asia's most experienced ranger trainer, Mark Bowman from Frontline, and do so before a two week mandatory quarantine was enforced in Cambodia. Mark designed and led a three week training course in December for Department of Environment rangers, Rising Phoenix staff and scouts. At the time of writing Mark continues to work with us improving the performance of our enforcement staff.

The BirdLife livelihoods team led by Mak Sopheap broke previous records in December when 441 households from across the seven villages surrounding the wildlife sanctuary sold a total 357 tonnes of paddy to IBIS Rice Conservation Co. Ltd. Sopheap and his team began the IBIS Rice project in 2017 when 43 families registered. The annual

rice sale at that time was eight tonnes. The increase brings much needed cash income to households and incentive for families to uphold protected areas law as offenders are expelled from the scheme.

The fitting of GSM trackers on two white-rumped vultures by international vulture expert Andre Botha in March resulted almost immediately in the discovery of a previously unknown colony on the Laos border. This was a very important discovery given all three species of Cambodian vulture are Critically Endangered, meaning a high chance of global extinction. At Siem Pang Wildlife Sanctuary, the white-rumped vulture is the most common but until 2020 we had no idea where they nested.

The BirdLife field monitoring team led by Eang Samnang routinely camera-trap a series of mineral licks scattered across the wildlife sanctuary. We know we have a significant gaur population (the world's largest wild cattle species) since we have many contacts monthly. It came as a welcome surprise when in October we captured images of two male banteng, an Endangered wild cattle species last camera-trapped in the wildlife sanctuary in 2013. Why only two males and no females or calves is a mystery. Perhaps they are the last two or a bachelor herd.

In June, a team from Fauna and Flora International led by Pablo Sinovas, together with Siamese crocodile experts Han Sam and Hor Leng, found crocodile tracks on the riverbank at three sites in the wildlife sanctuary. No dung was found and we have not been able to capture any camera trap images subsequently. Their results offer tantalising although less than certain evidence

for the continued presence of this Endangered species. We know it occurred historically and this is a sufficient basis to proceed with the feasibility study for its reintroduction in 2021.

The work at Siem Pang Wildlife Sanctuary is shared with our close partners BirdLife International and the Ministry of Environment. As part of my role, I am also responsible for BirdLife activities at the site. In some areas of work there is overlap, such as on biodiversity matters but on enforcement Rising Phoenix leads, whilst BirdLife leads on livelihoods. In 2021 we expect this to change as BirdLife transfers projects, staff and assets to Rising Phoenix as part of BirdLife's strategic withdrawal. Our key government partner, the Ministry of Environment has shown great interest in our work in 2020, and the visits by His Excellency Minister Say Samal, and Secretaries of State Their Excellencies Phai Bun Cheoun and Sokhun Ratakhun are a reflection, I believe of their support and confidence for our work.

Jonathan Eames



Racket-tailed treepie is one of the smaller crow species found at Siem Pang Wildlife Sanctuary.



Building a sustainable future

LETTER FROM THE PRESIDENT OF SIEM PANG CONSERVATION | MENG HIENG

When I was first introduced to Dominic, Jonathan and Hoa, I was immediately captivated by the idea of their vision of a public private partnership to secure the conservation of Siem Pang Wildlife Sanctuary.

Protected areas in Cambodia are failing and a number are already now beyond the point of no return. Government cannot carry this burden alone, for burden it is if the land makes no return and tax dollars for conservation are scarce in Cambodia. Yet Cambodia, like elsewhere has a vibrant private sector that provides an opportunity for conservation. As a businessman, I am interested in legacy projects that can have some positive development impact. The idea of using a private sector lead approach based around high-end tourism seems an obvious way to proceed in this case.

Cambodia has amongst the best hotels and resorts in the world but they are city based or on the coast, with a heavy bias towards Angkor Wat. Yet Cambodia has a great forest estate and beautiful landscape. Why can't we have luxury forest based tourism too that can contribute to protected area management?

I first visited Siem Pang in 2019. I really had no idea what to expect and as well as enjoying the experience, I immediately saw the opportunities. Siem Pang provides a wilderness experience, outdoor adventure and wildlife viewing. In an increasingly populated and deforested world, the amenity value of pristine nature increases annually, especially for wealthy educated urban elites in Asia, who are searching for new experiences.

In 2020 I returned several times more, both for work and play. On one occasion I took my family

and once they had recovered from the shock of not having access to Facebook and Instagram, I'm sure, despite their protests, they enjoyed their hikes through the forest. These are the people we must ultimately reach if we are to be successful custodians of nature.

Our approach is both new and not previously attempted in Cambodia, while conservation and the non-profit sectors are new to me. I have spent my time in 2020 cultivating new relationships with individuals who can help us advance our cause and secure our long-term agreement. Securing an agreement will not be easy – what in life that is worth doing is? What we propose is as novel for the government as it is for us.

In 2021 it is our fervent hope that we can secure this agreement so we can get to work building a sustainable future and give hope to Siem Pang Wildlife Sanctuary. We have a good track record, a great team and a unique idea. Nothing ventured, nothing gained!



The courting ritual of white-shouldered ibis

2020: Summary of achievements

BIODIVERSITY & CONSERVATION

counted

32 Eld's deer during the annual survey

first

Banteng camera trapped since 2013

found

evidence of Siamese crocodile

fledged

9 chicks from 9 vulture nests

10 giant ibis chicks from 7 nests

41 white-shouldered ibis from 21 nests

held

41 vulture restaurants

new

White-rumped vulture nesting colony
discovered across
international frontier in Laos



COMMUNITY DEVELOPMENT

4431

cattle & buffalo
vaccinated

357

tonnes of JBS Rice sold by
441 households

307

people received
financial literacy training
inc 156 women

164

ricefield land parcels mapped
for 146 households



MANAGEMENT & INFRASTRUCTURE

established
Siem Pang Conservation

deployed
One floating bathhouse & one boat

installed
Three artificial vulture nest platforms
Six solar panels at six waterholes

LAW ENFORCEMENT

36
live animals
confiscated & released

29
staff trained in counter poaching
inc 14 Department of Environment
5 Rising Phoenix staff & 10 scouts

19
chainsaws confiscated

18
hand tractors confiscated

Targets for 2021

BIODIVERSITY AND CONSERVATION

Giant ibis satellite tracking initiated
Siamese crocodile are reintroduced
Annam gibbon population surveyed
Feral water buffalo herd established
52 vulture restaurants held

COMMUNITY DEVELOPMENT

700 families join the IBIS Rice scheme
50% of cattle and buffalo in 7 target villages are vaccinated
24 forest wetlands excavated
Fish no-take zones put in place on the O’Khampa river

MANAGEMENT AND INFRASTRUCTURE

Agreement is signed between Siem Pang Conservation and the Government of Cambodia
Rising Phoenix and Siem Pang Conservation open a shared office

LAW ENFORCEMENT

PATROL operationalised
Southern boundary and sustainable-use zones demarcated
Recruit a Head of Law Enforcement

FUNDRAISING

US\$ 1,000,000 raised
Corporate film produced



Greater adjutant breeds only in Assam, India and at the Prek Toul waterbird colonies on the Tonle Sap Lake. It is a regular monsoon visitor to Siem Pang Wildlife Sanctuary.

2020 diary

Rising Phoenix CEO Jonathan C Eames takes a personal look-back at 2020.

January

is early in the dry season. Nights are cool and a camp fire is required. Early mornings need a light jacket. The air is still fresh from the rainy season and villagers have not yet started the annual forest fires. Vulture nesting is already underway by the start of the year and by the end of January we had found three red-headed vulture nests and six slender-billed vulture nests and all were incubating. We are the last site in Cambodia to have nesting vultures.

July

At the vulture restaurant I photographed ten red-headed vultures together. The most I have ever seen although pipped by an earlier record of 12. The first greater adjutants of the rainy season are recorded at the vulture restaurant. We switch to four vulture restaurants per month.

We camera trapped a globally Endangered large-spotted civet the first record in the wildlife sanctuary since 2012/13. An air delivered seismic intrusion detector, resembling a bomb, together with ordnance in the form of mortar shells were found locally and disposed of by the Cambodian Mine Action Center. We host His Excellency Minister of Environment Say Samal.

February

A severely injured pregnant clouded leopard, snared in the wildlife sanctuary was confiscated and transferred to Phnom Tamao Rescue Centre. It later underwent surgery and its right front foot was first amputated. During this procedure the leopard aborted a foetus. The animal underwent a second surgery to remove an additional part of the leg as infection spread. On my return from annual leave I rushed to see it unfortunately it died on 29 February despite best efforts.

By the end of the month we had found nine vulture nests and 22 white-shouldered ibis nests, of which 14 nests had successfully fledged 29 chicks, four nests were still actively feeding seven chicks, and three nests had. The giant ibis survey began.

August

We had found seven giant ibis nests by month end. Three nests were being incubated, two nests had already hatched, and two nests had failed.

We found a giant ibis and a slender-billed vulture nest on the same tree and the young vulture, now fledged, roosted one evening in the ibis nest and destroyed it. My last encounter with the buffy fish owl, which since its soft-release had visited our camp regularly. Hopefully he/she has found a mate.

March

Vulture expert Andre Botha arrived from South Africa and conducted an anti-poisoning training. He supervised putting two GSM trackers on two white-rumped vultures so we might discover where they breed. The second giant ibis survey continued.

The rangers confiscated the bizarre-looking big-headed turtle, a denizen of cool and shady mountain forests and pools, clearly taken in the hills of neighbouring Virachey National Park. For its well-being it was transferred to the Angkor Centre for the Conservation of Biodiversity.

September

The field monitoring team focused on giant ibis nest searching and brought annual total to eight nests. We counted 385 roosting white-shouldered ibis on 15 September.

Naturalist Jeremy Holden found and identified nine species of terrestrial orchid around camp.

April

The hottest and driest month.

The widowed female black-necked stork was again present at Veel Kreel, which also saw much Eld's deer activity since April is the rut.

A golden jackal at Trapeang K'mun was my first for several years. Our GSM tagged white-rumped vultures lead us to a new colony just over the Laos border.

During the annual Eld's deer survey we counted 32 unique individuals. The second highest number recorded.

Early in the month we learnt of two men seriously injured by a black bear. Later in the month a black bear cub was recovered, presumably the young of the attacking female. The men claimed to be in the forest looking for malva nuts. The truth has many versions in Cambodia and it seems far more likely they were hunters checking snare lines and had caught a female bear who broke free and attacked in defence of her cub. Sadly the cub arrived too dehydrated to save.

The rangers confiscated a nestling changeable hawk-eagle which was transferred to one of our aviaries for care and eventual soft-release.

October

Our greater adjutants are still present, telling us the rainy season is still with us. Senior field monitoring team member Mem Mai fell from his motorbike and fractured his pelvis. We found two more giant ibis nests. Our camera traps record two bull banteng. The first recorded in the wildlife sanctuary since 2013.

May

With the white-shouldered ibis nesting season largely completed our focus was on giant ibis nest searching and vulture nest monitoring.

We found a juvenile brown wood owl nearby camp. We began the soft-release of the changeable hawk-eagle.

We hosted His Excellency Secretary of State for Ministry of the Environment, Sokhun Ratakhun and delegation at Siem Pang tented camp. The first VIP of many this year and the first of two visits by Ratakhun.

November

One of our ranger station cooks catches a young giant ibis at a forest wetland. The ibis was checked by Christel and Chiara from ACCB and transferred to their care. It later tested positive for avian malaria. It was also dehydrated, thin and had feather lice. We place the first two artificial vulture nests near the vulture restaurant. The second round of cattle and buffalo vaccinations began.

December

On 8 December we begin the soft-release of a dark-phase changeable hawk eagle from ACCB. The changeable hawk eagle soft-released earlier in the year is hanging around the aviary so on 29 December we opened the aviary door and the bird departs. It does not return to feed on the food we continue to put out. The young red-headed vulture we were preparing for soft release is too habituated and is returned to ACCB. A crested serpent eagle and an Asian woolly-necked stork with a GSM tracker are hard released by ACCB.

We also placed camera traps at 12 forest wetlands as part of the University of Queensland Eld's deer study. The big event of the month was the three-week counter poaching training at Toul Kamnob lead by Mark Bowman and team. At our annual farmers day event 370 people attend the event with H.E. Sokhun Ratakhun as guest of honour. A total of 441 households sold 357 tonnes paddy to IBIS Rice.

June

Giant ibis nest searching continued. The first Siamese crocodile survey was conducted and tantalising evidence found along the Stung Tieng Hieng. Camera trapping at one of the sites recorded Southeast Asian monitor, two smooth-coated otters, and a common palm civet. The crocodile survey team found tracks of three Asian elephants, two adults and one young. The first evidence of elephants in the wildlife sanctuary since 2016.

A young red-headed vulture was found dead. A moribund white-shouldered ibis was found and later died. One of our GSM tagged Asian woolly-necked storks was found dead.

His Excellency Phai Bun Cheourn and delegation stayed at Siem Pang tented camp. He was following-up on a night-time fire fight between our rangers and "Lao hunters" where our rangers fled the scene. We agreed the perpetrators were more likely locals.

Our supporters in 2020

Thank you Dinh Thi Hoa, Tony Foster, Andrew Huntley and Pham Linh-Dan, Tina Ju and Simon Meng, Susanna Kim-Bracke, Meng Hieng, Peter and Thuy Ryder, Peter Coolidge, Amanda, Valerie and Dominic Scriven, and Ly Tran.

Our teams

Rising Phoenix staff

Management

Jonathan Eames CEO
James Lyon Operations Manager

Finance & Administration

Kem Dyla Finance Officer
Tu Chan Administration Assistant

Logistics Support Unit

Hour Pok Head of Logistics Support Unit
Mai Manh Logistics Administrator
Iv Sivnen Community Engagement Assistant

Phy Thoy Cook at Okampa
Kaath Senghong Guard

Touch Srim Cook at Kampourk
Keo Ratha Guard

Svay Then Cook at Toul Kamnob
Meou Bunna Guard

Thach Channy Chambermaid
Yorng Sim Maintenance man

BirdLife International staff

Finance & Administration

Neak Bophal Senior Finance Officer

Livelihoods Team

Mak Sopheap Head of Unit
Sung Ren & Project Officers
Sin Samath
Hai Bun Leng Data Management Officer

Enforcement & Protection

Mang Tukla Head of Surveillance, Intelligence
& Reporting Unit
Lon Neat Logistics Support & Administration Officer
Sry Vuthy & Intelligence Officers
Croek Vannak
Oam Chai & Military Police
Soy Sokbotra

Department of Environment Rangers

Lean Vichet Chan Rang Yun Soknnara
Mut Sokhkea Ry Sokheng Thyng Veasna
Long Thavy Khon Ravy Nopheth Nhoummala
Poung Therng Sovann Sina Phan Samoun

Scouts
Mai May Loem By Sourn Seyha
Son Seun Nak Sysuk Seang Samorn
Sot Socheata Kea Phaivan Sarin Rato
Loem Chhay

Livelihoods Unit

Soeurng Laeuth Community Engagement Officer

Field Monitoring Team

Eang Samnang Head of Unit
Mem Mai & Senior Rangers
Loun Bunpeang

Mem Samphorn, Rangers
Vann Kosal &
Vann Virehchet



Our model

Incorporated in 2015, Rising Phoenix Co. Ltd. is a social enterprise created to support the conservation of the globally irreplaceable Siem Pang Wildlife Sanctuary. We propose combining the traditional donor approach with a private sector business model to secure the long-term conservation of the site. If we are able to accomplish this, it will be a milestone for conservation in Southeast Asia, where the business-as-usual model of the non-profit sector supporting governments has had limited success and requires a new approach.



Biodiversity monitoring



Siem Pang Wildlife Sanctuary supports populations of five Critically Endangered bird species and the largest known population of the Endangered Eld’s deer. The terms Critically Endangered and Endangered mean species designated as such have a very high and high chance of extinction. We regularly monitor these species and have done so in some cases for many years already. We do this to determine their population size and trend; are the populations increasing, decreasing or holding steady? Changes in population size and trend helps us develop conservation interventions and importantly, measures the impact of our investment in conservation, enforcement and livelihoods.

VULTURES - Cambodia and Myanmar support the last remaining vulture population in Southeast Asia. Cambodian vulture populations are in decline (Figure 1). They are following a classic extinction model, declining in both range-size and extent. The Cambodian vulture population is now centred on Siem Pang Wildlife Sanctuary (Figure 2). Vulture extinction in Cambodia is not inevitable but conservation efforts must be intensified to prevent this outcome.

Siem Pang Wildlife Sanctuary is the single most important site for vulture conservation in Cambodia recording up to 90% of the remaining population of all three species. In an attempt to increase nesting success and survival, in 2020 we increased the frequency of vulture restaurants from two per month to four. We provided 41 cattle and buffalo carcasses in 2020 and will provide 52 in 2021. In 2020 we found 11 vulture nests of which nine nests successfully fledged nine chicks. In 2020 we placed three artificial vulture nesting platforms and we will place another seven in 2021. This approach has not previously been used in Southeast Asia.

Graph source: Broadis, N & Ny, N. (2020)

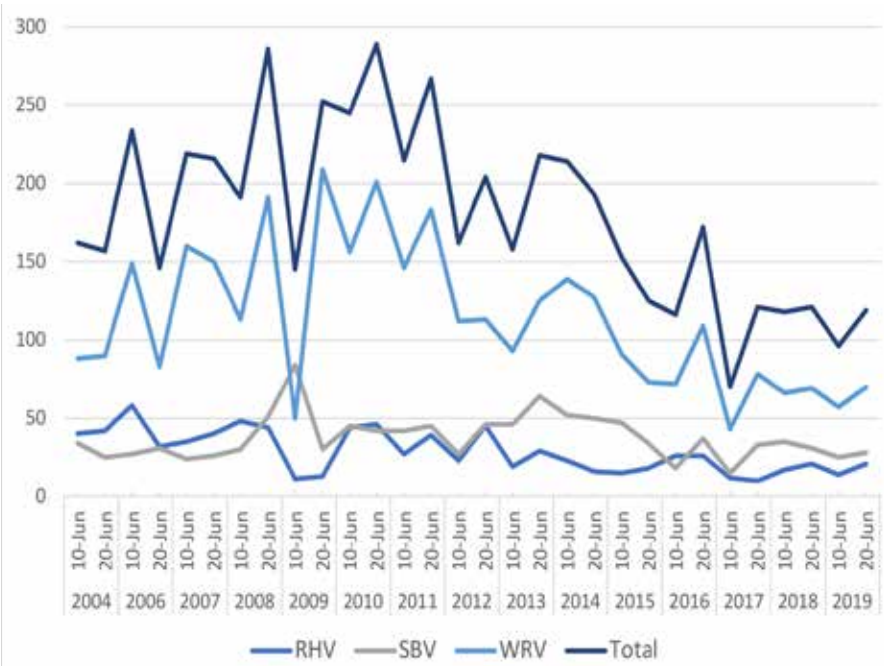


Figure 1: Cambodian vulture population trend 2004-2019

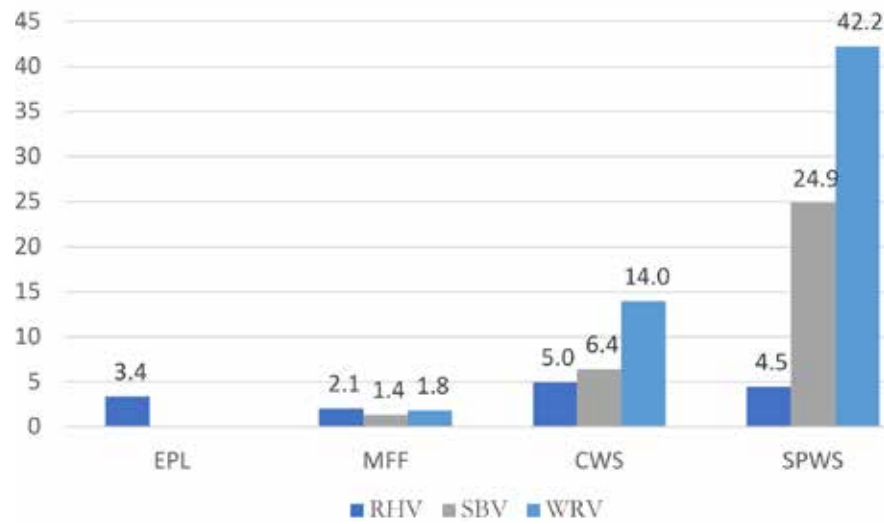


Figure 2: Cambodian vulture populations by site

KEY:			
EPL	Eastern Plains Landscape	MFF	Mekong Flooded Forest
CWS	Chep Wildlife Sanctuary	SPWS	Siem Pang Wildlife Sanctuary
RHV	Red-headed vulture	SBV	Slender-billed vulture
WRV	White-rumped vulture		

White-rumped vulture was discovered breeding just outside Siem Pang Wildlife Sanctuary in Laos during 2020.





Siem Pang Wildlife Sanctuary is a global stronghold for giant ibis.

GIANT IBIS - Siem Pang Wildlife Sanctuary supports 20% of the global population of this species, which is now confined to Cambodia, having become recently extinct in neighbouring Thailand, Laos and Vietnam. We monitor this species by locating nests during the rainy season and by undertaking point-count surveys.

In 2020 we found ten nests of which seven fledged ten chicks. Nesting data for the period 2016 - 2020 reveals (Table 1) that between 64 - 100% of nests found in any year were successful. What is not known is what proportion of young birds survive to breed. After all, since 2016 we know at least 73 young have fledged. What happened to these birds?

In 2021 we plan to put satellite trackers on three juveniles to determine ranging behaviour and survival rates. Data from our two giant ibis surveys undertaken in 2015 and in 2020 indicate a minimum population of 50 birds. From our small data set it is not safe to interpret the population trend but it may be stable.

WHITE-SHOULDERED IBIS - Another Cambodian near-endemic species having become extinct in recent times in Thailand, Myanmar, Laos and Vietnam. A relict population hangs on in Indonesian Borneo but the fate of this species will be determined by what happens to the Cambodian population. Siem Pang Wildlife Sanctuary and surrounding agricultural land now supports 55% of the global population (Figure 3).

In 2020 we found 24 white-shouldered ibis nests at Siem Pang Wildlife Sanctuary of which 21 nests successfully fledged 41 young (Table 2). Of the three nests that failed, one failed due to predation, one due to human disturbance and the third failed for unknown reasons. In 2020, 12 of the nests (50%) were found outside the wildlife sanctuary boundary. As land-use outside the wildlife sanctuary becomes more intensive, we can expect these nests to be lost in the coming years.

Year	Nests found	Young fledged	Successful nests	% nest success rate	% change on baseline
2016 baseline	9	16	9	100	
2017	15	19	13	87	44
2018	16	17	12	75	33
2019	11	11	7	64	-23
2020	10	10	7	70	-22

Table 1: Giant ibis nest success 2016-2020 at Siem Pang Wildlife Sanctuary

Year	Nests found	Young fledged	Successful nests	% nest success rate	% change on baseline
2016 baseline	24	15	9	38	
2017	30	35	21	70	133
2018	25	34	18	72	100
2019	29	11	24	83	166
2020	24	10	21	88	133

Table 2: White-shouldered ibis nest success 2016-2020 at Siem Pang Wildlife Sanctuary

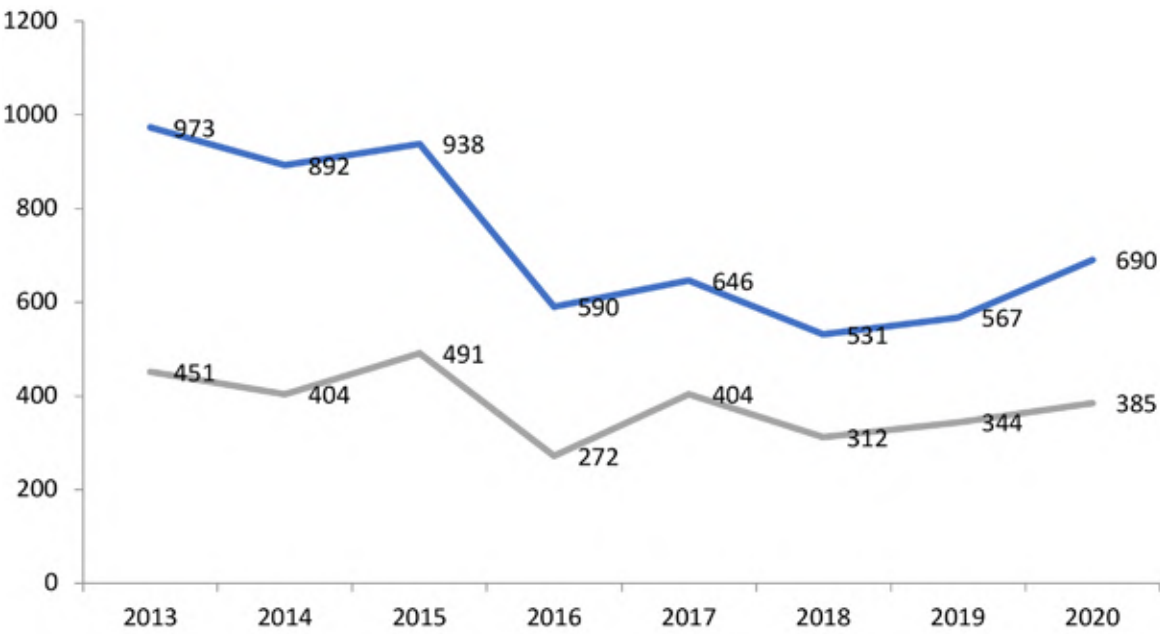


Figure 3: Annual white-shouldered ibis roost counts 2013 - 2020

KEY:
Blue - National count
Grey - Siem Pang Wildlife Sanctuary count

ELD’S DEER has become extinct in Thailand and Vietnam. A small number are known to remain in Laos. There are post 2010 records from only four sites in Cambodia. On the data available Siem Pang Wildlife Sanctuary may support the largest remaining Eld’s deer population in Cambodia.

Since 2015, an annual vehicle-based survey has been conducted at Siem Pang Wildlife Sanctuary in April, over the Khmer New Year holiday. Observers drive slowly in a 4x4 vehicle along dirt tracks through the dry forest, in the morning and/or late afternoon. The exact routes taken and the sampling effort varies between years. For any Eld’s deer observed, photographs

are taken if possible, along with the GPS coordinates of the sighting, and the time and group configuration are also recorded. The total number of sightings made per survey day is calculated, along with the total number of different individual animals observed daily to provide a minimum count. The uniqueness of individuals is determined by individual features such as antlers, as well as group composition, with any repeat group compositions ignored, and it is assumed that there is no mixing of groups. As survey effort and conditions vary between years, the count is not a reliable indicator of the population size, but provides an indication. The results are presented in Table 3.

Year	2015	2016	2017	2018	2019	2020
Total sightings	51	36	95	53	30	41
Minimum count	51	20	27	17	10	32

Table 3: Total sightings and minimum count of Eld’s deer during the rapid vehicle survey in Siem Pang Wildlife Sanctuary



Male Eld’s deer during the rut.



FOREST COVER CHANGE is monitored annually within Siem Pang Wildlife Sanctuary using satellite imagery. Between 2010 - 2019 the wildlife sanctuary lost 1,610 ha of forest or 2.7% of its total forest cover. The area with the greatest rate of forest loss some 668ha, was along the Sekong River. This level of forest loss would not have occurred had the road not been built from Siem Pang to the Laos border, the subsequent construction of two river bridges and the associated influx of Cambodian army soldiers and villagers who have grabbed forest land and cleared it. There is now a very real threat of the wildlife sanctuary being bisected by a corridor of unregulated and illegal development.



Biodiversity & Conservation

WHITE-RUMPED VULTURE COLONY

Siem Pang Wildlife Sanctuary is the only site in Cambodia that now reports regular vulture nesting. Annually we find up to 12 slender-billed vulture nests and as many as three red-headed vultures nests. However, the white-rumped vulture is the most common vulture species attending the vulture restaurants but we find no nests. Locating nesting colonies and safeguarding them is therefore a conservation priority. To solve this mystery in March we caught two white-rumped vultures, an adult and an immature and fitted them with GSM transmitters. The signals from the transmitters were picked-up by mobile phone towers and a position triangulated. Hourly we were able to plot their location, altitude and the distance travelled. Within days the data revealed that the tagged vultures were continuously visiting a forested ridge just beyond the wildlife sanctuary border in Laos. A visit to the location in April revealed two white-rumped vulture nests, one actively feeding young and one with fledged young nearby. A challenge for 2021 is finding additional nests which must surely be in the vicinity and taking steps to ensure their success.

FIRST BANTENG SINCE 2013

The banteng is an Endangered species of wild cattle formerly found throughout Southeast Asia. At Siem Pang Wildlife Sanctuary it is very rare and there had been no record since three were camera-trapped in 2013. So we were thrilled in 2020 when we repeatedly camera-trapped two banteng bulls, together with gaur, attending a mineral lick in the forest.

EVIDENCE OF SIAMESE CROCODILE

In 2020 we undertook two surveys of the Sekong river and its tributaries to try and discover recent evidence of the continued presence of the Critically Endangered Siamese crocodile. This work was led by scientists and crocodile experts from Fauna and Flora International and the Forestry Administration. Although tantalising evidence was found including a haul-out and tracks, no irrefutable evidence was found. We followed up with camera trapping at promising locations but recorded only Southeast Asian monitor lizards and smooth-coated otters.

ELD'S DEER STUDY

In 2020 PhD student Rachel Ladd from the University of Queensland concluded her final year of data collection. Using arrays of camera traps Rachel is trying to determine the Eld's deer population size and foraging behaviour in Siem Pang Wildlife Sanctuary. Her results will help improve conservation management of the species.



Sub-adult white-rumped vultures.

Community Development



At Siem Pang Wildlife Sanctuary our livelihoods interventions are focussed on organic jasmine rice production and cattle and buffalo vaccination.

A fundamental challenge conservationists face is how to provide tangible reductions in household poverty in return for positive behaviour towards adjacent protected areas and their conservation. The IBIS Rice scheme provides the opportunity for households to significantly increase household income through growing and selling a premium organic jasmine rice. The compliance scheme that participating households are required to adopt has been proven to reduce rates of forest loss.

The link between the IBIS Rice scheme, increased household income and reduced encroachment and deforestation has recently been established. Research by the University of Oxford and Wildlife Conservation Society shows that households participating in IBIS Rice scheme increase levels of wealth faster, and enjoy an additional household income equivalent to a family member in full-time employment or equivalent to owning a hand tractor. Households participating in the scheme clear up to four times less forest.

Since BirdLife partnered with local non-government organisation Sansom Mlup Prey and introduced the IBIS Rice scheme in the villages around Siem Pang Wildlife Sanctuary, the number of participating households has risen from 43 families in a single village in 2017 to 530 families in

seven villages in 2020 (Figure 4). The annual rice sales to the scheme volume have increased from eight tonnes in 2017 to 357 tonnes in 2020.

To date 441 families have sold their rice to IBIS Rice Conservation Co. Ltd., at a premium of 50% above the market price. This has yielded an income of US\$ 148,596. On average, a participating households received an additional US\$336 as cash income per annum. In return for participating in the scheme, households sign an agreement, respecting the boundaries and laws of the wildlife sanctuary. To date only five of 530 families have violated the agreement. In 2021, our target is to reach 700 families in the scheme.

Our second livelihoods focus is on controlling outbreaks of foot and mouth disease and haemorrhagic septicaemia in cattle and buffalo. Whilst the former disease is debilitating, the latter is always fatal. Since these livestock provide a source of income to villagers and play an important role in forest ecology via their grazing and wallowing in wetlands, we provide vaccinations twice yearly in June and December.

In 2020, we provided technical training to 15 villagers from seven villages on livestock raising and vaccination. We vaccinated 1,149 cattle and 1,095 buffalo, a total of 2,244 animals were vaccinated in June 2020 and 1,283 cattle and 904 buffalos, a total of 2,187 animals were vaccinated in December 2020. Giving a total number of 4,431 animals vaccinated. In 2021, our target is to reach a 50% vaccination for cattle and buffalo in seven villages around the wildlife sanctuary.

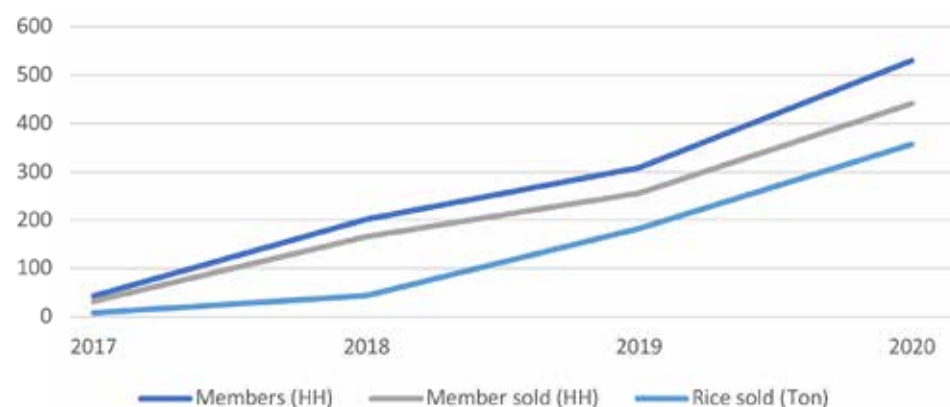


Figure 4: Numbers of households participating in the IBIS Rice scheme at SPWS 2017 - 2020



Management & infrastructure

Rising Phoenix now has 44 staff based at our Phnom Penh and Siem Pang offices. Our activities at Siem Pang Wildlife Sanctuary remain a collaboration between BirdLife International and Rising Phoenix. A new management structure was put in place in 2020 which breaks our operations into seven units with the following responsibilities:

FINANCE & ADMINISTRATION UNIT

The acting head of this unit is the operations manager who is supported by a finance officer and a finance assistant.

LOGISTICS SUPPORT UNIT

Manages stores, fuel, transport, maintenance of equipment and facilities including the ranger stations and the tented camp.

SURVEILLANCE INTELLIGENCE REPORTING (SIR) UNIT

Manages information and intelligence management, reporting, surveillance and monitoring of enforcement activities.

LAW ENFORCEMENT UNIT

Current oversight by head of the SIR Unit. Enforces the laws of the wildlife sanctuary, seeks out and arrests violators, and provides a safe and secure environment, regardless of season, weather and terrain.

SCOUT UNIT

Current oversight by head of the SIR Unit. Supports non-law enforcement activities including guiding patrols, liaison with villagers, assisting in work tasks such as construction and repair, assisting in the removal of snares and under law enforcement supervision the removal of encroachment.

LIVELIHOODS UNIT

Livelihood activities and awareness raising. Currently under BirdLife management.

BIODIVERSITY MONITORING UNIT

Wildlife monitoring and research and rewilding activities. Currently under BirdLife management.

In 2020, the Logistics Support Unit installed solar panels at the six waterholes with bore wells. This significantly increases the volume of water pumped per day and reduces disturbance since staff no longer need to visit the waterhole to pump water. A floating boathouse was built at the O'Khampa ranger station and boat delivered to facilitate patrolling along the Sekong River and its tributaries. Three artificial vulture nest platforms were installed in the wildlife sanctuary. Although a routine practice elsewhere, this technique had not previously been tried in Southeast Asia. Within days one of the nest platforms was occupied by slender-billed vultures and hopes were high that they would nest. Although this was not the case initial results were promising and we will install a further seven nest platforms in 2021.

Enforcement

Rising Phoenix currently supports a ranger force of 14 enforcement rangers provided by the Department of Environment. This is a completely inadequate number of rangers for a large protected area. Professional norms indicate we require a ranger force ten times this number of 140 men.

In 2019, we lobbied the Ministry of Environment and the Royal Gendarmerie Khmer for an additional 25 officers to support our enforcement operation, but this request was finally turned down. Undaunted, we have proceed to train and recruit a scout unit drawn from local villages, who will provide support to the government law enforcement officers, in such areas as snare removal and land encroachment.

In 2020, we also began exploring the possibility of supporting the Government of Cambodia's PATROL project which will coordinate all law enforcement agencies in Siem Pang district and lead to improved implementation of protected areas and wildlife law whilst also combating narcotics and human trafficking. The delivery of this programme is our main enforcement goal for 2021.

In December, instructor Mark Bowman from Frontline, conducted a counter-poaching patrol training for 14 Department of Environment rangers and a patrol scout training for five Rising Phoenix staff and ten scouts. The mission was to train participants to effectively, confidently and safely implement their main job function of a counter-poaching enforcement ranger to conduct counter-poaching operations of patrolling, surveillance, raids and take-downs in the forest of Cambodia.

This course was an intense 21-day field-training course, with the average instructional day commencing at 05h00 and concluding at 20h00. The majority of lessons were conducted in field environments, regardless of season or weather, and practical hands-on application and scenarios during lessons are predominant. The course was physically and mentally demanding! Strict adherence to instructor's orders was demanded for safety reasons and continuity of the training programme.

The course produced law enforcement officers trained with the minimum knowledge required to conduct all supervised tasks in support of the protected area counter-poaching requirements.

Institutional Partners

The organisations listed below worked with us or helped us in our mission in 2020.



AFRICAN PARKS is a non-governmental organisation (NGO) focused on conservation, established in 2000 and headquartered in Johannesburg, South Africa. The organisation manages national parks and protected areas throughout Africa, in collaboration with governments and surrounding communities. African Parks manages 18 protected areas in 11 countries as of August 2020, and employs more than 1,100 rangers. In 2020 Rising Phoenix received good support from CEO Peter Fearnhead and colleagues as we refined our own vision for Siem Pang Wildlife Sanctuary.



ANGKOR CENTRE FOR THE CONSERVATION OF BIODIVERSITY (ACCB) is a non-governmental organisation managing a conservation and endangered wildlife rescue and breeding centre near Siem Reap. It works towards the conservation of wildlife and biodiversity in Cambodia with a specialisation in chelonians and large waterbirds. Rising Phoenix collaborates with ACCB closely on rescue and release of wildlife, especially large waterbirds.



BIRDFAIR
The British Birdwatching Fair or Birdfair is an annual event for birdwatchers, held every August at Rutland Water in England, run by staff and volunteers from the Leicestershire and Rutland Wildlife Trust. It has been described as “the birder’s Glastonbury”. Birdfair provides funding to BirdLife for the delivery of the livelihoods programme and for species monitoring.



BIRDLIFE INTERNATIONAL is our closest institutional partner as Rising Phoenix works within the framework of their memorandum of understanding with the Government of Cambodia. BirdLife International has been working at Siem Pang Wildlife Sanctuary since 2005 and was responsible for identifying the site and having it nominated as a protected area. BirdLife currently leads on livelihoods, including the IBIS Rice scheme and biodiversity monitoring. At Siem Pang Wildlife Sanctuary, BirdLife has invested over US\$ 500,000 per annum since 2005, which today totals US\$ 7,500,000. BirdLife plans to withdraw from Cambodia by mid-2022, transferring its Siem Pang projects to Rising Phoenix.



CRITICAL ECOSYSTEM PARTNERSHIP FUND (CEPF)

is a joint biodiversity conservation initiative of l'Agence Française de Développement, Conservation International, European Union, Global Environment Facility, Government of Japan, and World Bank. CEPF works to protect ecosystems and the species within them by awarding grants to local and international civil society organisations working in biodiversity hotspots around the world. Grant recipients include nonprofit organisations, indigenous peoples groups and small businesses, among others. Since its inception, CEPF has funded conservation projects in 25 biodiversity hotspots across 98 countries and territories. The fund has committed a total of US\$ 244 million to more than 2,300 civil society organisations. At Siem Pang Wildlife Sanctuary CEPF funds livelihoods and species monitoring programmes including the initiative to re-introduce the Siamese crocodile.



Frogs remain a popular item in rural diets.



DARWIN INITIATIVE

is a UK Government funding programme that aims to assist countries with rich biodiversity but poor financial resources to meet their objectives under the Convention on Biological Diversity (CBD); the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and the Convention on the Conservation of Migratory Species of Wild Animals (CMS). The Darwin Initiative currently funds BirdLife to deliver the IBIS Rice programme in seven villages surrounding Siem Pang Wildlife Sanctuary.



FAUNA & FLORA INTERNATIONAL (FFI)

is an international conservation charity and non-governmental organisation dedicated to protecting the planet's threatened wildlife and habitats. Founded in 1903, it is the world's oldest international conservation organisation. The logo of the society is the Arabian oryx, after the very successful Operation Oryx, a flagship Arabian oryx captive breeding project undertaken by the society. In 2020 Rising Phoenix worked with FFI on Siamese crocodile survey and the development of a feasibility study for its reintroduction.



IBIS RICE

CONSERVATION CO. LTD

The mission of IBIS Rice is to grow great-tasting rice that protects endangered species, preserves vulnerable forests and supports wildlife-friendly® farmers to save earth's most precious resources. We envision a world where people, wildlife and nature can coexist. Certified organic, IBIS Rice is grown by hand in Cambodia. Our farmers plant just one crop per year, allowing it to mature slowly into the finest quality, fragrant, long-grain jasmine rice—a truly Cambodian variety known locally as *phkar romduol*. We are dedicated to empowering sustainable farmers that are passionate about safeguarding the environment. That's why IBIS Rice partners work exclusively with forest farmers who are committed to preserving the environment through a shared commitment of zero deforestation, zero poaching and zero chemicals.

THE MOHAMED BIN ZAYED SPECIES CONSERVATION FUND

is an endowment that promotes species conservation worldwide headed by Mohammed bin Zayed Al Nahyan, the Crown Prince of Abu Dhabi. The fund was established in October 2008 and became active in January 2009. It had an initial endowment of €25 million. MbZ currently support research on giant ibis at Siem Pang Wildlife Sanctuary.



Malay pit viper is a common and venomous snake found throughout the dry forest.



MINISTRY OF ENVIRONMENT

The main goal of Ministry of Environment is to protect the environment and conserve natural resources in such a way as to ensure sustainable development, environmental quality and human health through the integration of an environmental strategic plan and vision that contributes to socio-economic development and reduces poverty.

In 1993, the General Department of Administration for Nature Conservation and Protection (GDANCP), Ministry of Environment, was a department for nature conservation and protection. It was later promoted to be GDANCP by government sub decree. The GDANCP includes seven departments: Department of Administration, Planning, Accounting and Finance; Department of National Parks; Department of Wildlife sanctuary; Department of Climate Change; Department of Wetland and Coastal Zones; Department of International Convention and Biodiversity; and the Department of Research and Community Protected Area Development.

The GDANCP is a major contributor to the country's economy and sustainable development, including poverty reduction through the conservation and sustainable use of its biological, natural and cultural resources and other ecosystem services. It is responsible for the management, conservation and development of protected areas in line with policy of the Royal Government of Cambodia to ensure the conservation of natural resources, biodiversity and sustainable harvest of natural resources inside protected areas. It is entitled to establish organisational structures necessary for management of protected areas nationwide in line with protected area laws.

Under the Royal Government's decentralisation policy the Department of Environment Stung Treng Province has management authority for Siem Pang Wildlife Sanctuary.



SAMSUM MLUP

PREY is a Cambodian non-governmental organisation that focuses on developing sustainable, organic, and wildlife-friendly agricultural systems in

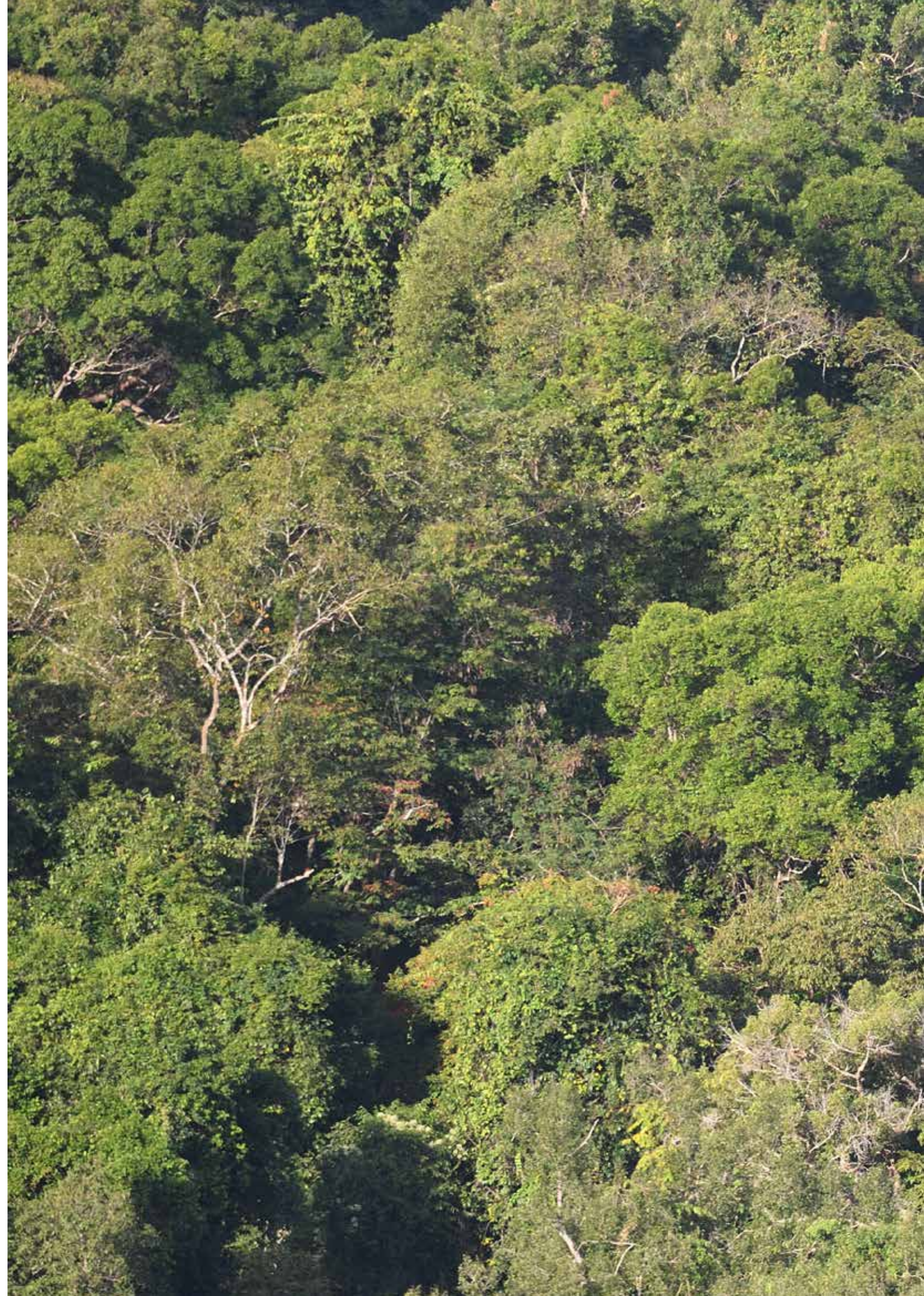
rural communities in Cambodia. They envision a Cambodia where rural communities earn decent, living incomes while actively preserving their biocultural heritage, protecting the integrity and composition of surrounding ecosystems, and sustainably managing natural resource use. The IBIS Rice scheme involves an innovative partnership between SMP and our market-facing partner, the IBIS Rice Conservation Company.



UNIVERSITY OF QUEENSLAND

is one of Australia's leading research and teaching institutions.

Currently the School of Agriculture and Food Sciences has a PhD student researching Eld's deer at Siem Pang Wildlife Sanctuary to determine their population size and trend, habitat preferences and the impact of predation by domestic dogs.



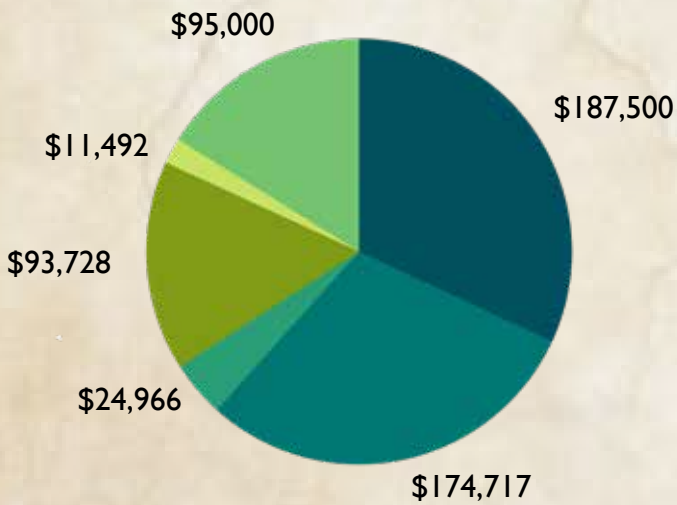


Financial Summary 2020

Rising Phoenix Co. Ltd. is a registered company in Cambodia. Rising Phoenix Inc. is a 501(3)(c) nonprofit entity registered in California, USA.

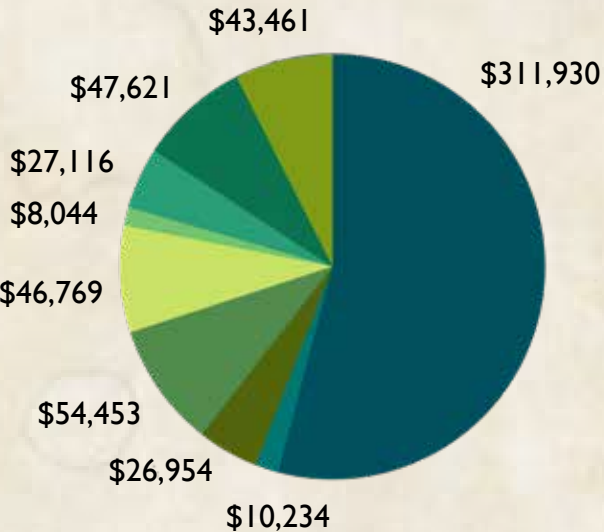
RISING PHOENIX CO. LTD.

INCOME



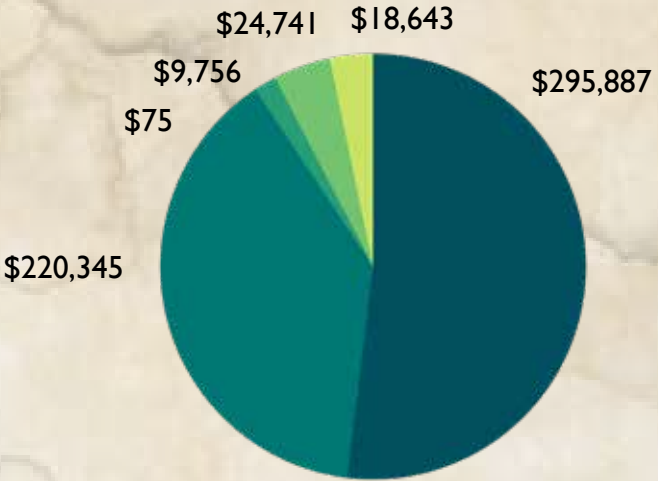
- Chairman's capital injection
- Director's capital injection
- CEPF debt rewilding
- CEPF Siamese crocodile
- MBZ grant
- Rising Phoenix Inc. law enforcement grant

EXPENDITURE



- Staff
- Office costs
- Repair and maintenance
- Depreciation
- Law enforcement operations
- Bird soft and hard release
- Operations
- Training
- Tax

EXPENDITURE PER ACTIVITY



- Core
- Law enforcement
- Tented camp
- Biodiversity
- Rewilding

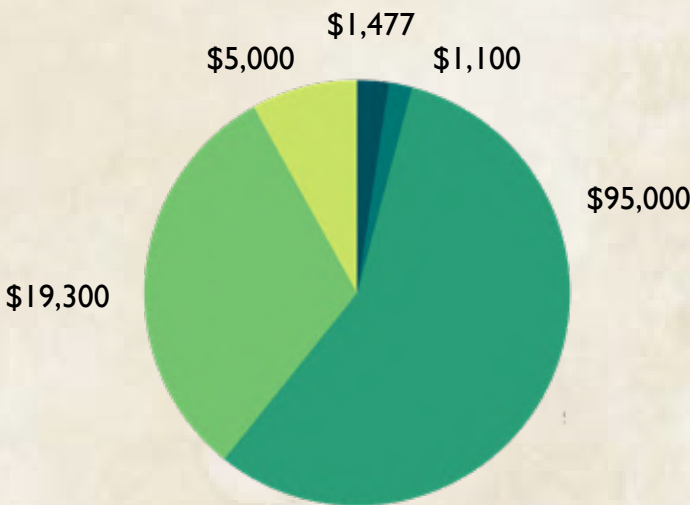
Thank you to the US board of Rising Phoenix Inc., Susanna Kim-Bracke, Ly Tran and Peter Coolidge, with special thanks to our Secretary John Baker for his hard work!

RISING PHOENIX INC.

INCOME



EXPENDITURE



- Andrew Huntley and Pham Linh-Dan
- Susanna Kim-Bracke
- Ly Tran
- Simon Meng and Tina Ju
- Peter Coolidge
- Peter and Thuy Ryder
- Ryan Cook

- Rising Phoenix Co. Ltd. law enforcement grant
- Fauna and Flora International grant
- ACCB and Munster Zoo grant
- Administration fee
- Rising Phoenix Co. Ltd. website fee

2020 contribution from Tony Foster was received in 2019 and is therefore not illustrated in this chart.

Asian golden weaver male: a drab nondescript species for much of the year, during the monsoon the males become a chromatic yellow.

