



# ACTION INDONESIA

## GLOBAL SPECIES MANAGEMENT PLAN

FOR ANOA, BANTENG AND BABIRUSA



# ANNUAL REPORT 2019

Cover photo: Babirusa Photo: Bali Safari and Marine Park



World Association of  
Zoos and Aquariums  
**WAZA** | *United for  
Conservation*

**ASSOCIATION  
OF ZOOS &  
AQUARIUMS**



Asian  
Wild  
Cattle  
Specialist  
Group



IUCN/SSC: Wild Pig Specialist Group

## In a nutshell: Achievements of Action Indonesia GSMPs in 2019

Anoa, banteng and babirusa all occur within Indonesia and are under threat of extinction due to hunting and habitat loss.

The Action Indonesia Partnership was created in 2016 with the aim to promote international collaboration to ensure the long-term survival of these species by a combination of *ex situ* and *in situ* activities. This used the Global Species Management Plans (GSMPs) frameworks for banteng, anoa and babirusa. Thanks to your support, partnership and collaboration, 2019 was another successful year for the Action Indonesia GSMPs. Below is a summary of our achievements:

- The GSMP Masterplan for 2018-2020 was submitted for official approval by WAZA.
- Successful breeding of GSMP species following the second set of breeding and transfer recommendations that were developed and distributed to Indonesian zoos in 2018.
- The first ever Action Indonesia Day was held on August 18th to raise awareness for GSMP species. Over 40 organisations around the world got involved for a successful day of events and activities.
- A new 5-year MOU (2019-2024) with PKBSI and the Indonesian Ministry of Environment and Forestry and the other GSMP partners was agreed.
- Organised and facilitated the CPSG 'Facilitating Species Conservation Planning' Workshop to further build capacity in Indonesian zoos, NGOs, universities and governments.
- An assessment team visited regional forestry offices and national parks in Sulawesi in August 2019 to discuss how the Action Indonesia GSMPs could improve the handling of rescued and confiscated anoa and babirusa.
- A panel of GSMP representatives presented our work at the AZA Annual Conference to raise awareness of GSMPs and Action Indonesia.
- Presentations on the progress of Action Indonesia were given at TAG meetings of the EAZA conference. A GSMP update meeting was also held at the conference
- Action Indonesia GSMPs won a silver award in the conservation category of the British and Irish Association of Zoos and Aquariums (BIAZA) annual awards.
- Continued successful fundraising to support GSMP activities.

In 2020 we hope to work together to develop the third set of breeding and transfer recommendations to be finalised and distributed in early 2021. We will adapt with our partners to achieve what we can, and hope to organise further workshops. 2020 will hopefully also see the beginning of GSMP led *in situ* population monitoring projects in East Java and Sulawesi.

**Thank you for your support and contributions! We look forward to continuing our collaboration.**



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## Background:

### What are GSMPs?

Global Species Management Plans (GSMPs) provide a framework for regional zoo associations to work together on a global plan for the *ex situ* activities for a particular species. The GSMPs are administered by the World Association for Zoos and Aquaria (WAZA) and run by committees of representatives of the regional zoo associations participating in the collaboration.

### Action Indonesia GSMPs

The partners of the Action Indonesia GSMPs collaborate for the conservation of three threatened Indonesian taxa; **anoa** (*Bubalus depressicornis* and *B. quarlesi*), **banteng** (*Bos javanicus*) and **babirusa** (*Babirusa* sp.; three species). We are also working closely with the **Sumatran tiger** (*Panthera tigris* *ssp. Sumatrae*) GSMP to align our activities where possible.

These GSMPs were founded by the Indonesian Zoo and Aquarium Association (PKBSI), the European Association of Zoos and Aquaria (EAZA), the Association of Zoos & Aquariums (AZA), the IUCN Species Survival Commission (SSC), the IUCN SSC Asian Wild Cattle Specialist Group (AWCSG) and the IUCN SSC Wild Pig Specialist Group (WPSG) in 2015. In March 2016, they were endorsed by the Indonesian Ministry of Environment and Forestry (KKH) and WAZA. These GSMPs use the One Plan Approach to combine the skills, resources and expertise of both the zoo community and *in situ* practitioners.

The Action Indonesia GSMPs have four main goals. These are:

1. To reach a demographically and genetically healthy global *ex situ* population
2. To raise awareness among zoo visitors
3. To use zoo expertise to help *in situ* conservation
4. To prioritise and support *in situ* projects



The three GSMP taxa: banteng, anoa (Photos: Bali Safari and Marine Park) and babirusa ( Photo: Surabaya Zoo)

## Your contributions in 2019

The achievements and activities in 2019 were only possible due to your generous contributions and support. Support included financial contributions as well as staff time, travel, technical input and the sharing of expertise.

This year, institutions sent staff to the Facilitating Species Conservation Planning' Workshop, held in Bogor, West Java, and as part of an assessment team in Sulawesi in August. Other institutions freed work time to allow staff to contribute to various GSMP activities, such as preparing education and communication materials, raising awareness and funds at their own institution, analysing studbooks and monitoring breeding and transfer recommendations. This in-kind support provided by your institutions or organisations is shown in Table 1.

Table 1 also shows the GSMP activities that contributions by your institutions and organisations have funded or will fund. Financially we raised £10,000 more in 2019 compared to 2018, which is a huge credit to the rising profile of the Action Indonesia GSMPs, as well as the hard work of all those involved in fundraising and the amazing generosity of our supporters.

The first section of Table 1 shows contributions to GSMP unrestricted funding. Unrestricted funding is important to assist with the overall functioning of the GSMPs, as well as to ensure funds are available in the case of urgent, last-minute activities; these funds are allocated by the Fundraising Working Group (see Table 2, Annex).

Table 1 also shows restricted funding – the contributions to specific activities. Some of this funding was secured in late-2019, so the associated projects won't start until 2020.



*Participants of the August 2019 CPSG Facilitation workshop in Bogor, West Java. Photo: Stu Young*

**Table 1** Action Indonesia Partner and supporter contributions; all funding, technical and in-kind support for the GSMP's in 2019.

Institute/Organisation/Individual	Contribution
<b>Unrestricted funds</b>	
American Association of Zoo Keepers (AAZK), USA	Funds raised during Action Indonesia Day 2019
AAZK South Florida Chapter, USA	
Drayton Manor Theme Park, UK	
Batu Secret Zoo, Jatim Park, Indonesia	
Bandung Zoological Garden, Indonesia	
Surabaya Zoo, Indonesia	
West Midland Safari Park	Funds to be used to for projects identified as priorities by Working Group leaders.
Centre for the Conservation of Tropical Ungulates, USA	
Roger Williams Park Zoo, USA	
Saint Louis Zoological Park, USA	
Toronto Zoo, Canada	
<a href="https://onepartner.ch/">https://onepartner.ch/</a>	Private donation
<b>Restricted funds</b>	
Zoo Miami, USA	Building and hosting the Action Indonesia website
Micanopy Zoological Preserve	<i>In situ</i> Sulawesi programmes
Chester Zoo, UK	Coordination of the Action Indonesia GSMPs; salary and travel of AWCSG PO and AWCSG Chair; staff travel and time for workshops and education materials
	Funding, staff travel and time for the CPSG Facilitating Species Conservation Planning Workshop for Indonesian conservation practitioners, 2019
Global Wildlife Conservation, USA	Coordination of the Action Indonesia GSMPs; core funding; salary and travel of AWCSG PO
Saint Louis Zoological Park, USA	Sulawesi and East Java <i>in situ</i> (to PKBSI)
Stitching Wildlife Beekse Bergen, Netherlands	Funding for the CPSG Facilitation Workshop
	Banteng <i>in situ</i> population monitoring
San Diego Zoo Global, USA	GSMP <i>in situ</i> support
	Coordination of the Action Indonesia GSMPs; core funding; salary and travel of AWCSG Chair
Zoological Society of London, UK	Laptop and camera for PKBSI-GSMP Programme Officer
Centre for the Conservation of Tropical Ungulates, USA	Coordination of the Action Indonesia GSMPs; salary and travel of AWCSG Chair; staff travel and time for workshops and education materials
PKBSI	Funding for the CPSG Facilitation Workshop
Taman Safari Indonesia Bogor	Contribution to PKBSI-GSMP Programme Officer salary
Batu Secret Zoo, Jatim Park	Contribution to PKBSI-GSMP Programme Officer salary
<b>In-kind support</b>	
Centre for the Conservation of Tropical Ungulates, USA	Staff time and travel
Simon Purser (Wallacea Nature)	Staff time
Jamie Copsey (Conservation Planning Specialist Group)	Staff time and travel – CPSG workshop
Martinus Sugiyanta (Gowa Discovery Park)	Staff time
Ikeu Sri Rejeki (KKH)	Staff time
Krismanko Padang (KKH)	Staff time

Thanks to all Indonesian zoos and institutions that sent participants to: CPSG Facilitation Workshop (20 participants), and to all the zoos and institutions around the world that participated in Action Indonesia Day 2019 (over 40).

## Details of Achievements

In this report, we describe GSMP activities in relation to their contribution to the outcomes and goals identified in the theories of change outlined below. Activities in 2019 were focused primarily on *ex situ* activities, including supporting Indonesian facilities to increase capacity through training and breeding and transfer recommendations. Good progress has also been made with education activities, with the development of a Global Campaign Day for GSMP species a particular highlight. We hope to progress further with *in situ* activities in 2020.

### Theory of Change:

As part of building the GSMP Masterplan for 2018-2020, a Theory of Change based approach was developed to help monitor and evaluate the GSMP's activities over the three-year period. This approach ensures that all GSMP activities contribute effectively to their overall aim of stable and secure populations of the three species. Three Theories of Change were developed to align with the following **sub-aims**:

1. *In situ* conservation (Stable and safe in situ population)
2. *Ex situ* conservation (Safe/healthy back up population fit for reintroduction)
3. Education (Action and support for conservation of target species)



*Banteng eating browse at San Diego Zoo. Photo: Steve Metzler*

### **Sub-aim 1: *In situ* Conservation (Stable and safe *in situ* population)**

#### **Theory of Change activity: Population monitoring**

Effective population monitoring of *in situ* populations of the GSMP species is essential to increasing knowledge of population sizes and trends, to identify whether populations are demographically and genetically stable and viable for conservation. Knowledge of population sizes, range and trends also helps to identify potential threats to the population and inform conservation actions. E.g. increased protection for populations vulnerable to hunting pressures.

In November 2019, the GSMPs, PKBSI and Alas Purwo National Park in East Java agreed to collaborate on a banteng monitoring project. This will allow us to establish how many banteng are in the park, how their population changes over time and the habitats they use. The monitoring project will use camera trapping throughout the whole national park and random encounter modelling to estimate population densities and trends. Similar methodology has already been used by Copenhagen Zoo for banteng monitoring in Baluran National Park, and it is hoped that the methodology used in this study will be replicated in other banteng sites. The monitoring project will begin in 2020 in collaboration and with the support of the AZA Conservation grant, Chester Zoo, Stichting Wildlife Beekse Bergen and Wroclaw Zoo.

2020 will see the hiring of a new Field Coordinator who will work closely with National Park staff and other GSMP partners to develop and coordinate the banteng population monitoring project in Alas Purwo National Park.



*Banteng grazing in Alas Purwo National Park. Photo: Steve Metzler*

### Theory of Change activity: Providing support

In August this year, a team of GSMP, PKBSI and KKH representatives visited forestry offices in Sulawesi to discuss how the Action Indonesia GSMPs could improve the handling of rescued and confiscated anoa and babirusa. Both species are threatened by habitat loss and hunting, causing population declines. The team was made up of Yonathan (PKBSI), Ikeu Sri Rejeki (KKH), Martinus Sugiyanta (Gowa Discovery Park), Simon Purser (Wallacea Nature), Jeff Holland (CCTU), Stu Young and James Burton (IUCN SSC AWCSG).

Visits were made to three offices holding rescued/confiscated anoa and babirusa, including TN Rawa Aopa Watumohai in Tinanggea, TWA Leija in Soppeng, and BKSDA Sultra in Kendari. During the visits, basic recommendations were given to improve the assessment procedure for the confiscated animal, and to improve their husbandry in the short-term. This follows visits and training given in 2016 and 2017, and is a good example of zoo expertise being transferred to support *in situ* offices.

This project is supported by St Louis Zoological Park and will hopefully continue in 2020 with further site visits to more forestry offices and national parks across Sulawesi. The project aims to provide KKH with recommendations about how to implement an island-wide strategy for the management of rescued anoa and babirusa with a network of transit centres at KSDA offices, and potentially designated breeding centres in Sulawesi.



*Ikeu Sri Rejeki (KKH) working with the GSMP to assess the needs of staff at TWA Leija, a site currently holding a rescued anoa. Photo: Wallacea Nature*

## CPSG 'Facilitating Species Conservation Planning' Workshop

In August 2019 Jamie Copsey (Director of Training, IUCN SSC Conservation Planning Specialist Group) led a 'Facilitating Species Conservation Planning' Workshop. The training team included Dr Ligaya Tumbelaka (Head of Education and Training, PKBSI), Dr Wisnu Wardana and Yonathan (PKBSI), and Dr Stu Young (IUCN SSC AWCSG). The workshop, held in Bogor, Java, lasted 4 days and was organized by the Action Indonesia GSMP. It enabled capacity building through collaboration with PKBSI and the IUCN SSC AWCSG, with funding from Chester Zoo, PKBSI and St. Louis Zoo.

The workshop had 20 participants from 20 organisations, including zoos, universities, NGOs and government. Participants took part in a mix of lectures and group exercises to learn how to deal with conflict, demonstrate effective listening skills and how to plan multi-stakeholder species conservation programmes, among other essential skills. The workshop was a great success, with some participants already facilitating meetings, and others planning to in 2020. This capacity building will benefit the organisations working on the Action Indonesia GSMP species, as well as other threatened Indonesian species.

Following the workshop, all participants were added to a WhatsApp group to continue networking and receive updates. The aim of this group is for the participants to share experiences and support each other as they put their facilitation skills into practice. At the end of 2019, all participants shared their experiences after the training, as well as activities that worked well or needed improvement, and some useful tools and ideas for activities in 2020. This informal group is coordinated by Yonathan (PKBSI-GSMP Programme Officer), an alumnus of the CPSG mentor scheme – a 12-month long one-on-one training programme in facilitation skills, supported by the GSMPs.



*Participants of the August 2019 CPSG Facilitation workshop in Bogor, Java. Photo: PKBSI*

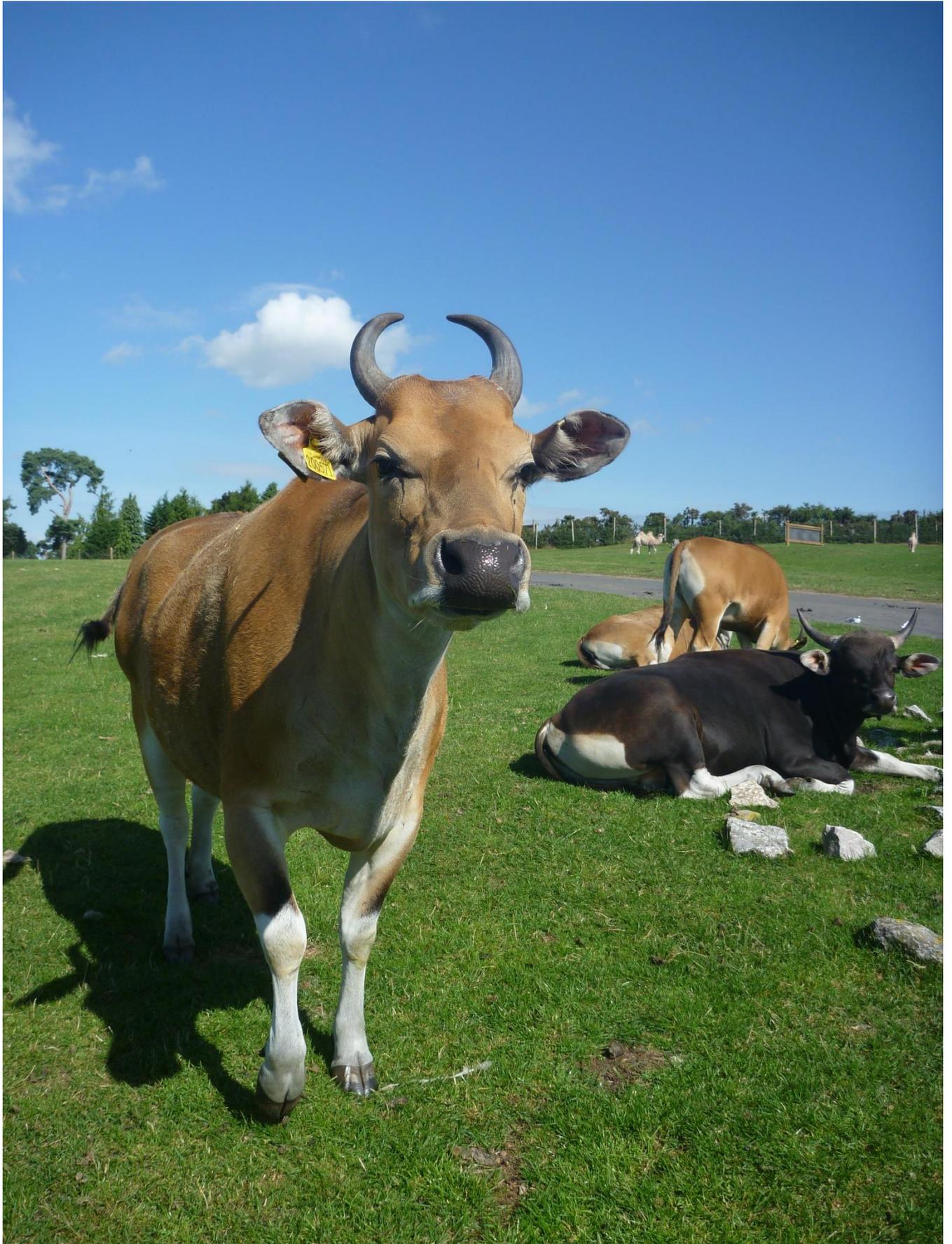
Yonathan speaks more about his experience of the CPSG mentor scheme below:

*"I joined the CPSG mentoring program with Jamie Copsey in 2018. I enrolled in CPSG Facilitating Species Conservation Planning online training in September 2018. Then I was lucky enough to join the face-to-face facilitation training that was held prior to the CPSG Annual Meeting 2018 in Bangkok, Thailand. I learned and practiced some facilitation tools and got many valuable insights from the other participants. I was also very lucky to join the annual meeting and learn how the group worked to solve the conservation issues and develop strategies and action plans.*

*In December 2018, I participated in Tamaraw Conservation Plan Workshop in Mindoro, Philippines. This valuable opportunity allowed me to learn how the action plan developed during a planning workshop. After this workshop, we discussed how to introduce these facilitation tools to Indonesian conservationists and diverse stakeholders to improve the facilitation skills in Indonesia. We managed to conduct the first Facilitating Species Conservation Planning Workshop in Bogor, West Java, in August 2019. This training included 20 participants from different institutions. I was able to deliver some sessions as my practical work. We hope that this group can move forward and be involved in many species conservation planning workshops in the future. Thanks to PKBSI, GSMP, and CPSG for enabling me to learn and practice these skills."*



Yonathan presenting at the CPSG Facilitation workshop. Photo: PKBSI



*Banteng at West Midland Safari Park. Photo: Rosie Wilkes*

**Sub aim 2: Ex situ conservation (Safe/healthy back up population fit for reintroduction)**

**Theory of Change activity: Breeding and transfer recommendations**

The second breeding and transfer recommendations for GSMP species were agreed in 2018 to increase population size and genetic diversity within the Indonesian *ex situ* population of anoa, banteng, babirusa and Sumatran tiger. Over the last year, zoos have made positive progress in following these breeding recommendations within their collections. Two banteng calves and two anoa were born in Taman Safari Indonesia (TSI) Bogor in 2019 following recommendations. In addition to this, five banteng calves were born in TSI Prigen and a babirusa piglet was born in Surabaya Zoo in January 2019. These 10 new births according to breeding recommendations are important steps forward in maintaining demographically and genetically healthy global *ex situ* populations. It is also a positive sign that Indonesian zoos are showing support for the GSMPs, the breeding recommendations and cooperative breeding. It is hoped that more recommended births will take place in 2020.

Of the recommended transfers that were agreed upon in 2018, one pair of Sumatran tigers were transferred from TSI Bogor to TSI Prigen last April following recommendations. Animal transfer processes have begun for several other transfers, although they are taking time to be completed. In 2020, PKBSI and the GSMP Working Groups will work to update information on breeding outcomes and the wants and needs of GSMP species holders in Indonesia, and use this information to develop the third breeding and transfer recommendations. These will be discussed and finalised in the next GSMP Planning Workshop.

The Husbandry Working Group GSMP has developed husbandry guideline for banteng and anoa. It has been translated into Bahasa Indonesia and is currently in the review process before being shared to Indonesian zoos.



*Banteng calf at Ragunan Zoo. Photo: James Burton*



*Anoa calf at West Midland Safari Park. Photo: Rosie Wilkes*

### Theory of Change activity: Genetic population assessment

In order that the greatest genetic diversity can be maintained in the ex situ populations, genetic assessment is required to verify the studbook data. This will improve the effectiveness of the breeding and transfer recommendations to retain as much genetic diversity as possible.

PKBSI is developing a collaboration with the Indonesian Institute of Science (LIPI) to sample the founder animals of the Indonesian zoo populations. This involves working with many of the Indonesian zoos to collect DNA samples, which will begin soon. The genetic work will be conducted in Indonesia. This collaboration is being supported by Copenhagen Zoo and Queen Mary University of London with technical input to the data analysis as well as training. We hope that much of the technical skills needed for these assessments will be transferred to Indonesian scientists for future use on other species managed in zoos.



*Babirusa piglets at San Diego Zoo. Photo: Steve Metzler*



*Banteng calf at TSI Prigen. Photo: James Burton*

### **Sub aim 3: Education (Action and support for conservation of target species)**

#### **Theory of Change activity: Global campaign day**

A key goal of the Action Indonesia partnership is to raise awareness of GSMP species among zoo visitors. To do this, the GSMP Education Working Group organised an annual 'Action Indonesia Day'. The first Action Indonesia Day was held on August 18th last year. Over 40 organisations across four continents got involved for a day of events and activities to connect people to anoa, banteng and babirusa and raise awareness about the global efforts to conserve them. The events held in zoos, and posts on social media (searchable with the #ActionIndonesia hashtag), helped to increase the profile of these largely unknown and under-appreciated threatened ungulates.

Zoos around the world got involved with special keeper talks, activities and 'artefacts tables', with many making use of the educational resources available to download from the Action Indonesia website. Some zoos also used this as an opportunity for fundraising as well as awareness raising.

Fundraising examples included Drayton Manor Zoo in the UK, which held a variety of games and activities to raise money – including one of the keepers being sponsored to get a tattoo of an anoa! Through this, Drayton Manor raised £700 (€805/\$880). A further £1,140 (€1,310/\$1,420) was raised by Zoo Miami and several chapters of the American Association of Zoo Keepers. These funds will be used to support important *in situ* conservation, including using camera traps to monitor wild populations of anoa and babirusa in Sulawesi.

There were 22 Indonesian organisations involved in Action Indonesia Day, the largest representation of any single region. This was down to the hard work of the Indonesian members of the Education Working Group to promote the day to zoos and universities across Indonesia.

The next Action Indonesia Day will be held on 16th August 2020. We hope that even more zoos worldwide will get involved in raising awareness about the GSMP species and the role of zoos in cooperative breeding programmes, and conservation issues in Indonesia.

Thanks for the hard work of everyone involved in making Action Indonesia Day 2019 such a success!



*Action Indonesia Day at Taman Satwa Lembah Hijau. Photo: Lembah Hijau*

Below are some more photos of Action Indonesia Day activities on August 18<sup>th</sup>, 2019:



Action Indonesia Day activities at TSI Prigen Photo: TSI Prigen



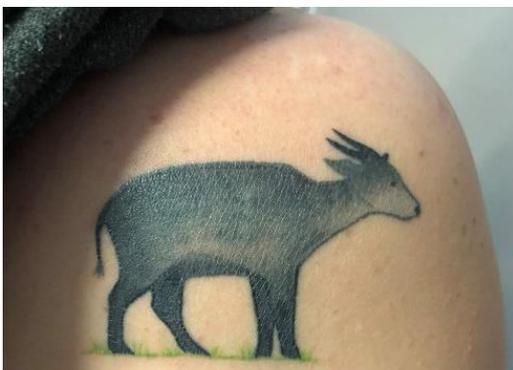
Face painting and social media campaign at Gembira Loka Zoo. Photo: Gembira Loka Zoo



Education stands at Bali Safari and Marine Park. Photo: Bali Safari and Marine Park



Education activities at Surabaya Zoo. Photo: Surabaya Zoo



Debbie Edward's (Drayton Manor Zoo) sponsored anoas tattoo for Action Indonesia Day. Photo: Debbie Edwards/Chloe Ellis



Action Indonesia Day activities at Chester Zoo. Photo: Chester Zoo



*Anoa feeding. Photo: Bali Safari and Marine Park*

## Outlook for 2020

Thanks to your support and contributions, 2019 has been a very successful year for the Action Indonesia GSMPs.

In 2020, we hope to continue to expand our activities. We appreciate that our plans for 2020 will need to adapt to the evolving situation. We fully understand that many zoos may not be able to be involved, so we will adapt our plans and achieve as much as possible. We hope to hold further workshops on collection planning, husbandry and education to build further capacity in Indonesian zoos, however this will depend on a number of factors. We will also work to develop the third round of breeding and transfer recommendations for the GSMP species to be finalised in the next GSMP Planning workshop in 2021.

We look forward to the next **Action Indonesia Day on the 16<sup>th</sup> August 2020**. Please check the GSMP website for updates and resources on how to get involved in Action Indonesia Day this year.

We rely on your support, expertise and funding to carry out our activities. If you are interested in getting involved and want to find out more, please contact either James Burton ([jamesaburton@yahoo.co.uk](mailto:jamesaburton@yahoo.co.uk)) or Corinne Bailey ([c.bailey@chesterzoo.org](mailto:c.bailey@chesterzoo.org)) of the AWCSG, a Working Group leader (see Table 2 Annex) or one of the GSMP convenors:

- Anoa: Terry Hornsey ([terry.hornsey@africa-alive.co.uk](mailto:terry.hornsey@africa-alive.co.uk))
- Banteng: Steve Metzler ([smetzler@sandiegozoo.org](mailto:smetzler@sandiegozoo.org))
- Babirusa: Joe Forys ([jforys@auduboninstitute.org](mailto:jforys@auduboninstitute.org))

**We wish all partners well for the coming months.**

**We need your help for the 2020 activities – please get in touch!**



*Babirusa at Chester Zoo. Photo: Chester Zoo*

## Annex: Action Indonesia GSMP Working groups and leaders

Below is the list of the thematic Working Groups and their leaders as developed in the second GSMP Planning Workshop in 2018.

**Table 2** Action Indonesia GSMP Working Groups and leaders

Name	Contact details	Affiliation(s)
<b>Anoa Population Management</b>		
John Andrews	<a href="mailto:jandrews@lpzoo.org">jandrews@lpzoo.org</a>	AZA Population Management Centre, Lincoln Park Zoo, USA
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Tim Rowlands	<a href="mailto:t.rowlands@chesterzoo.org">t.rowlands@chesterzoo.org</a>	Chester Zoo, UK
<b>Anoa and Babirusa <i>in situ</i></b>		
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James Burton	<a href="mailto:jamesburton@yahoo.co.uk">jamesburton@yahoo.co.uk</a>	IUCN SSC Asian Wild Cattle Specialist Group, UK
<b>Banteng <i>in situ</i></b>		
Carl Traeholt	<a href="mailto:cat@zoo.dk">cat@zoo.dk</a>	Copenhagen Zoo, Denmark

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Available from:

IUCN SSC Asian Wild Cattle Specialist Group ([www.asianwildcattle.org](http://www.asianwildcattle.org))

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