SAFE ASIAN ELEPHANT

PROGRAM PLAN 2024-2026

SAFE®
SAVING ANIMALS FROM EXTINCTION
ASIAN ELEPHANT

AUTHORS:
Adam Felts, Columbus Zoo and Aquarium
Rachel Emory, Oklahoma City Zoo
Danielle Ross, Columbus Zoo and Aquarium

Cover photo: Gillian Lang, Oklahoma City Zoo

TABLE OF CONTENTS

Conservation Target..... pg. 2

Conservation Status of Asian Elephants..... pg. 3

Status of Asian Elephants within the AZA Population..... pg. 4

AZA Conservation Activities..... pg. 4

Threats to Asian Elephants ..... pg. 5

Recovery Plan..... pg. 5

Program Operational Structure..... pg. 7

Program Vision and Goals ..... pg. 8

Program Participation Requirements..... pg. 9

Program Progress 2020-2023 ..... pg. 9

Program Objectives 2024-2026..... pg. 11

Strategy Working Plan..... pg. 21

References..... pg. 26

Appendix 1: AZA Elephant Field Conservation: 2013-2017..... pg. 28

SAFE SAVING ANIMALS FROM EXTINCTION ASIAN ELEPHANT

Conservation Target

Asian elephants (*Elephas maximus*) have been part of the cultural heritage of many Asian countries for centuries. Unfortunately, their populations are declining, with only 41,410–52,345 individuals remaining [3]. Conservation success in Asian elephant range countries depends on strong government commitment and oversight, a functional and effective legal system, and a human population interested in the survival of their elephants while also benefiting from wildlife and habitat conservation.

Tapping into the expertise of the IUCN Asian Elephant Specialist Group (AsESG), supporting the intent and commitment of range state governments as demonstrated in the 2017 *Jakarta Declaration for Asian Elephant Conservation* [1], the 2022 *Kathmandu Declaration of Asian Elephant Conservation* [2] and other working strategic partners, the SAFE Asian Elephant Program (SAEP) will assist in developing critical tools and resources that will benefit Asian elephant populations in their range states and the human communities that live near and support these populations.

Credit: Amanda Carberry, Columbus Zoo and Aquarium

It is the communities living with and around elephants that will save Asian elephants from extinction. As part of this work, SAEP will target elephant populations that impact human livelihood the most, which are generally Human Elephant Conflict challenges and elephants in human care (an estimated 14,142 individuals [2]) of the total population). The key to saving Asian elephants from extinction is working with communities and governments, understanding they are an important part of the culture, affect the livelihood of the human population, and elephants in human-care may act as a genetic reservoir for declining wild populations.

This action plan represents an opportunity for AZA institutions to collaborate and pool resources (an AZA Task Force Initiative) together to have a direct impact on the conservation issues and priorities identified by the governments of the Asian range countries that have the Asian elephants. This AZA collaboration will demonstrate to the governments the potential impact zoos can contribute to the issues facing their communities.

SAFE SAVING ANIMALS FROM EXTINCTION ASIAN ELEPHANT

Conservation Status of Taxa

The IUCN Red List of Threatened Species and the US Fish and Wildlife Services (USFWS) have classified the Asian elephant (*Elephas maximus*) as endangered. With populations decreasing over the last century, the estimated population size is 41,410–52,345 individuals [3]. Asian elephants are also included in CITES Appendix I indicating they are threatened with extinction [4] and have declined by nearly 50% over the last three generations from more than 100,000[5]. IUCN identifies three subspecies of the Asian elephant: *E.m. indicus* on the Asian mainland, *E.m. maximus* on Sri Lanka, and *E.m. sumatranus* on the Indonesian Island of Sumatra. Borneo elephants have been considered a sub-species in the past [3].

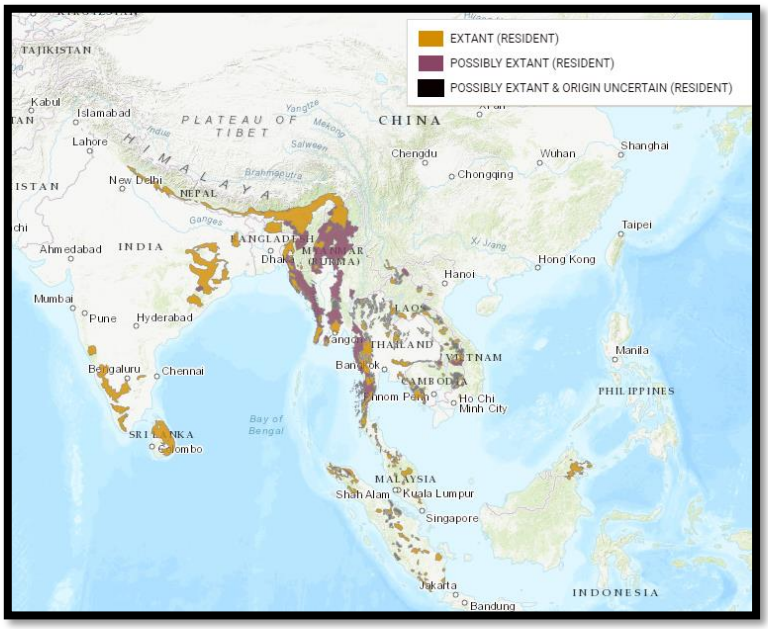

Figure 1. Current range of the Asian elephant [6]

From the latest Asian Elephant Range States Meeting held in April 2022, the populations of elephants are as follows:

Table 1. Approximate elephant populations by country [15]

Country	Wild population	Captive population
Nepal	203 - 277	176
Bangladesh	268	96
Bhutan	605 - 761	9
Cambodia	400 - 600	71
China	300	200
India	29,291 - 30,711	3,467 - 3,667
Indonesia	924 - 1,359	467
Lao PDR	300 - 400	350 - 450
Peninsular Malaysia	1,220 - 1,680	86
Sabah	1,000 - 1,500	23
Myanmar	1,200 - 2,000	5,000
Sri Lanka	5,879	364
Thailand	3,168 - 3,481	3,783
Vietnam	109 - 134	8
Total	**44,897 - 49,350**	**14,100 - 14,400**

SAFE SAVING ANIMALS FROM EXTINCTION ASIAN ELEPHANT

Status of Taxa within the AZA Population

Asian elephant populations within the Association of Zoos and Aquariums (AZA) institutions are managed under a Species Survival Program (SSP). In 2021, the AZA Asian Elephant Task Force was created to guide the necessary work and changes needed to achieve a paradigm shift to ensure a sustainable population for the future. One vital component of this strategy is ensuring that AZA institutions prioritize the collective needs of the population over individual, organizational desires. In addition, this paradigm shift will align AZA organization goals for conservation efforts to be more collaborative, specifically supporting the needs of the range states, rather than individual AZA Zoo preferences.

As listed in the 2023 *Population Analysis and Breeding and Transfer plan*, the AZA Asian Elephant population currently consists of 137 animals, comprised of 31 males and 106 females, at 33 institutions (32 AZA-accredited facilities and 1 AZA Approved Sustainability Partner) [7]. The currently living SSP population's pedigree is 95.9% known due to nine animals having all or some portion of their pedigree unknown. Pedigree assumptions were created to address this unknowingness and to complete the pedigree of the potential breeding population. Sixty-eight animals are excluded from the breeding population due to age and reproductive status. After these assumptions and exclusions, the potential breeding population of Asian elephants consists of 69 (30.39) individuals with a 100% known pedigree.

Credit: Grahm S. Jones, Columbus Zoo and Aquarium

AZA Conservation Activities

AZA institutions have a long history of supporting Asian elephant conservation, with 68 institutions contributing to research and conservation projects between 2018 and 2021 [16]. Many zoos contribute to Asian elephant conservation through the International Elephant Foundation (IEF), a US-based non-profit organization with which AZA intuitions have had a long-term partnership. In addition, AZA Zoos have contributed to 61 projects related to Elephant Endotheliotropic Herpes Virus since 2018 [16]. Through these collective efforts, AZA institutions have contributed funds and expertise to address issues facing Asian elephants in their natural habitats, such as human-elephant conflict, deforestation, disease, illegal logging, and supporting the local communities [8]. Because of the commitment of AZA institutions to elephant conservation, the expertise in the management of Asian elephants, and the educational activities, this program will directly align with increasing awareness of Asian elephant conservation with measurable outcomes.

Threats to Asian Elephants

Primary threats to wild Asian elephants: [1]

1. Illegal killing and trade
2. Habitat loss, fragmentation, degradation (illegal harvesting, etc.)
3. Human-elephant conflict

Threats to captive Asian elephants: [10]

1. Illegal trade
2. Lack of enforcement of laws about elephants
3. Outdated and inefficient registration systems
4. National responsibility for elephants shared among multiple agencies
5. Challenges of excessive populations of former labor elephants
6. Lack of research and strategies for future threats to managing captive elephants

Figure 2. Human population in Asian countries [9]

Recovery Plan

Credit: Grahm S. Jones, Columbus Zoo and Aquarium

The *Kathmandu Declaration for Asian Elephant Conservation* [2] was produced at the Asian Elephant Range states Meeting in April 2022 in Kathmandu, Nepal. This range states meeting included government officials, NGOs, and other experts from all of the range states and provided information and priorities agreed upon by these countries. The SAEP works closely with the AsESG Chair and Vice-Chair to align the priorities determined from this meeting to develop the program recovery plan.

Executive Summary from the Kathmandu Declaration for Asian Elephant Conservation [2]:

<u>Thus, we declare:</u>

- *To enhance cooperation between the thirteen range states both bilaterally and multilaterally, promoting transboundary conservation of the Asian Elephant and sharing and learning to enhance national conservation measures;*
- *To promote coexistence by minimizing the negative impacts of humans on Asian Elephants and their habitats, address the root causes of human-elephant conflict, and develop long-term solutions to minimize such conflict; engage with local communities to gain their participation in biodiversity conservation and land-use planning; and provide sustainable and alternative livelihoods through financial support, technical guidance and support, and other measures;*

SAFE SAVING ANIMALS FROM EXTINCTION ASIAN ELEPHANT

- *To ensure effective law enforcement across the species' range to prevent illegal killing of Asian Elephants and the illegal trade in live Asian Elephants, ivory and its derivatives, and other elephant body parts;*
- *To promote and ensure the welfare of captive elephants is maintained at all times;*
- *To strengthen international collaboration, coordination, cooperation and communication based on bilateral and multilateral agreements where relevant, involving specialized expertise from national and international organizations, including but not limited to AsESG, IUCN SSC, CITES, INTERPOL, CBD, CMS, UNEP, ASEAN-WEN, SAWEN, and UNODC;*
- *To set up through appropriate mechanisms an Asian Elephant Fund, accessible to range states and range state civil society, to promote conservation of the species and its habitat;*
- *To develop an appropriate data sharing mechanism among range states; Commit to develop, where necessary, and where applicable implement National Asian Elephant Conservation Action Plans that include, but are not limited to, the priorities listed in the annex to this Declaration.*
- *And call upon the international community to join us in addressing the challenges facing Asian Elephants and achieving a harmonious coexistence between humans and Asian Elephants.*

Annex: Priority Commitments by 2025

- *Promote the maintenance and connectivity of large Asian Elephant conservation landscapes where new permitted developmental activities such as linear infrastructures are elephant- and biodiversity-appropriate;*
- *Promote the development of national guidelines on wildlife friendly linear infrastructure, including elephant, based on those developed by the Asian Elephant Specialist Group of the IUCN SSC and Connectivity Specialist Groups after range states consultations;*
- *Develop bilateral transboundary agreements, protocols or understandings in relevant countries to ease movement of Asian Elephants through appropriate corridors and transboundary protected areas;*
- *Collectively develop, where relevant, and coordinate captive Asian Elephant registration programs in relevant countries, based on scientific research including, where appropriate, microchipping and/or DNA-based systems, and ensure cross-border movements of captive Asian Elephants are in compliance with all national and international laws and regulations;*
- *Ensure that all range states have a National Asian Elephant Conservation Action Plan;*
- *Promote the development of national guidelines on Human Asian Elephant Conflict mitigation based on those developed by the Asian Elephant Specialist Group of the IUCN SSC after range states consultations.*
- *The range states support the development of range-wide Asian Elephant Conservation Plan by the Asian Elephant Specialist Group of the IUCN SSC;*
- *The range states initiate the establishment of a national Asian Elephant Database with the technical support of the Asian Elephant Specialist Group of the IUCN SSC and CITES MIKE/ETIS;*
- *The range states jointly initiate the creation of an Asian Elephant Fund assisted by the Asian Elephant Specialist Group of the IUCN SSC.*

Program Operational Structure

Table 2. Program operational structure

Asian Elephant SAFE Program Structure and Partners			
Partner	**Institutional Representative**	**Role**	**Contact Email**
Columbus Zoo	Adam Felts	Program Leader	Adam.felts@columbuszoo.org
Oklahoma City Zoo	Rachel Emory	Vice Program Leader	remory@okczoo.org
ABQ Bio Park	Amber Alink	Steering Committee	aalink@cabq.gov
Cincinnati Zoo	Christina Gorsuch	Steering Committee	Christina.Gorsuch@cincinnatizoo.org
Columbus Zoo	Danielle Ross	Steering Committee	danielle.ross@columbuszoo.org
Denver Zoo	Brittany Frederick	Steering Committee	BFrederick@denverzoo.org
Los Angeles Zoo	Jake Owen	Steering Committee	jake.owens@lacity.org
Oregon Zoo	Steve Lefave	Steering Committee	steve.lefave@oregonzoo.org
Rosamond Gifford Zoo	Ashley Sheppard	Steering Committee	AshleySheppard@ongov.net
Tulsa Zoo	Jordan Piha	Steering Committee	jpiha@tulsazoo.org
Audubon Zoo	Mandy Turnbull	AZA Program Partner	mturnbull@audubooninstitute.org
Busch Gardens	Jordan Hayes	AZA Program Partner	jordan.hayes@buschgardens.com
Buttonwood Park Zoo	Shara Rapoza	AZA Program Partner	sharac@newbedford-ma.gov
Columbus Zoo	Michael Kreger	AZA Program Partner	Michael.Kreger@columbuszoo.org
Dickerson Park Zoo	Mike Crocker	AZA Program Partner	Mcrocker@springfieldmo.gov
Little Rock	Syd Tanner	AZA Program Partner	stanner@littlerock.gov
Saint Louis Zoo	Tim Thier	AZA Program Partner	tthier@stlzoo.org
San Antonio Zoo	Sam Peterson	AZA Program Partner	sam.peterson@sazoo.org
The Elephant Sanctuary	Janice Zeitlin	AZA Program Partner	janice@elephants.com
Topeka Zoo	Dennis Dinwiddie	AZA Program Partner	ddinwiddie@topeka.org
Aceh Center for Wildlife Studies	Wahdi Azmi	Field Partner	wahdiazmi@yahoo.com
African Lion Safari	Charlie Gray	Field Partner	cgray@lionsafari.com
Asian Elephant Support	Linda Reifschneider	Field Partner	lwreifschneider@sbcglobal.net
Colossal Biosciences	Matt James	Field Partner	mjames@colossal.com
EEHV Advisory Group	Erin Latimer	Field Partner	latimere@si.edu
Elephant Managers Association	Tripp Gorman	Field Partner	trippgorman@gmail.com
International Elephant Foundation	Deborah Olson	Field Partner	dolson@elephantconservation.org
IUCN's Asian Elephant Specialist Group	Heidi Riddle	Field Partner	gajah26@gmail.com
Species 360	Peter Donlon	Field Partner	peter.donlon@species360.org
US Fish and Wildlife	Cory Brown	Field Partner	Cory_Brown@fws.gov
University of Indiana Bloomington	Dr. Daniella Chusyd	Field Partner	dchusyd@iu.edu

SAFE Asian Elephant Program Vision and Goals

The vision of the SAEP is to build and impact Asian elephant conservation through a consistent presence and active role in the region where Asian elephants can be found and to be seen as a conservation partner for the range countries. The SAEP will increase the impact and opportunities that AZA institutions have on Asian elephant conservation in all 13 range countries by working closely with the IUCN's AsESG and supporting range state priorities.

Credit: Rachel Emory, Oklahoma City Zoo

The goal of the AZA SAFE Asian Elephant Program is to enhance and assist Asian elephant conservation efforts within the 13 range countries by providing AZA partners a guideline when prioritizing institutional conservation (as well as reporting these conservation efforts) and tangible projects that institutions can support through funding and expertise. The IUCN Red List of Threatened Species indicates that the Asian elephant is endangered and is included in CITES Appendix I, indicating that they are threatened with extinction [4]. Asian elephants have declined by nearly 50% over the last three generations, from more than 100,000 animals to less than 50,000 [3]. With 20% of the world's human population living in or near the present range of the Asian elephant, 30% of the Asian elephant population remaining in human-managed settings [8], and the continued destruction of their habitat, human interactions in the region are of serious concern. Therefore, the SAEP will strive to ensure this species' survival by concentrating efforts on identified priorities of the range states through the range state reports, the *Kathmandu Declaration for Asian Elephant Conservation*, and a close partnership with the IUCN's Asian Elephant Specialist Group.

Program Plan Participation

To qualify as a partner of the SAFE Asian Elephant Program, AZA institutions must fulfill an annual conservation and awareness support requirement.

1) Conservation support: it is recommended that organizations provide a minimum of $2,000 annually in financial support to the SAEP initiatives and/or Asian elephant conservation projects that directly support the priorities outlined in the *Kathmandu Declaration for Asian Elephants* (see page 5).
2) Awareness support: organizations must participate in program awareness event initiatives (i.e., Asian Elephant Awareness Month) and/or provide content for the SAEP social media pages.

SAFE Asian Elephant Program Progress 2020-2023

The SAEP successfully achieved the following actions toward the three designated objectives from the 2020-2023 action plan. In addition, an additional opportunistic objective was added in 2022 and supported by the program.

Objective 1: Enhancement of a range state captive registry program (from *Jakarta Declaration for Asian Elephant Conservation*)

a. The SAEP financially supports the enhancement of Indonesia's captive elephant population, including the critically endangered Sumatran elephant. Strong partnerships were developed between SAEP and field partners in Indonesia.
    i. The goal of this initial enhancement project was to provide funding for the DNA identification of all captive elephants. This project is ongoing.
b. The SAEP applied for and secured an AZA Conservation Grant for $23,350.00 to support this initiative.
c. Through a partnership with Colossal Biosciences, $25,000 in support was provided to field partners at the University of Indiana, Bloomington, to support the development of photo recognition technology to aid range countries in identifying captive elephants.

Objective 2: Public Awareness and Education Campaign

a. In August 2019, the SAEP launched its inaugural Asian elephant awareness month campaign in collaboration with IEF). The purpose of this campaign was to raise awareness of the plight of Asian elephants, using social media channels as our primary method of message delivery. The original metric was to achieve 40,000 likes, comments, and/or shares. That number was intentionally chosen to represent the number of Asian elephants remaining in the wild. During year one, these Asian elephant messages reached over 1.6 million people, with 89,974 reactions (likes, comments, shares), more than twice our goal.
b. In 2022, the most recent campaign year, this reach has dramatically expanded, with over 132,200 engagements (likes, comments, or shares) and over 49.3 million reach.
c. Originally, the goal was to engage with North American audiences through the social media channels used by zoos that hold Asian elephants. In 2022, that reach has expanded to international audiences, specifically Asian elephant range states. Of the 40+ participating organizations, at least 14 were

conservation organizations focused on Asian countries. In addition, the campaign has also been shared by Peppermint Narwhal Creative, a well-known organization that supports animal awareness through creativity.

d. Social media messages shared through conservation partners were created by those partners to ensure their messages were suitable for their audiences, as the SAEP messages were written for North American audiences.

Objective 3: EEHV monitoring and treatment support in range states

a. A "How to Host Fundraiser" toolkit was developed and distributed to all AZA Asian elephant holding facilities.
b. A total of nine ECP-driven fundraisers were held across four organizations. In addition, two organizations made general donations to the objective. A total of $21,210 was raised.
c. Program partners produced an EEHV informational video and distributed it via social media. EEHV infographics and text content was incorporated into the Asian Elephant Awareness Campaign.
d. SAEP representatives presented on EEHV monitoring and treatment at two virtual Wildlife Disease Investigation webinars held in Nepal and India.
e. In collaboration with Asian Elephant Support (AES), the SAEP provided $7,000 in financial support for the Southern Thailand Mahout Training Workshop. Representatives from SAEP attended and presented on EEHV monitoring and treatment. Educational materials were provided for the 80 mahouts in attendance.

Additional objective: AsESG Support

a. Seven program partners made a four-year annual commitment to financially support the objectives of the AsESG. To date, $10,600 in financial support has been provided to the AsESG.

SAFE Asian Elephant Program Objectives 2024-2026

Utilizing the strengths and expertise of the dedicated professionals at AZA institutions and AZA partners, the SAEP aims to contribute to Asian elephant conservation through the following objectives:

1. **Provide financial support to the IUCN's Asian Elephant Specialist Group for outreach and addressing Human Elephant Conflict.**

2. **Aid range countries with elephants in human-care by supporting the components for the development or enhancement of an elephant registry system within those countries. This may include:**
    a. Assisting with funding of supplies, such as microchips.
    b. Supporting DNA mapping of captive populations where applicable
    c. Providing technical expertise needed to curate a large captive population of animals
    d. Funding and assisting with elephant recognition and ID technology

3. **Support the treatment and management of EEHV and other diseases in Asian elephants within range states. This may include:**
    a. Provide resources to increase awareness of the epidemiology, diagnosis, and treatment of EEHV in regions with significant calf birth rates
    b. Providing resources for capacity building of elephant training and medical treatment
    c. Providing funding for medical supplies, testing, and treatment facilities for the management of elephant disease

4. **Globally enhance knowledge and awareness of the conservation of Asian elephants through communication strategies, including the August Asian elephant awareness campaign.**

SAFE SAVING ANIMALS FROM EXTINCTION ASIAN ELEPHANT

Objective 1: Provide financial support to the IUCN's Asian Elephant Specialist Group for outreach and addressing Human Elephant Conflict

The IUCN's Asian Elephant Specialist Group (AsESG) is a global network of specialists studying, managing, monitoring, and conserving Asian elephants across their 13 range states in Asia [11]. This group aims to improve the conservation prospects of Asian elephants across all 13 range States through assessment, conservation planning, conservation actions, and policy interventions in collaboration with range country governments and international partners. This group works closely with local communities, NGOs, and government entities to address the priorities for Asian elephant conservation as outlined in the Kathmandu Declaration. By building a strong relationship with the AsESG, the AESP will be able to have a continued presence and impact on conservation efforts.

The AsESG specifically aims to [12]:

- Map the distribution of elephants in all 13 range states
- Help in National Red Listing of elephants in Sabah Malaysia, Vietnam, and Cambodia
- Help select range states draft their National Elephant Conservation Action Plan
- Along with WCPA, develop best practices for infrastructures passing through elephant habitats in Asia
- Increase public understanding about the challenges to conservation of elephants in Asia through the AsESG website, and showcasing elephant conservation strategies/plans/guidelines and success stories at major conventions and meetings
- Communicate elephant conservation and research on Asian elephants through the AsESG journal
- Diversify AsESG skill sets and geographic representation through increased membership, youth mentorship, and facilitate collective planning with the range states, elephant experts and partners
- Coordinate with all 13 range states on elephant conservation issues and policy interventions

Funding for core initiatives will be based on the annual needs of the AsESG members. In this action plan, core initiatives may include funds used to support the HEC guidelines by supporting the Program Manager of the AsESG and key travel for the AsESG to promote, initiate, and approve the HEC guidelines. All funds will be allocated at the discretion of the SAEP steering committee.

The SAEP is committed to supporting priorities set forth by the *Kathmandu Declaration for Asian Elephant Conservation*, which strongly influences governmental prioritization of elephant conservation. In addition, the SAEP encourages AZA partners to align all institutionally driven conservation work with the priorities listed in the document. During the 2019 Range State Meeting, human elephant conflict mitigation was highlighted and considered a crucial aspect of successful Asian elephant conservation. This topic was deemed one of the priorities for the *Kathmandu Declaration for Asian Elephant Conservation*. To address this priority, the IUCN's AsESG has initiated the development of formalized HEC guidelines to be produced and distributed in all 13 range states. These guidelines will first be completed in English before translation and tailoring to the specific needs of each range state. The primary document will be completed in year one with a goal of distribution in three countries per year following.

The guidelines will be adapted to each country following the initial publication due to the following:

1. The unique cultural, political, and economic contexts of the HEC situation in each country;
2. The complicated relationships between the different groups of people involved in various elephant ranges;
3. Each case is unique, and solutions are rarely transferable from one situation to another;
4. Effective methods of damage and retaliation control may be socially unacceptable or financially unsustainable in different countries; and
5. Decision-making processes may not be uniform and may differ across elephant range countries.

The content of the Guidelines shall focus on understanding and resolving human-elephant conflict in 3 phases:

1. Stakeholders to be involved in achieving lasting co-existence
2. Understanding the complexities of HEC
3. Best approaches and solutions that benefit people and elephants

The SAEP will complete objective one by designating funds to support the AsESG's initiatives of creating and implementing the Human Elephant Conflict Guidelines and providing funding for core support. The IUCN HEC Guideline will adapt the IUCN *Human Wildlife Conflict and Coexistence (HWCC) Guidelines* [13], explicitly focusing on human-elephant conflict. These guidelines will improve the management of HEC by providing foundations and principles for good practice, with clear, practical guidance on how best to approach HEC and promote coexistence with elephants. The AsESG and the SAEP will work in conjunction with Alexandra Zimmermann, the Chair of IUCN SSC Human Wildlife Conflict & Coexistence Specialist Group and convener of the HWCC Guidelines, to collate and create an elephant specific publication that will then be utilized in range countries. Alexandra Zimmermann's office will take the lead in coordinating with authors (utilizing interns to assist with this work) who have drafted chapters in HWCC Guidelines and adapting those chapters to a HEC Guideline. Alexandra Zimmerman is well-versed with the development of this process and familiar with the rules and procedures laid out by IUCN. Once developed, this publication will be sent for approval of IUCN.

Although AZA institutions may not have the expertise to develop solutions to HEC, together, we do have the capacity to fund this initiative, which would enhance our relevance in range countries and have a substantial impact on supporting communities and countries facing this crisis. To accomplish this, the SAEP program will approach AZA institutions and program partners to provide a financial contribution of at least $2,000 annually and aim to grow the program partner base to acquire the necessary funds.

The IUCN AsESG and the program leader for the SAEP have worked together to create a 3-year action plan, timeline, and action steps to ensure this priority from the *Kathmandu Declaration for Asian Elephant Conservation* is complete by the year 2026. SAEP leadership will partner with the AsESG to organize, facilitate, and ensure the actions identified in this plan will be accomplished. The role of the SAEP during this process will be to identify funding through AZA and non-AZA partners, submit grants to appropriate granting opportunities (USFWS Asian Elephant Granting, AZA, SAFE Grants, IEF, etc.), and bring countries together into working groups to compete the guidelines for identified countries. This work will be accomplished by working closely with the Chair and Vice Chair of the AsESG, the program leaders of the SAEP, and IUCN partners.

Table 3. AsESG Core Support and HEC Guidelines Budget - Year one

Sl. No.	Activity	Budget in USD	Justification Details
1	General operations and core support	$5,000	These funds will be used upon request from the AsESG for specific core initiatives presented at the time of the request.
2	Travel of Secretariat of the Chair, IUCN SSC AsESG	$4,000	The travel of the secretariat for the release of the document. This also entails part of the core cost of the AsESG secretariat travel to range countries for AsESG activities.
3	Proofreading & layout of the chapters	$3,000	A total of 200 pages (300-500 words/page) at $0.13 per word proofreading market value; $0.13*80,000 words = $1,040 Design and layout market value $9.75/page; 200 pages = $1,960
4	Printing of the Guideline	$6,000	200 pages (hardbound; 4+4 color); 200 copies = $6,000 in India Copies to be distributed to: - 13 range countries, 5 copies each - 65 copies - Select AsESG members working on HEC- 35 copies - Institutions/libraries/conservation organizations/conservation partners- 50 copies - Release event - 50 copies
5	Distribution of the guideline	$3,000	The guideline will be sent through courier to all elephant range states, AsESG members working on HEC, scientific and government institutions, and libraries. The courier cost from IUCN SSC AsESG office in India to different range countries experts based in 21 countries and partners based worldwide would cost $3000.
6	Interns for Alexandra Zimmermann, Chair IUCN SSC HWCCSG	$5,000	Interns hired to assist in collating, compiling, and writing the guidelines
7	Event to release the Guideline	$5,000	Host an event to promote the guidelines on a widespread platform to garner the attention of various stakeholders that would use the document as a reference for issues related to human-elephant conflict. Associated cost: - Designing and printing of collaterals (Backdrop, standees, invitation, etc.)- $650 - Hall booking for the event – $600 - Audiovisuals- $400 - Honorarium to volunteers for assisting - $500 - Accommodation of Secretariat of the Chair, IUCN SSC AsESG during the book release - $70 - Local travel during book release- $650 - High tea & cocktail during book release- $1500
	Total cost year one	**$31,000**	

Table 4. AsESG Core Support and HEC Guidelines Project Budget – Years two and three

1	General operations and core support	$5,000	These funds will be used upon request from the AsESG for specific core initiatives presented at the time of the request.
2	Follow up with select authors for drafting of case-specific chapters for the 3 countries	$6,000	
3	Travel of Secretariat of the Chair, IUCN SSC AsESG to the 3 countries for meetings	$5,000	Representative from AsESG to travel to each country to present and help establish guidelines to government officials
4	Three consultative workshops to finalize the guidelines	$15,000	Sponsoring of three in-person meetings with representatives from up to 3 countries to understand country specifics for guidelines and relevant edits that are needed to make the HEC guidelines specific for that country
5	Translation of chapters from English version to official languages of the 3 countries	$15,000	Hiring 3 separate organizations from each country to translate material into official language. Based on market value.
6	Compilation of chapters for the guideline	-	
7	Proofreading & layout of the chapters	$9,000	Proofreading at $3,000 per country (see above justification for proofreading cost)
8	Travel of Secretariat of the Chair, IUCN SSC AsESG to the 3 countries for meetings	$5,000	Representative from AsESG to travel to each country to present and help establish guidelines to government officials
9	Printing of the three Guidelines	$4,500	Based on market value in India for printing 200 page publications for 50 copies printed in India for three countries.
	Total cost per year	**$64,500**	

Objective 2: Aid range countries with captive elephant management by supporting the components for the development of an elephant registry system within those countries

It is estimated that 30% (14,142 individuals) of all elephants in Asia are in human-care [1]. By supporting these populations, the SAEP will directly impact the global Asian elephant population and the conservation of the species. Currently, elephant registry programs for elephants in human-care are inconsistent across range states, leading to difficulties in managing and monitoring cross-border movement. Specifically, the number of animals, distribution/demographics, and genetic profiles are incomplete or insufficient to support best management practices and monitoring of these populations. This topic was a priority at the 2006 Range States Meeting, and again in 2017 with the signing of the *Jakarta Declaration for Asian Elephant Conservation* [1], as well as Decision 17.217 of CITES (Table B), and most recently in the 2022 *Kathmandu Declaration for Asian Elephant Conservation* [2]. Using the *Kathmandu Declaration for Asian Elephant Conservation* as the model recovery plan, the SAEP will support range countries in building a government-supported registration database to impact the elephants in human-managed situations directly. Ultimately, this will create opportunities for the SAEP to be involved in critical conversations addressing topics such as breeding, welfare, and management of elephants in human-care. The vision of the SAEP is to assist countries in areas of greatest need and promote a multi-layered approach using physical identification based on photographs, microchipping, and DNA, which collectively will be compiled into a database accessible through a government-supported, user-friendly technology that will ensure each animal is identifiable and verifiable. To gain momentum for this monumental task, the SAEP will engage country-specific organizations such as the AsESG, local NGOs and government officials, researchers, etc., to build on the needs of those populations (i.e., DNA identification and supplying microchipping). This will allow governments and stakeholders to identify, mark, and register the number and demographics of the populations in human-care and allow for future inclusion in a range-wide database through participation of a robust and dependable registry of elephants in human-care.

A strong registry will:

- Ensure that the trade and cross-border movement of live Asian elephants are conducted in accordance with national and international guidelines (i.e., CITES);
- Support law enforcement efforts to ensure the legal trade of Asian elephants;
- Facilitate individual country's governance of their elephant population;
- Support local capacity building through the transfer of technology and skills;
- Support the population management of Asian elephants throughout their range; and
- Potentially be used as a forensics tool to identify illegally trafficked parts and derivatives.

Table 5. Conservation priorities related to the captive registry

***Kathmandu Declaration for Asian Elephant Conservation* (2022) [2]** Collectively develop, where relevant, and coordinate Asian Elephant Registration Programs in relevant countries, based on scientific research including, where appropriate, microchipping and/DNA-based systems, and ensure cross-border movements of captive Asian Elephants are in compliance with all national and international laws and regulations.
***Jakarta Declaration for Asian Elephant Conservation* (2017) [1]** Cooperatively develop captive Asian elephant registration programs including where appropriate microchipping and/or DNA based systems, and ensure cross-border movements of captive Asian elephants are in compliance with all national and international laws and regulations; Ensure the welfare of captive elephants is maintained at all times.
Decision 17.217 of CITES [10] All parties involved in the trade of live Asian elephants are encouraged to: a) Undertake, as necessary, investigations into the illegal trade in live Asian elephants, and endeavor to enforce and, where necessary, improve national laws concerning international trade in specimens of Asian b) **Collaborate in the development and application of a registry system for registering, marking and tracing live Asian Elephants, requesting as necessary assistance from experts, specialized agencies of the Secretariat and;** c) At the request of the Secretariat, provide information on the implementation of this Decision for reporting by the Secretariat to the Standing Committee.

Since 2019, the SAEP has been working with Heidi Riddle (Chair of the AsESG) and Dr. Wadhi Azmi to support the enhancement of Indonesia's captive elephant registry. Despite COVID halting the momentum of this project in 2020, an AZA SAFE Grant was received to support the project and the captive elephant population has been identified. The SAEP will continue this work during this 3-year action plan to have DNA data collected and registered on all captive elephants within Indonesia by the end of 2025.

SAEP leadership will continue to work and partner with the AsESG to identify other countries needing assistance to enhance in-country registration. Conversations with Myanmar and Cambodia have been initiated. The role of the SAEP during this process will be identifying range country needs and available resources, technical support (as requested), and to assist in bringing together countries in working groups to compete the registry for identified countries.

Another component of the pilot registry program is the development of facial recognition technology. This work is being led by Dr. Daniella Chusyd and Dr. David Crandall, through the Indiana University-Bloomington, who are creating a field-friendly phone application to verify individual elephants. Automatic identification of individual elephants may be possible because of recent advances in Artificial Intelligence (AI) and computer vision. Drs. Chusyd and Crandall have already begun developing similar technology with the African Bush elephant (*Loxodonta africana*). This software will use AI algorithms to identify individual elephants in real-time and incorporate the software into a downloadable smartphone application. This app, called "EleID," will

identify the individual elephant and display pertinent demographic data (e.g., age, life history, known health concerns, etc.). Because cell phones are ubiquitous and portable, EleID will have unimpeded access to populations not only in Indonesia, but across Southeast Asia. This portion of the SAFE program will have a valuable tie-in from AZA holding institutions as hundreds-thousands of photos are needed to create the program. Identifying individual elephants is an image-matching problem: given a target elephant photo and a library of other elephant images, the algorithm must identify matches. The challenge is that images of the same elephant will differ (lighting, pose), and the algorithm must cue only those features that do not change and are specific to that elephant. Drs. Chusyd and Crandall will adapt their already established approach for human facial recognition and fine-tune it on elephant data. Therefore, the application will be developed, trained, and evaluated using image data from zoo-housed Asian elephants as elephant identities are known and the settings are controlled, allowing for easier collection of diverse photos for each elephant. The SAEP will continue to engage countries as needed to enhance current registry programs.

Objective 3: Supporting the treatment and management of EEHV and other diseases in Asian elephants within range states

The SAFE Asian Elephant program is committed to supporting the science of diseases that affect both *in-situ* and *ex-situ* elephant populations, including the diagnosis, treatment, and management of elephant endotheliotropic herpesvirus (EEHV). EEHV is a herpes virus that causes deadly hemorrhagic disease in young elephants [14]. It is the largest single cause of death of Asian elephants in North America and Europe. Furthermore, at the 3rd Asian EEHV Strategy meeting in Thailand, 124 cases of EEHV hemorrhagic disease were reported from 11 range states with an 82% fatality rate (2019 EEHV Meeting, Houston). This disease is affecting Asian elephant populations both in range habitats and in human-care and is negatively impacting the global development of a self-sustaining meta-population as a hedge against extinction. The impact of EEHV on the long-term survival of wild populations is still unknown; however, understanding and finding solutions to diseases, such as EEHV, is critical for the overall Asian elephant population.

One strategic goal for the SAEP is to utilize elephant care professionals' (ECP) passion for elephant conservation by encouraging fundraising towards supporting the needs of range states in the treatment and management of EEHV. Through personal experience, the SAEP steering committee understands that elephant care professionals at all levels want a direct, tangible, and measurable impact on conservation. The SAEP will create tools and provide guidance to ECPs on simple yet effective ways to host local fundraising events that will create opportunities for direct conservation impact on Asian elephants in range states in relation to EEHV.

As funds accumulate, the SAEP will collaborate with strategic partners (i.e., EEHV Advisory Group (EEHV AG), IEF, and AES) to determine the most imperative needs for funding dispersal. The focus of funding will be to: provide resources to increase awareness of the epidemiology, diagnosis, and treatment of EEHV in regions with significant calf birth rates; provide resources for capacity building of elephant training and medical treatment; and provide funding for medical supplies, testing, and treatment facilities for the management of elephant disease.

Objective 4: Globally enhance and grow knowledge of the conservation for Asian elephants through communication strategies, including the August Asian elephant awareness campaign

The SAEP will expand the messaging and reach of the August educational campaign focused on Asian elephant conservation to audiences outside North America. At present, this campaign focuses on two primary audiences (AZA institutions' visitors and social media audiences), with the aim to raise attention and awareness of the issues facing Asian elephants.

For each August campaign, the SAEP will create a toolkit for all program partners and other organizations wishing to participate in the social media campaign. This toolkit contains digital materials that organizations can use, or adapt for use, through their social media channels. As part of this, the SAEP provides messages to guide each week of the campaign. Each week of the campaign is guided by a theme. While optional, these themes are designed to build on each other. For example, the 2022 themes were:

- Week 1 - Why are Asian elephants important?
- Week 2 - Why we are protecting Asian elephants
- Week 3 - How we are making a difference for Asian elephants
- Week 4 - What you (members of the public) can do
- Week 5 - Thank you for supporting Asian elephant conservation

Other items included in the toolkit are – memes, elephant photos, profile picture frames, and logos.
As the team moves to the future, they have expanded this campaign to include audiences outside North America, specifically those in Asian elephant range countries. In 2022, the team began this process by reaching out to conservation organizations based in Asia. The International Elephant Foundation was important as they initially connected us to many of their partners. Because the messages provided in the toolkit were specific to North America, each international partner provided their own messaging so that it would resonate with their audiences.
In 2024-2026, the SAEP plans to:

- Continue to invite more international conservation organizations to participate.
- Listen to these partners and explore ways that we can support them in creating messages that are relevant to those living in Asian elephant range countries.

A second action of this objective will be to incorporate messaging related to Asian elephant conservation in AZA-accredited organizations. This will be accomplished through:

- Developing a system of communication within the zoos that hold Asian elephants to gather and track stories about projects and successes related to Asian elephant conservation, both in-situ and ex-situ;
- Incorporating these stories in the August campaign toolkit to be shared during the campaign;
- Sharing these stories on the Asian Elephant SAFE Instagram and Facebook page;

- Disseminating messages to Asian elephant-holding zoos;
- Working with zoos to evaluate success; and
- Reporting and celebrating success.

Throughout the first three years of this program, the SAEP Public Engagement team has realized that they need to educate the public not only about the plight of Asian elephants but also that AZA-accredited organizations have supported the conservation of elephants for many decades. The public needs to know these stories to strengthen their trust in these zoos and SAEP. As SAEP explores ways to garner funding for Asian elephant conservation, this trust is critical.

Lastly, SAEP will expand the SAEP Public Engagement team to involve more social media experts. The team comprises a competent group of educators and public relations experts. As they continue to expand the August campaign, the team has identified the need for at least two additional members who focus on refining our social media strategy, including identifying new or improved tactics and metrics. A continued presence on social media and other communications tools regarding AZA elephants, conservation partners, and elephant news will be part of this action plan to include regular messaging on relevant social media and other platforms.

SAFE Asian Elephant 3-Year Strategy Working Plan 2024-2026

Table 6. Strategic Objective 1

Strategic objective 1: Provide financial support to the IUCN's Asian Elephant Specialist Group for outreach and addressing Human Elephant Conflict *Rationale: Conservation and management of Asian Elephants is in alignment with in-country & local government priorities.*					
Action	**Metrics**	**Timeframe**	**AZA Zoos**	**Field Partners**	**Budget**
1.1 Promote relationship building and AZA participation at the range country level by supporting and funding the Asian Elephant Specialist Group's Core initiatives	Annual reports provided to SAFE partners demonstrating the utilization of funds.	2024-2026	Columbus Zoo, Dickerson Park Zoo, Phoenix Zoo, Rosamond Gifford Zoo, ABQ BioPark, Honolulu Zoo, Tulsa Zoo		$15,000 ($5,000 per year)
1.2 Development, production, and distribution of HEC guidelines in English language	HEC guidelines produced and distributed in English language to range countries and SAEP partners	2024	SAEP partners	AsESG, IUCN, other program partners	$26,000
1.3 Adaptation, translation, production, and distribution of HEC guidelines to range countries	HEC guideline is translated and adapted to official country languages and distributed to range countries and SAEP partners	2025-2026	SAEP partners	AsESG, IUCN, other program partners	$64,500

Table 7. Strategic Objective 2

Strategic objective 2: Aiding range countries with elephants in human-care, by supporting the components for the development of the registry systems within those countries: Rationale: *Captive populations make up 30% of total population in range countries and this population is important for all countries.*					
Action	**Metrics**	**Timeframe**	**AZA Zoos**	**Field Partners**	**Budget**
2.1 Engage and partner with governments and/or NGOs to enhance existing elephant registry programs to support DNA identification and microchipping of all captive elephants:	Reports and communications to AZA partners	2024-2026	Columbus Zoo		
2.2 Continue work with Indonesia partners to enhance the captive registry	Completion of DNA collection and identification for captive elephant population	2024-2025	Columbus Zoo	Vesswick, Wahdi Azmi, Heidi Riddle	$23,500 (received)
2.3 Promote elephant recognition technology to support the captive registries **2.3.1 Build technology with AZA elephant holders** **2.3.2 Expand technology inviting stakeholders in range countries**	Annual report of progress and completion of program. In development, but will engage AZA institutions to build the technology using elephants in North America	2024-2026	Columbus Zoo	University of Indian Bloomington, Colossal Bioscience	$10,000 (received)

Table 8. Strategic Objective 3

Strategic objective 3: Supporting the treatment and management of EEHV and other diseases in Asian elephants within range states: Rationale: AZA *Zoos have the expertise and ability to assist range countries with emerging diseases.*					
Action	**Metrics**	**Timeframe**	**AZA Zoos**	**Field Partners**	**Budget**
3.1 Engage ECPs and other field partners to host fundraisers for SAEP Objective 3 3.1.1 Fundraising packet distributed to all elephant holding facilities; Event planning support offered 3.1.2 Steering committee members reach out to 2-3 organizations to solicit participation 3.1.3 ECP-hosted events will be tracked and celebrated on social media	1. Fundraiser events are tracked and reported via AESP social media and SAFE annual reports 2. $3,000 raised from ECP-driven events by 2026	2024-2026	OKC, TBD	EMA	$3,000
3.2 Engage program partners to support SAEP Objective 3 3.2.1 Produce request letter template and distribute to program partners annually	1. Program partner support is reported on SAFE annual reports 2. $10,000 raised by program partner donation by 2026	2024-2026	All partners		$10,000
3.3 Provide resources to increase awareness of the epidemiology, diagnosis, and treatment of EEHV in range country regions with significant calf birth rates 3.3.1 Support and participate in international workshops, meetings, and outreach. 3.3.2 Develop infographics and social media content to be shared globally	1. Participation in international meetings/workshops will be shared on SAFE media platforms and reported via SAFE annual reports 2. Support funds will be reported on SAFE annual reports 3. A minimum of one EEHV-specific outreach strategy/material will be created and distributed each year	2024-2026	AZA Partner Institutions	Non-AZA Partners, AES	$4,000

3.4 Upon request, provide resources for capacity building of elephant training and medical treatment	1. AZA professionals' expertise is utilized to support calf training and medical treatment. This action will only be completed upon request of a field partner or range state organization.	2024-2026	OKC, Columbus	AES, IEF, EEHV AG	N/A
3.5 Provide financial support for medical supplies, testing, and treatment facilities for the management of elephant disease 3.5.1 Collaborate with field partners (IEF, EEHV AG, AES) to determine areas of greatest need. Priority will be placed on projects that support the foundation and feasibility of expert medical care. 3.5.2 Distribute funds to projects on an as-needed basis	1. Funds are used for projects that provide the foundation of expert medical care; Funds used will be reported via SAFE annual reports	2024-2026	OKC	AES, IEF, EEHV AG	$10,000

Table 9. Strategic Objective 4

Strategic objective 4: Globally enhance and grow knowledge of the conservation for Asian Elephants through communication strategies, including the August Asian elephant awareness campaign *Rationale: Public engagement helps raise awareness of the issues Asian elephants face and the importance of protecting them.*					
Action	**Metrics**	**Timeframe**	**AZA Zoos**	**Field Partners**	**Budget**
4.1 Expand the messaging and reach of the August educational campaign focused on Asian elephant conservation to audiences outside of North America **4.1.1 Increase reach of the North American Campaign** **4.1.2 Invite and involve more conservation partners from Asian elephant range countries**	1. Increase the reach of the North American campaign to over 2 million. 2. Increase number of participating organizations from outside North America by 10%. 3.Determine the reach of the non-AZA partners and increase that reach by 10%	2024-2026	All partners	Non-AZA Partners, IEF	N/A
4.2 Incorporate messaging related to Asian elephant conservation taking place in AZA-accredited organizations.	1.Identify key partners within Asian elephant-holding zoos who are working on their conservation and identify the non-AZA partners with whom they work. 3. Create a communication channel where the stories of their work are tracked and recorded. 4. Develop a system where these stories are regularly shared during the August campaign.	2024-2026	All partners	Non-AZA Partners, IEF	N/A
4.3 Expand the AESP Public Engagement team to involve more social media experts.	1. Recruit and add at least two more social media experts to join the Public Engagement team.	2024	All partners		N/A

References:

[1] Asian Elephant Range State Government Representatives. (2017, April 20). The Jakarta Declaration for Asian Elephant Conservation. International Elephant Foundation. https://elephantconservation.org/initiatives/meetings/jakarta-declaration-for-asian-elephant-conservation-jakarta-indonesia-april-20-2017/

[2] Asian Elephant Range State Government Representatives. (2023, April 29). *Kathmandu Declaration for Asian Elephant Conservation*. US Fish and Wildlife Service. https://www.fws.gov/sites/default/files/documents/Kathmandu-Declaration-for-Asian-Elephant-Conservation.pdf

[3] Choudhury, A., et al., IUCN SSC Asian Elephant Specialist Group (2008). Elephas maximus. The IUCN Red List of Threatened Species, 2008.

[4] CITES. (n.d.) *The CITES Appendices*. https://www.cites.org/eng/app/index.php.

[5] World Wildlife Foundation. (n.d.) *Asian elephant*. https://www.worldwildlife.org/species/asian-elephant

[6] IUCN Red List. (2019, September). *Asian elephant*. https://www.iucnredlist.org/species/7140/45818198

[7] AZA Elephant TAG/SSP. (2023). *Population Analysis & Breeding and Transfer Plan, Asian Elephant (Elephas maximus)*. AZA Species Survival Plan Program.

[8] International Elephant Foundation. (n.d.) *Asian Elephants*. https://elephantconservation.org/about-elephants/

[9] World Maps. *Population of Asia Countries*. https://www.pinterest.com/worldmaps59/

[10] CITES. (2016, July) *Illegal Trade in Live Asian Elephants: a review of current legislative, regulatory, enforcement, and other measures across range States.* https://cites.org/sites/default/files/eng/cop/17/WorkingDocs/E-CoP17-57-01-A5.pdf

[11] Asian Elephant Specialist Group. (n.d). *Our mandate*. https://www.asesg.org/

[12] Asian Elephant Specialist Group. (n.d.). *The IUCN SSC Asian Elephant Specialist Group*. https://www.asesg.org/images/AsESG%20Brochure.pdf

[13] IUCN. *IUCN SSC guidelines on human-wildlife conflict and coexistence*. (1st ed.). https://portals.iucn.org/library/sites/library/files/documents/2023-009-En.pdf

[14] EEHV Advisory Group. *EEHV Background Information*. https://eehvinfo.org/eehv-information/

[15] IUCN-SSC Asian Elephant Specialist Group. *Asian Elephant Range States Meeting*. April 2022. Kathmandu, Nepal.

[16] Association of Zoos and Aquariums. 2021. ARCS Report.