

2023-2025

Orangutan SAFE Program Plan



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ORANGUTAN SAFE PROGRAM PLAN

Contents

Program Partners..... 2

Orangutan SAFE Species Program Goal..... 3

Program Operational Structure..... 3

Conservation Target..... 6

AZA Conservation Activities..... 6

AZA Public Engagement Activities 7

Status of Species within the AZA Community 7

Conservation Status of the Species 8

Population and Habitat Viability Assessment 9

Action Recovery and Management Plans..... 10

Threats 11

Strategic Objectives 12

Literature Cited 13

Authors, Significant Contributors and Reviewers 14

Orangutan SAFE Species 3-year Action Plan (2023-2025) 15

PROGRAM PARTNERS



Orangutan SAFE Species Program Goal

The Orangutan SAFE program moves beyond the goals of the AZA Orangutan Species Survival Plan (SSP), of which the aim is to manage populations in human care, by focusing specifically on the conservation of wild orangutan populations. The vision of the Orangutan SAFE Program is to protect and restore wild orangutan populations and their habitats through public awareness, increased funding, and field work that focuses on the long-term protection of Orangutan populations. Our goal is to increase funding every year through the addition of other AZA institutions as program partners. Consequently, as the number of program partners grows, so does our public reach through engagement activities during International Orangutan Day. This event encourages the public to act in preserving Orangutan populations. Orangutan SAFE funding for specific conservation projects will focus on the protection and restoration of Orangutan habitat, supporting initiatives for the prevention of Orangutan poaching and trafficking, and research related to Orangutan distribution.

Program Operational Structure

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Conservation Target

Orangutans (Order: Primates; Family: Hominidae) comprise three species in the genus *Pongo*. Though they once ranged as far north as China, each is now isolated to the islands of either Indonesia/Malaysian Borneo (*P. pygmaeus subsp.*) or Sumatra (*P. abelii*; *P. tapanuliensis*) in Indonesia. All three species are now recognized as Critically Endangered by the International Union for the Conservation of Nature (IUCN), having sharply declined in the Anthropocene due to habitat loss, exploitation, and fragmentation; hunting; and the illegal pet trade.

AZA Conservation Activities

According to the 2019-2021 AZA Annual Report on Conservation and Science (ARCS), 38 AZA members reported spending more than \$1.4 million on orangutan conservation. AZA facilities' orangutan conservation and research projects primarily focused on habitat protection and restoration, capacity building, and animal health.



AZA Public Engagement Activities

AZA support for orangutan conservation is evident in the enthusiastic response for public engagement opportunities made available through initiatives such as educational chats, public training and research sessions, and events such as International Orangutan Day. Celebrated around the world every August 19, International Orangutan Day aims to promote the conservation of critically endangered orangutans and encourage the welfare of their habitat. In 2023, 47 AZA zoos housing orangutans participated in International Orangutan Day either through in-person events or social media posts highlighting the species, encouraging conservation action, and sharing activities to engage visitors and followers in orangutan conservation issues. The Orangutan SAFE Education Team develops and distributes a Toolkit each year for International Orangutan Day. The Toolkit features games, crafts, scavenger hunts, and other interactive activities, and offers guidance on messaging, activities, and specific actions that our guests can take to help save orangutans. The Education team is available to assist any of our field partners with the development of educational materials for their communities. For instance, in collaboration with Bornean Nature Foundation, the Education team is developing a classroom booklet to be used in schools in Borneo. Other days throughout the year AZA zoos bring awareness to orangutans include Ape Awareness month, Missing Orangutan Mother's Day, International Primate Day, Orangutan Caring Week, World Rainforest Day, and Earth Day/Party for the Planet. The Orangutan SAFE website features the work of our field partners to share their stories and raise awareness around wild Orangutans and their conservation issues. Furthermore, our Get Involved section on the website outlines many ways that people can take action to protect habitat and help save wild Orangutans, including information about sustainable palm oil use.

Status of Species within the AZA Community

Orangutans have been exhibited in North American zoos since their importation in the early 1900s, with successful captive breeding taking place since the mid-1900s (Perkins, 2008; Elder, 2018). They are an iconic great ape, particularly due to extreme sexual dimorphism and the unique and distinctive cheek flanges of adult males. They are also the only great ape found outside of Africa; these factors help to make orangutans a popular species in zoos. The Orangutan Species Survival Plan (SSP) was initiated in 1985 and officially formed in 1988. Orangutans within the SSP are managed as two genetically separate breeding populations – the Sumatran and the Bornean. A third, non-breeding population made up of Sumatran x Bornean hybrids, also exists within the SSP. Because the species (at the time, subspecies) distinction was not clearly understood until the late 1980s, there was a sizeable population of “hybrid” orangutans in human care worldwide. In 1985, the Orangutan SSP adopted a policy placing a moratorium on the production of hybrid orangutans. The other regional zoo management programs (Europe and United Kingdom, Australia and New Zealand, Southeast Asia, Japan) adopted similar policies during the same time period. The recent discovery of a third species of orangutan, *Pongo tapanuliensis*, was announced in 2017 (Nater et al 2017). The SSP is currently working with the AZA Molecular Data for Population Management Scientific Advisory Group to determine potential impacts on current management strategy.

As of 21 January 2024, the SSP serves 51 accredited zoos across the U.S., Canada, and Mexico, and manages 218 total orangutans. At present, there are 98 (41.57) Bornean orangutans in 26 institutions, 92 (37.55) Sumatran orangutans in 25 institutions, and 29 (13.16) hybrid orangutans in 14 institutions. The Ape Taxon Advisory Group (TAG) has set the target population size at 100 individuals for each species in its 2014 Regional Collection Plan (RCP). Under AZA's sustainability designations the Bornean and Sumatran populations currently qualify as Green SSP Programs. Both populations are stable and self-sustaining, with small annual growth rates over the past 5 years (λ 1.014 and 1.000 for Borneans and Sumatrans respectively), and

the strong genetic profiles reflective of long-lived species (97.2% and 97.7% retained genetic diversity for Borneans and Sumatrans respectively, miniscule inbreeding, and an N_e/N ratio of 0.5034 and 0.5062 for Borneans and Sumatrans respectively). Over the past several years, minimally related or un-related individuals of both species have been imported into the SSP population from partner programs in other regions of the world (specifically from the Zoo and Aquarium Association, ZAA, program in Australia/New Zealand and the European Endangered Species Program, EEP, program in Europe). Less frequently, individuals from the SSP population have been transferred to zoos in these overseas regions. In all cases, such transfers have been made with a focus on the best long-term option for the individual orangutan, and on mutual benefit to the regional breeding and management programs involved.

Whereas orangutans within the SSP are extremely unlikely to ever be candidates for reintroduction efforts, they do play important roles as ambassadors to inspire advocacy and caring among zoo visitors, and to promote action for the species' protection and conservation in the wild.

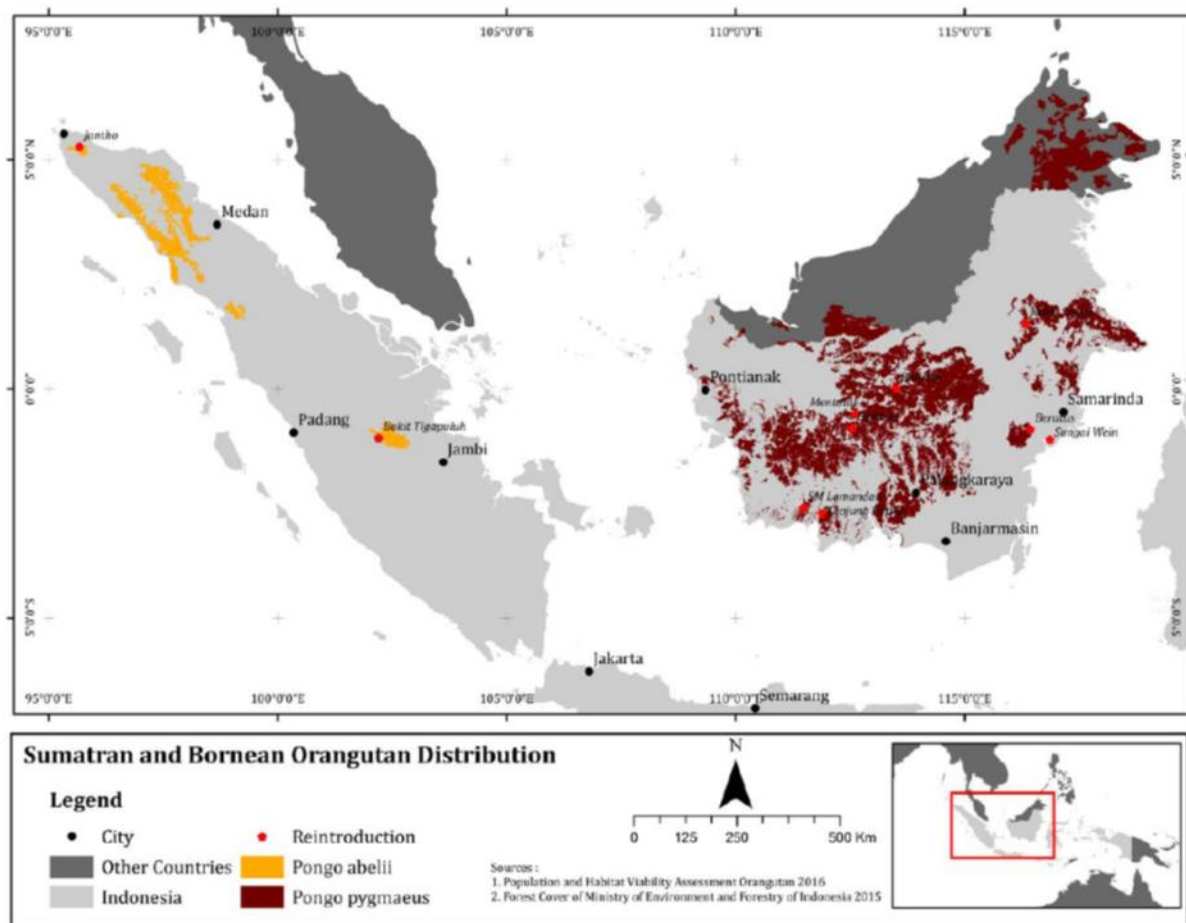
Conservation Status of the Species in the Wild

Bornean Orangutan (<i>Pongo pygmaeus</i>), Sumatran Orangutan (<i>Pongo abelii</i>), and Tapanuli Orangutan (<i>Pongo tapanuliensis</i>)	
United States Fish and Wildlife Service Endangered Species Status	Endangered
IUCN Red List Status	Critically Endangered

The iconic orangutan is isolated to the islands of Borneo and Sumatra and is the only great ape native to Asia. Although considered two species (Bornean orangutans, *Pongo pygmaeus* with 3 subspecies, and Sumatran orangutans, *P. abelii*) since 1996, the Tapanuli orangutan (*P. tapanuliensis*) was recognized as a separate species in 2017 (Nater et al 2017). The IUCN Red List designates all three species as Critically Endangered, and all orangutans in the genus *Pongo* are Endangered under the US Endangered Species Act. Despite approximately \$20 million invested in orangutan conservation, and the major threats to orangutans and the direct actions to solve them – reducing forest loss and poaching/hunting – identified decades ago (Meijaard et al 2012), wild populations of all three species of orangutans are in steady decline across their remaining ranges.

Orangutans are fully protected in Malaysia and Indonesia. Orangutan habitat, however, is not necessarily protected, with 20% of the current range in Sabah and 80% in Kalimantan outside of protected areas. Forest loss and fragmentation because of conversion to other types of land use (primarily agriculture and mining) and hunting due to conflicts, poaching, and for bush meat are the two major drivers for ongoing dramatic declines in orangutan populations across Borneo (Sabah Wildlife Department 2020). Other threats, including increasing human populations and development, forest fires, poor enforcement of wildlife law, and inconsistent policies on the management and function of forested areas, continue to exert downward pressure on orangutan populations.

Population and Habitat Viability Assessment



Indonesia, in collaboration with the IUCN, published an updated Orangutan Population and Habitat Viability Assessment (PHVA) in 2016. The 2016 PHVA updated distributions of Sumatran orangutans based on work by Wich et. al. and of Bornean orangutans based on deliberations and consensus among experts. There are no current plans for an updated PHVA beyond this 2016 one.

Species	Estimated Remaining Number of Individuals	Number of Populations	Number of Populations with Good to High Long-Term Viability
<i>Pongo abelii</i>	14,470 ± 2,350	10	2
<i>Pongo pygmaeus morio</i>	14,630 ± 1,330	17	6
<i>Pongo pygmaeus pygmaeus</i>	4,520 ± 790	8	3
<i>Pongo pygmaeus wurmbii</i>	38,200 ± 2,760	17	3

Assessments of Bornean orangutan population and habitat viability are difficult as a result of gaps in research and differences in GIS and site-based survey data. The only quantitative survey of Bornean orangutans was conducted in 2010. For this reason, viability assessments in the 2016 PHVA have the caveat that they should be used as guidelines only.

In Sabah, orangutan populations in interior forests have remained stable, while populations in heavily fragmented areas, such as the Lower Kinabatangan, have declined over the last 15 years (Simon et al 2019). As a result, 5 large meta-populations, mainly in protected areas of Sabah, of *Pp. morio* have promise for long-term viability. An additional 9 meta-populations across Malaysia and Indonesia have variable viability based on rates of habitat loss and orangutan removal. Three of 8 populations of *P.p. pygmaeus* (Betung Kerihun NP and Protection Forest, Batang Ai-Lanjak-Eniamu Landscape, and Danu Sentarum NP and Corridor) have good to high viability, while 3 are projected to be extinct within 100 years. *P.p. wurmbii*, the most populous subspecies, occurs in 17 meta-populations across West and Central Kalimantan. Despite a relatively large overall population size, the long-term viability of most meta-populations is moderate to poor as a result of ongoing habitat loss and orangutan removal. Importantly, the number of individuals remaining in these populations, as well as the amount habitat, means that almost all could be viable if habitat loss and orangutan removal were halted.

There is some disagreement among field conservationists regarding specific numbers of Bornean orangutans. Voight et al (2018) compiled orangutan surveys to develop a predictive density distribution model to estimate Bornean orangutan abundance and found significantly higher population sizes than the PHVA suggests. Regardless of the specific numbers, all agree that Bornean orangutan populations are under considerable pressure.

Eight wild populations of Sumatran orangutans were identified in the 2016 PHVA. However, none of these populations are considered viable for the long term (500 years), if current rates of habitat loss and orangutan removal continue. Two released populations may be viable if they continue to be supplemented with additional released animals.

In summary, the 2016 PHVA concludes that the long-term survival of both Bornean and Sumatran orangutans relies on immediate reduction in habitat loss, fragmentation, and harvest.

The Tapanuli orangutan exists only in the Batang Toru rainforest of northern Sumatra. It was not considered as part of the 2016 PHVA as it was not accepted as a separate species until 2017. A single population consisting of fewer than 800 individuals remain in an area of approximately 1,000 km², less than 5% of their historical range (Meijaard et al 2021).

Action Recovery and Management Plans

Indonesia adopted a national Conservation Strategy and Action Plan for the period 2007-2017. The Indonesian government released an updated plan in August 2019 but revoked the plan in October 2019 for “upgrades” related to a new moratorium on new permits for pulpwood and palm oil plantations in primary forests and peatlands. However, to date, the plan has not yet been released. The 2007-2017 Action Plan identified the following objectives:

1. Maintain the population and habitat for both Sumatran and Kalimantan orangutans in a stable condition
2. Accomplish the rehabilitation and reintroduction of captive orangutans into their wild habitats by 2015

3. Enhance public support for the conservation of Sumatran and Bornean orangutans in their natural habitats
4. Implement a management system that ensures the sustainability of orangutans and other natural resources by local Government, forestry industries, and plantation estates
5. Increase awareness of all stakeholders and general public on the existence of orangutans in their natural habitat

While there is no comprehensive Action Recovery Plan or systematic monitoring in place for the Bornean orangutan, area-based regional management plans guide local actions. In January 2020, the Sabah Wildlife Department published its Orangutan Action Plan for Sabah, 2020-2029. The Plan identified 5 key objectives:

1. Halt habitat loss and restore orangutan habitat across the landscape
2. Ensure better protection of orangutans across their entire habitat
3. Ensure that orangutans can survive in agricultural landscapes
4. Ensure the best ex-situ practices for orangutan management and conservation
5. Monitor and predict orangutan population trends

In the absence of current range-wide management plans, IUCN has identified similar conservation actions for all 3 species of orangutan in both Borneo and Sumatra, including site/area protection and management, legislation, and compliance and enforcement. The 2016 Orangutan and Population Viability Assessment (PHVA) largely mirrored IUCN's recommendations, calling for moratoriums on palm oil development and forest conversion (including within existing concessions), improved law enforcement, and better forest management.

In order to support the conservation actions recommended in the action recovery and management plans, Orangutan SAFE financially supports six in-situ conservation organizations across Borneo and Sumatra as our official field partners- Borneo Orangutan Survival Foundation (BOS), Ape Malaysia, Hutan, Borneo Nature Foundation (BNF), Gunung Palung Orangutan Conservation Program (GPOCP), and Sumatran Orangutan Conservation Programme (SOCP). Each year, our program funds raised by program partner dues are evenly distributed amongst these six organizations, earmarked specifically for certain projects within each organization that advance aspects of our main recovery objectives, ensuring AZA funding for orangutan conservation goes directly toward the efforts we believe will have the biggest impact on conservation of the species. Our program acts as a conduit between the field partners and the AZA community, as we are able to share with our program partners updates from our field partners, so they can share with their staff and visitors/followers exactly what their conservation funding is helping to accomplish.

Additionally, over the course of the term of this current program plan, we will use our position and relationship to with these organizations to facilitate partnership and best practice sharing amongst our field partners, including facilitating meetings and workshops bringing together representatives from the organizations to agree upon how they can align their work based upon the newest research and recommended actions.

Threats

Primary Threats to Orangutans

- Habitat loss and fragmentation
- Illegal hunting/trafficking and pet trade

Objectives

Recovery Objectives

Objective	
1.	Protect and Restore Orangutan Habitat Field partners CREATE, Ape Malaysia, BOSF, and SOCP have programs that contribute to forest restoration, monitoring, and protection in Borneo and Sumatra.
2.	Support Anti-poaching and Wildlife Trafficking Prevention Efforts Funding support for this objective is directed towards confiscation, translocation, and post-release monitoring efforts of Orangutans and threats to their survival with our field partner BOSF and SOCP. GPOCP tracks cases of illegally held orangutans and assists in rescues.
3.	Continue and Enhance Research Related to Orangutan Distribution and Numbers HUTAN is a field partner researching orangutan populations in mixed area usage while SOCP monitors orangutans post release to understand behaviors and distribution in protected areas.

Awareness Objectives

Objective	
4.	Expand resources available to AZA organizations, the general public and OSAFE partner organizations
5.	Provide AZA accredited organizations/programs with resources to communicate orangutan conservation messaging on grounds and virtually, throughout the year

Engagement Objectives

Objective	
6.	Ensure that 100% of AZA housing orangutans participate in International Orangutan Day by engaging their audiences in activities that promote conservation action.
7.	Encourage communities and stakeholders in Borneo & Sumatra to participate in orangutan conservation efforts.

Fundraising Objectives

Objective	
8.	Increase funding provided to in-situ orangutan conservation.
9.	Serve as a resource for funding key orangutan conservation priorities

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Orangutan SAFE Species 3-year Action Plan (2023-2025)

Recovery Objectives								
Strategic Objective 1. Protect and Restore Orangutan habitat in Borneo and Sumatra								
Number	Action	Metric	Time Frame			Budget	Field Partners	Notes
			2023	2024	2025			
1.1	Increase forest restoration and corridor connection activities. Establishing local green houses	5,000 of saplings planted per year 15,000 trees maintained a year	X	X	X	\$8/sapling	APE Malaysia	Through APE Malaysia's Project Create
1.2	Increase protection activities of orangutan habitat	Increase forest protection monitoring Development of short- and long-term forest management plans	X X	X X	X X	\$36,000/annual firefighting team salaries \$51,000/annual patrol team salaries \$33,000/establish one social forestry village	Bornean Nature Foundation	Patrols, area, frequency, and/or people
1.3	Promote awareness of FSC certification	Distribution of tool for AZA institutions to use to identify FSC-certified wooden tools for purchase, and tracking data on the increase of sustainable tools being ordered at AZA institutions as a result Provide resources for AZA institutions engage visitors and promote actions around FSC certification/sustainable consumer choices, such as downloading the palm oil app and making pledges to purchase	X	X	X			Toolkit being developed as part of SAFE PACT pilot project, in conjunction with Asian Hornbill SAFE

		FSC-certified wood/paper products						
Strategic Objective 2. Support Orangutan Anti-Poaching and Wildlife Trafficking Prevention								
Number	Action	Metric	Time Frame			Budget	AZA Members & Field Partners	Notes
			2023	2024	2025			
2.1	Confiscation and translocation of orangutans to appropriate habitats in county, based on site-specific release plans	Increase support of orangutan release programs	X	X	X	\$15,000/ one orangutan Release	Bornean Orangutan Survival Foundation	Restorasi Habitat Orangutan Indonesia (RHOI) project
2.2	Orangutan habitat monitoring for prevention of wildlife trafficking and poaching	Drone for monitoring protected areas Regular Drone Observations Foot Patrols	X	X	X	\$6,000 \$500/daily patrol	Sumatran Orangutan Conservation Program (SOCP) SOCP, BOSF	BOSF patrols and protects 309,000 ha in the Mawas conservation area for illegal activities, fire prevention and control, and logging.
2.3	Wildlife crime investigation	Increase in field investigations to track cases of wildlife crime, chiefly cases in which orangutans are being illegally held captive and/or traded in the underground economy	X	X	X	\$1,000/month for wildlife crime investigations	Gunung Palung Orangutan Conservation Program	
Strategic Objective 3. Continue and Enhance Research Related to Orangutan Distribution and Numbers								
Number	Action	Metric	Time Frame			Budget	Field Partners	Notes
			2023	2024	2025			
3.1	Research wild orangutan	1) Support research that monitors orangutan	X	X	X		HUTAN, SOCP	

	reproduction, ecology, behavior, and health.	populations at sites important for long-term population sustainability to identify population trends and conservation threats 2) Investigate grant opportunities to support research						
3.2	Understand the impacts of oil palm on orangutans	Support research regarding oil palm mapping	X	X	X	\$20,000	SOCp	

Engagement Objectives

Strategic Objective 4. Ensure that 100% of AZA housing orangutans participate in International Orangutan Day by engaging their audiences in activities that promote conservation action.

Number	Action	Metric	Time Frame			Budget	Partners	Notes
			2023	2024	2025			
4.1	Update and distribute a toolkit for International Orangutan Day annually	1)Track number of AZA institutions utilizing the toolkit via surveys and bit.ly link/website tracking annually	X	X	X	\$600 annually	All AZA institutions, field partners, and Orangutan SSP	International Orangutan Day occurs annually on August 19 th . We recognize that organizations may choose to celebrate on a weekend shouldering this date; we define engagement as a social media post or in-person or virtual activities or events
		2)Track number of AZA institutions celebrating International Orangutan Day annually via social media and surveys, calculate social engagement of social media posts	X	X	X			
		3)Use surveys to qualify how guests are interacting with the toolkit and how this engagement increases likelihood of taking conservation action on	X	X	X			

		behalf of orangutans; use data to prove an increase of actions being taken by guests, such as downloading palm oil app, purchasing sustainable wood/paper products, or supporting their local zoo's conservation efforts, as a result of interaction with elements of the toolkit.						
Strategic Objective 5. Encourage communities and stakeholders in Borneo & Sumatra to participate in orangutan conservation efforts.								
Number	Action	Metric	Time Frame			Budget	AZA Members & Field Partners	Notes
			2023	2024	2025			
5.1	Engage with in-situ field partners to determine what resources field partners feel they need	Develop surveys and informal meetings to determine from partners what their biggest needs are so our education team can find the most beneficial areas to assist Creation of educational materials related to grant-funded work from field partners	X X	 X	 X	 \$25,000	All field partners HUTAN/Wildlife Impact	Present findings from the grant at AZA conferences and determine what resources zoos will need to promote awareness of new conservation strategies
5.2	Create and distribute educational resources to local communities based on the identified needs	Implementation of activities and pre and post surveys to identify impact on knowledge and attitude of local people Work with field partners on the co-creation of educational materials to be used in local schools, which will focus on local conservation actions		X X	X X		HUTAN/Wildlife Impact BNF	Creation of activity sheets, booklets, digital and physical signage, etc. for in-situ partners to support local conservation and education messaging, created with the partners to ensure the activities meet the needs and are properly and respectfully adapted to the local audiences.

Awareness Objectives

Strategic Objective 6. Expand resources available to AZA organizations, the general public and OSAFE partner organizations throughout the year.

Number	Action	Metric	Time Frame			Budget	AZA Members & Partners	Notes
			2023	2024	2025			
6.1	Update and maintain Orangutan SAFE website	1) Increase in the amount of content available on the website 2) Track website usage data and look to increase website traffic year over year	X	X	X	\$250 annually	All AZA organizations, field partners, and general public	Strategies to increase website traffic include increasing awareness of the website in the AZA community, encouraging program partners to link to the website in their social media posts and orangutan fact pages on their websites, working with Google to increase search rankings, and looking into ads.
6.2	Provide visitors, field partner education teams, and the general public with orangutan conservation activities and resources year-round	1) Create and maintain a library of orangutan activities and lesson plans on the website that can be used by all AZA intuitions, field partners, or school classrooms around the world 2) Develop Orangutan SAFE programming in-house 3) Provide opportunities for orangutan conservation researchers, NGOs, and partners to share current orangutan conservation efforts through presentations in person and/or webinars.	X X	X X	X X		All AZA organizations, field partners, and Orangutan SSP	Strategies to increase public knowledge of these resources include social media posts from our partners linking to these materials on the website, sending links to materials on the AZA network, and developing relationships with local schools in the United States and abroad. Website tracking data will allow us to track how many individuals are downloading these resources, and future surveys will aim to dive into more detail about how they are being used.

Strategic Objective 7. Provide AZA accredited organizations/programs with resources to communicate orangutan conservation messaging on grounds and virtually, throughout the year

Number	Action	Metric	Time Frame			Budget	AZA Members & Field Partners	Notes
			2023	2024	2025			
7.1	Connect visitors and social media followers with orangutan conservation messages year-round	Create and distribute common social media messaging, exhibit graphic messaging, updated with orangutan conservation information	X	X	X		All AZA organizations, field partners, and Orangutan SSP	

Funding Objectives

Strategic Objective 8. Increase the amount of funds for orangutan conservation

Number	Action	Metric	Time Frame & Budget			Budget	AZA Members & Partners	Notes
			2023	2024	2025			
8.1	Grow Orangutan SAFE fund by increasing the number of Orangutan SAFE program partners	Add new Orangutan SAFE Partners each year	X	X	X			Orangutan SAFE Program Partnership requires a 3-year commitment of at least \$1,000 annually to Orangutan SAFE focused conservation objectives
8.2	Increase the number of AZA organizations housing orangutans contributing to in-situ Orangutan SAFE focused conservation initiatives annually, either through direct donations to OSAFE or directly to field partners	Grow each year the number of AZA organizations housing orangutans contributing to orangutan conservation	X	X	X			According to the 2021 ARCS report, 38 AZA accredited facilities spent over 1.4 million on orangutan conservation

Strategic Objective 9. Serve as a resource for funding key orangutan conservation priorities.

Number	Action	Metric	Time Frame & Budget			Budget	AZA Members & Partners	Notes
			2023	2024	2025			
9.1	Use Orangutan SAFE website to raise money from the general public toward orangutan conservation	Ability of the website to collect money toward the Orangutan SAFE Fund		X	X			The website would function as a guide to inform potential donors what their money would be going towards
9.2	Function as a liaison between zoos and field partners when zoos are looking to donate money to orangutan conservation apart from Program Partner dues	Increase of the number of projects from field partners being supported by AZA zoos	X	X	X			