

**U.S. Fish and Wildlife Service
Division of International Conservation
Asian Elephant Conservation Program
FY 2018 Summary of Projects**

In FY 2018, the U.S. Fish and Wildlife Service (USFWS) awarded \$1,804,897 to projects through the Asian Elephant Conservation Fund, which leveraged \$2,977,379 in additional matching funds. In total, Congress appropriated \$1,557,000 to the Asian Elephant Conservation Fund, and additional funds were provided by other sources, as identified below. These funds supported 30 projects in nine countries (in alphabetical order below).

New grants

CAMBODIA

ASE1824

Award # F18AP00368

Reducing threats to Asian elephants and mitigating human-elephant conflict in the core habitat of the Cardamom Mountain Landscape, Cambodia. In partnership with Fauna and Flora International. The goal of this project is to reduce threats to wild Asian elephants, achieve population recovery in the Cardamom Mountain Landscape of Cambodia, and support communities in mitigating human-elephant conflict (HEC). Specific project objectives are to: (a) prevent potentially fatal snare injuries to elephants by reducing the commercial demand for bushmeat in urban areas through a research-led behavior change campaign, and contribute to a reduction in incentives to set snares in elephant habitat; (b) support community wardens to monitor elephants, threats, and HEC; and (c) reduce HEC through sustainable mitigation techniques and local management of HEC at key sites. Activities include: (1) supporting an effective nationwide demand reduction campaign targeting bushmeat consumption; (2) supporting community elephant wardens to use camera traps and SMART (Spatial Monitoring and Reporting Tool) patrols to monitor elephant presence, threats, and HEC; (3) educating and training local stakeholders in HEC mitigation; (4) establishing new government-led HEC response teams; (5) reducing HEC in impacted communities by developing and testing mitigation techniques; and (6) building community support for conservation activities through support to targeted primary schools. This project will contribute to the stabilization and long-term increase of the Asian elephant population in Cambodia.

USFWS: \$70,200¹

Leveraged Funds: \$109,228

ASE1854

Award # F18AP00381

Direct protection to Asia's last intact elephant corridor, Cambodia. In partnership with the Wildlife Alliance. The Southern Cardamom Forest Protection Program (SCFPP) implements a direct, holistic approach to forest protection in Cambodia, providing ranger patrols to protect wild Asian elephants and their habitats from poaching and land encroachment in this landscape. The goal of this ongoing project is to achieve zero elephant poaching events, prevent forest

¹ Funded by U.S. Agency for International Development – Combating Wildlife Trafficking (USAID-CWT) funds.

fragmentation, and preserve continuous forest cover for elephant movement. This project will protect Asian elephants by: (1) improving ranger effectiveness through training; (2) strengthening good governance by building strong cases and following up with the courts on active cases; (3) providing investigative skill development training; and (4) creating better linkages between remote villages and ranger stations to address land encroachment. SCFPP rangers will conduct daily forest patrols to effectively resolve human-elephant conflict, operate ranger stations, and preserve the forests of the Southern Cardamom Mountains of Cambodia. USFWS: \$100,000² Leveraged Funds: \$388,980

ASE1861

Award # F18AP00382

Elephant conservation in Keo Seima Wildlife Sanctuary, Cambodia: Phase 10, Years 1-3. In partnership with the Wildlife Conservation Society. The goal of this three-year project is the ongoing protection and enhancement of the conservation status of wild Asian elephants in Keo Seima Wildlife Sanctuary (KSWS), Cambodia. KSWS is a globally important site for biodiversity conservation located in the Eastern Plains Landscape of Cambodia. This area boasts a complex mix of forest types as well as elevation gradients, which leads to a high species richness across a range of taxa. The main objectives of this project are to improve anti-snare patrol capacity through applied research and a collection incentive scheme; protect elephants and habitat through targeted law enforcement and anti-snare patrols; and protect elephants and their habitat from illegal forest encroachment. Project activities include: (1) conducting anti-snare patrols to reduce snare abundance in key elephant areas; (2) collecting snare abundance data to improve the efficiency of anti-snare patrols; (3) evaluating the effectiveness of pilot snare collection incentives; (4) using remote sensing to target law enforcement patrols within key areas for elephants; and (5) conducting law enforcement patrols in high-priority elephant areas at the deforestation frontier.

USFWS: \$71,540³ Leveraged Funds: \$220,921

INDIA

ASE1812

Award # F18AP00363

Enhancing Asian elephant conservation in the Transboundary Manas Conservation Area: An Indo-Bhutan initiative. In partnership with Aaranyak. The Transboundary Manas Conservation Area forms a priority landscape with an area of over 3,000 square kilometers. It is one of three transboundary landscapes across the Eastern Himalayas that connect Bhutan and northeast India. The landscape faces growing threats linked to increased human populations and illegal activities, including along the porous border between Bhutan and India, which facilitates the poaching and trafficking of elephants. Project activities include: (1) identifying transboundary elephant migration routes and patterns; (2) based on elephant landscape usage, identifying priority locations for new anti-poaching camps for forest department staff; (3) conducting five joint training programs on elephant population estimates, for forest department staff of both India and Bhutan; (4) conducting joint surveys on elephant presence/absence across the entire landscape; (5) conducting vegetation transect surveys; (6) organizing two workshops with involvement of

² Funded by U.S. Agency for International Development – Combating Wildlife Trafficking (USAID-CWT) funds.

³ Funded by U.S. Agency for International Development – Combating Wildlife Trafficking (USAID-CWT) funds.

stakeholders and local villagers to develop anti-poaching strategies; and (7) using geographic information system (GIS) data to create a landscape corridor and elephant movement map. This project will enhance transboundary collaboration on elephant conservation and population monitoring between Indian and Bhutanese authorities in the Transboundary Manas Conservation Area of Bhutan and India.

USFWS: \$52,050

Leveraged Funds: \$10,200

ASE1814

Award # F18AP00364

An action-based conservation approach to prevent electrocution of Asian elephants in Assam, India. In partnership with Aaranyak. The state of Assam, in northeast India, is home to over 6,000 wild Asian elephants, which are threatened by poaching, habitat loss, human-elephant conflict, and electrocution - both accidental and intentional. This project will focus on assessing the mortality of wild Asian elephants by electrocution in Assam over the last year, and on determining the circumstances and location of each electrocution. Locations where elephants come into contact with high-voltage power lines in Assam will be mapped and a workshop with the Assam Power Distribution Company Limited, the government power board, will be organized to prepare a standard operating procedure. Actions will be recommended for target areas, including the insulation of power lines in areas where elephants may come into contact with live wires, and the elevation of low-hanging wires in areas where elephants migrate, to prevent elephant fatalities by electrocution. An action plan will be prepared with the government to prevent electrocution deaths. This project will significantly contribute to the ongoing conservation efforts for Asian elephants in Assam by reducing the chances of accidental and intentional electrocution.

USFWS: \$49,150

Leveraged Funds: \$11,810

ASE1828

Award # F18AP00370

Prioritizing conservation landscapes for the Asian elephant in Assam, Northeast India. In partnership with the Wildlife Conservation Society - India. This project will work to ensure that the northeastern state of Assam, India retains threat-free interconnected populations of wild Asian elephants. This project will work in collaboration with the Assam Forest Department to obtain a comprehensive status assessment of the elephants in multiple conservation landscapes in Assam and use this information to collaboratively draft an implementable action plan for the species. Objectives include to: (1) assess elephant distribution and habitat across Assam; (2) map the distribution of threats; and (3) prioritize conservation action and areas for wild elephants. Specific project activities include: (1) developing a reliable and feasible protocol for a comprehensive status assessment of elephants; (2) mapping extant habitat and critical corridors for the species across Assam; (3) conducting an elephant distribution and threats survey; (4) identifying areas of human–elephant conflict and non-natural mortality; (5) conducting stakeholder workshops for capacity building, dissemination of knowledge, and formulation of action plans; and (6) drafting a State-wide landscape-scale conservation action plan for elephants in collaboration with the State Government and other stakeholders. This will be the first statewide conservation status assessment for elephants in Assam, and will lead to the development of a protocol for such assessments that is replicable across the species' range.

USFWS: \$57,525

Leveraged Funds: \$62,100

ASE1829

Award # F18AP00371

Securing Asian elephant habitats and populations in Kerala, South India through a government-endorsed, comprehensive, landscape-scale conservation plan. In partnership with the Wildlife Conservation Society - India. This project will work collaboratively with the Kerala Forests and Wildlife Department to ensure that the southern state of Kerala, India retains threat-free interconnected populations of wild Asian elephants. The objective of this project is a comprehensive status assessment of wild elephants in multiple conservation landscapes in Kerala, and using this information to prioritize conservation efforts for the species. Specific objectives include: (a) assessing the distribution of the Asian elephant and its habitat across Kerala; (b) conducting a threats assessment; and (c) drafting an action plan for elephants in Kerala. Project activities include: (1) mapping extant habitat using remote sensing imagery; (2) conducting scientific surveys of elephant presence; (3) modeling habitat connectivity for the species across Kerala; (4) identifying conflict hotspots and zones of increased non-natural mortality; and (5) in consultation with the Government of Kerala, drafting a statewide landscape-scale conservation action plan for elephants. This project will lead to the effective and tangible conservation of Asian elephants in Kerala, a globally important region for this species.

USFWS: \$57,850

Leveraged Funds: \$61,400

ASE1842

Award # F18AP00376

My elephant in my village: Empowering local communities with site-specific strategies to mitigate human-elephant conflict in the Eastern Ghats of India. In partnership with the Foundation for Ecological Research, Advocacy and Learning. The primary goal of this two-year project is to conserve Asian elephants in a human-dominated landscape by adopting village-level land use, and agricultural and lifestyle practices that are also compatible with elephant use of the landscape. Project objectives include: (1) forming and training village teams to manage human-elephant conflict (HEC); (2) training and implementing site-specific farm-based practices to reduce HEC; (3) establishing and maintaining physical structures to reduce HEC; (4) deploying technology to equip villagers with an early-warning system; and (5) developing a framework for site-specific implementation of mitigation action plans at the village level. Project activities include: (1) identifying and training villagers who will form village protection squads, with specific duties and pay; (2) identifying and implementing agricultural and livestock management practices, in consultation with village agriculture extension officers, to reduce HEC while taking into consideration the behavior of elephants; (3) construction and maintenance of watch towers and procurement of equipment for anti-crop depredation activities and crop-guarding; (4) deployment of an elephant early-warning system; and (5) preparation and distribution of an illustrated handbook for each village covering the crop life cycle and livestock management practices unique to each village.

USFWS: \$53,626

Leveraged Funds: \$42,780

INDONESIA

ASE1748

Award # F18AP00012

Protecting elephants, forests, wildlife, and communities through support of the Sumatran Elephant Conservation Response Units (CRU) of Bengkulu Province, Western Sumatra, Indonesia. In partnership with the International Elephant Foundation. This project works in collaboration with Indonesian authorities and local communities to protect and conserve the critically endangered Sumatran elephant and its habitat through the operation of the Seblat Elephant Conservation Center's Conservation Response Units (CRUs) located in Bengkulu Province, western Sumatra, Indonesia. Project activities include: (1) operation of CRUs conducting patrols during seven to ten consecutive days per month; (2) preventing and preempting incidents of human-elephant conflict (HEC) and increasing the capacity of local communities to manage HEC; (3) further training mahouts and rangers through an annual mahout workshop, staff exchanges, and elephant conservation trainings; (4) sharing information with conservation stakeholders internationally; (5) raising community awareness of wildlife and habitat conservation by engaging captive CRU elephants in outreach activities; and (6) working with government officials to encourage development of HEC mitigation and land-use strategies to prevent habitat encroachment. By integrating captive elephants in the conservation efforts of wild elephants through HEC mitigation activities, patrols, and community outreach, the CRUs will encourage coexistence between wild elephants and surrounding communities in Sumatra, Indonesia.

USFWS: \$28,800⁴

Leveraged Funds: \$58,850

ASE1804

Award # F18AP00359

Protecting Sumatran elephant populations and habitat through Elephant Response Units in collaboration with local communities in Way Kambas National Park, Sumatra, Indonesia. In partnership with the Community for Sumatra Nature Conservation. The goal of this three-year project is to effectively monitor, mitigate, and reduce human-elephant conflict (HEC) and its damaging impact on local communities surrounding Way Kambas National Park, Sumatra, Indonesia through the use of Elephant Response Units (ERUs). ERUs employ elephants and their skilled handlers along with trained local community members to conduct regular forest patrols to monitor and prevent illegal activities, monitor wild Asian elephant herds, and mitigate conflict between elephants and local communities. Project activities include: (1) ERU habitat patrols and elephant monitoring; (2) immediate response by ERUs to HEC events; (3) construction, staffing, and equipping a new ERU base camp and training new ERU team members; (4) deployment of GPS collars on wild elephants; (5) developing HEC mitigation skills in 20 communities; (6) assisting communities with nighttime crop guarding through construction of observation towers and organization of community crop guarding teams; and (7) providing regular health checks and medical care to ensure the welfare of elephants employed by the ERUs. This project will contribute to the conservation of critically endangered Sumatran elephants and their habitat.

USFWS: \$56,812

Leveraged Funds: \$282,957

⁴ Funded by proceeds from sales of the Save Vanishing Species stamp.

ASE1808

Award # F18AP00360

Supporting and improving the education of future Indonesian conservationists and decision-makers graduating from the forestry faculty at Gadjah Mada University, focusing on elephant conservation. In partnership with the Australian Orangutan Project. Indonesia is home to two subspecies of wild elephants, Sumatran and Bornean, with both populations critically endangered and believed to range below 1,000 breeding animals. The goal of this project is to save Indonesia's elephants from extinction by increasing the capacity of Indonesian professionals, protected area managers, and decision-makers to independently implement successful and sustainable conservation and monitoring programs. This project will support one of Indonesia's most respected universities, the Gadjah Mada University, in: (1) establishing a wildlife conservation center within the Faculty of Forestry, including renovating and equipping the training facilities; and (2) creating a training program to increase the capacity of forestry students and faculty to implement wildlife monitoring and conservation projects, including courses covering project design, scientific methods, ecological concepts, and fundraising. 250 students will be included in the training program, with six courses offered for undergraduate and five for graduate students. Workshops on applied field skills and internships with elephant conservation projects in Central Sumatra will be offered to directly link conservation theory to practical application. The success and sustainability of elephant conservation is directly linked to the will and capacity of Indonesia and the Indonesian people to conserve their wildlife species and wildlands.

USFWS: \$30,021

Leveraged Funds: \$0

ASE1809

Award # F18AP00362

Continuing the development of elephant and wildlife veterinary teaching, training, and research capacities, and operating a wildlife ambulance at Syiah Kuala University, Banda Aceh, Sumatra, Indonesia. In partnership with the Australian Orangutan Project. The primary goal of this project is to continue to develop regular, high-quality elephant and wildlife veterinary teaching and training at Syiah Kuala University, in order to provide qualified veterinary services for all wildlife conservation programs in Banda Aceh, Sumatra, Indonesia. The main objectives of this project are to support teaching elephant medicine through regular lectures, seminars, and field work, and by operating the elephant ambulance to meet veterinary needs for both wild and captive elephants used in conservation programs. Specific project activities include: (1) lectures, courses, and seminars for wildlife veterinarians and students; (2) operation of a wildlife ambulance for emergency response to treat and rescue wild elephants; (3) on-call service for conducting post mortems upon request; (4) provision of backup veterinary services for elephant translocation, fitting GPS collars, and research; (5) regular visits and on-call emergency services to elephant patrol units and elephant camps; and (6) development of elephant research programs with veterinary faculty. Qualified veterinary expertise is crucial to the success of elephant conservation activities throughout Sumatra, and is required for emergency response for injured wild elephants, human-elephant conflict situations, and for regular routine care of captive elephants employed in conservation patrol units in Sumatra, Indonesia.

USFWS: \$56,850

Leveraged Funds: \$507,160

ASE1862

Award # F18AP00383

Saving the critically endangered Sumatran elephant in Way Kambas National Park, Sumatra, Indonesia, by preventing human-elephant conflict and poaching. In partnership with the Wildlife Conservation Society. The goal of this project is to support ongoing work to assist Indonesian authorities in maintaining Way Kambas National Park (WKNP) as a secure habitat for critically endangered Sumatran elephants and to assist communities outside of WKNP to peacefully coexist with wild elephants. Objectives will focus on supporting existing management efforts through patrols, and law enforcement efforts through fully integrating SMART (Spatial Monitoring and Reporting Tool) patrol methodology into WKNP management to reduce forest encroachment, investigate and prosecute wildlife traffickers, and reduce human-elephant conflict (HEC) around the park's forest edge. Specific activities include: (1) holding advanced training for SMART patrol teams and data technicians; (2) conducting forest patrols and monthly SMART strategy evaluation and adaptive patrol management; (3) managing a local informant network; (4) conducting investigations to identify poaching syndicates and traders, bring cases to Indonesian law enforcement authorities, and assist law enforcement operations; (5) providing legal assistance to law enforcement agencies; (6) supporting district government in HEC mitigation; and (7) conducting community-based patrols and rapid responses to HEC events. USFWS: \$53,088⁵ Leveraged Funds: \$53,456

MALAYSIA

ASE1843

Award # F18AP00377

Living with elephants - establishing a better landscape for human-elephant coexistence in monoculture habitats in Malaysian Borneo. In partnership with HUTAN - Kinabatangan Orang-utan Conservation Project. The goal of this project is to ensure the long-term survival of wild Asian elephants in Kinabatangan, Malaysian Borneo by reducing human-elephant conflict and establishing "elephant-friendly" landscapes in the oil palm estates of Lower Kinabatangan. Project objectives are to: (a) enhance scientific knowledge of elephant ecology and movement within oil palm landscapes; (b) develop and implement standard operating procedures (SOPs) for the palm oil industry on coexistence with elephants; (c) build the capacity of young scientists and conservationists in Sabah in elephant ecology and conservation; and (5) revise the State Elephant Action Plan and related policy documents. Project activities include: (1) assessing elephant feeding ecology and movement within oil palm landscapes to ascertain what resources are needed to support elephants outside of protected areas; (2) modeling elephant movement to identify the potential functional connectivity within the landscape; (3) engaging and enhancing communication with palm oil companies to develop standard operating procedures and strategies to manage elephants in oil palm landscapes; and (4) developing the new State Elephant Action Plan. To make monoculture landscapes more elephant-friendly, scientific understanding of elephant ecology and behavior in these new man-made habitats is necessary, and this project will contribute to this important effort. USFWS: \$39,329 Leveraged Funds: \$131,000

⁵ Of this, \$20,243 was funded by proceeds from sales of the Save Vanishing Species stamp and \$8,260 by U.S. Agency for International Development – Combating Wildlife Trafficking (USAID-CWT) funds.

NEPAL

ASE1826

Award # F18AP00369

Strengthening human-elephant co-existence in the Eastern Terai of Nepal. In partnership with the National Trust for Nature Conservation, Nepal. This project was developed in close collaboration with local communities and District Forest Officials in Jhapa, Nepal, the easternmost district in the Terai landscape, in order to strengthen elephant conservation efforts. Project activities include: (1) supporting local communities in the management and maintenance of electric fences to prevent elephants from entering villages; (2) forming, training, and equipping community-based Elephant Response Teams and strengthening their capacity to manage human-elephant conflict (HEC); (3) creating a database for long-term tracking of HEC data; and (4) conducting community awareness workshops to encourage behavior change towards elephants. These interventions are expected to reduce community resentment towards elephants and lead to behavior change that reduces both human and elephant fatalities from HEC in this priority landscape of eastern Nepal.

USFWS: \$63,975

Leveraged Funds: \$42,550

ASE1835

Award # F18AP00372

Developing elephant conservation action plan and strengthening elephant conservation initiatives focused to Khata and Karnali forest corridors of Bardia, Nepal. In partnership with Bright Nepal. The transboundary Khata and Karnali forest corridors in the western Terai landscape of Nepal connect the important protected areas of Bardia National Park, Nepal to Katarniaghat Wildlife Sanctuary, India, and are home to wild Asian elephants, rhinos, and tigers. This project will work to to strengthen human-elephant coexistence (HECx) in this landscape and promote science-based management of wild elephants through the revision of the Nepal Elephant Conservation Action Plan (NECAP). Project objectives are to: (a) revise the NECAP, which expires in 2018 and develop a new plan for the next 10 years; and (b) strengthen cooperative Asian elephant conservation activities between Nepal and India focused on the Khata and Karnali forest corridors. Specific project activities include: (1) organizing one national and three regional workshops for consultations and preparation of the NECAP; (2) drafting a revised NECAP and requesting formal government approval; (3) organizing four cross-border events for community conservation leaders in Nepal and India; (4) holding a local and a national media workshop to convey HECx messages to a broad audience; (5) strengthening the capacity of 50 rapid response team members and provision of field gear and equipment; and (6) organizing six workshops for newly elected local government officials.

USFWS: \$67,575

Leveraged Funds: \$36,125

SRI LANKA

ASE1817

Award # F18AP00365

Facilitating human-elephant coexistence around a critical corridor in Sri Lanka. In partnership with Elephant Forest & Environment Conservation Trust. The long-term goal of this project is for wild Asian elephants to continue using habitats outside of protected areas in Sri Lanka by working with wildlife authorities and local communities to enhance safety for both

people and elephants. This project focuses on a critical corridor connecting Uda Walawe National Park to a larger forest complex threatened by development activities. The project will use camera traps to understand both human and elephant use and activities outside protected areas and as a tool for community engagement. Project activities include: (1) expansion of camera trap coverage over the entire stretch between Uda Walawe and Lunugamwehera National Parks; (2) recruitment of four scouts from each of eight villages to maintain camera traps, build trust, and facilitate community engagement; (3) relating elephant behavioral data from outside to inside protected areas, analyzing, and then sharing data with local communities; (4) implementing locally appropriate, decentralized, self-organizing elephant early-warning systems in focal villages; and (5) conducting an educational needs assessment and providing educational resources to schools eight villages. The long-term vision is to facilitate the fence-free coexistence of humans and elephants in Sri Lanka.

USFWS: \$69,190

Leveraged Funds: \$5,940

ASE1822

Award # F18AP00366

Facilitating human-elephant co-existence in Sri Lanka. In partnership with the Centre for Conservation and Research. This project will inform stakeholders impacted by and tasked with managing human-elephant conflict (HEC) in Sri Lanka (e.g., communities and development, regulatory, and conservation authorities) about factors impacting effective management and implementation of a human-elephant coexistence (HECx) model in Sri Lanka. Factors include: (a) the failure of past HEC mitigation and elephant conservation strategies – including limiting elephants to protected areas, elephant translocations, elephant drives, electric fences on protected area boundaries; (b) the scale and extent of HEC, too few conservation officers, and the need for a range of stakeholders playing an active role in HEC mitigation; (c) future directions of effective HEC mitigation and elephant conservation, such as managing elephants in and outside PAs, community-based village and paddy field electric fences, changes in human behavior; and (d) roles and responsibilities of stakeholders in mitigating HEC. Project activities include: (1) a minimum of 150 awareness workshops tailored to target groups; (2) at least 24 meetings with government officials and political authorities; and (3) six or more newspaper articles published in national outlets. The long-term goal of this project is to compel relevant stakeholders to phase out inappropriate HEC management activities, implement an appropriate HECx model, and undertake responsible development in Sri Lanka.

USFWS: \$22,462

Leveraged Funds: \$13,834

ASE1846

Award # F18AP00378

H.EL.P. - Human Elephant Peace - Sri Lanka. In partnership with Compass Films. The goal of this project is to research and produce a multimedia public awareness campaign in three local languages for Sri Lanka, home to over 5,000 wild Asian elephants who are threatened by increasing levels of encroachment on their habitat by farmers, agricultural companies, and developers, and by the associated human-elephant conflict (HEC). This project will communicate information from local and international elephant experts with these vulnerable villagers through a highly efficient educational campaign. The campaign will include awareness videos broadcast on national TV and social media and also directly to the target population with educational teams deploying to conflict areas to conduct awareness presentations, film

projections, interactive discussions, and distribution of free educational kits. Specific project activities include: (1) produce 24 60-second educational TV spots to international broadcast standards in English, Sinhala, and Tamil languages; (2) produce 12 three-minute educational segments for community events; (3) produce a compilation of all segments for a 30-minute educational program; and (4) produce and distribute an educational kit in local languages with an educational booklet, DVD copy of the film, memory game for children and adults, and a poster. This is the first broad-scale elephant conservation public media campaign undertaken in this range state.

USFWS: \$49,750

Leveraged Funds: \$105,250

THAILAND

ASE1836

Award # F18AP00373

Coordinating civil society responses to increasing human-elephant conflict issues in Thailand.

In partnership with Freeland. The Dong Phrayayen-Khao Yai landscape (DPKY) supports one of the largest contiguous and growing elephant populations in Thailand. However, it remains threatened by encroachment, poaching, and human-elephant conflict (HEC). The goal of this project is to strengthen protection for elephants in DPKY and transfer and replicate effective HEC solutions to HEC hotspots in southeast Thailand. Project objectives include to: (a) empower a civil society network to share grassroots HEC solutions; (b) advance enforcement and training capacity for the Department of National Parks, Wildlife and Plant Conservation; and (c) improve wildlife monitoring capacity in partnership with stakeholders. Specific project activities include: (1) strengthening civil society capacity to monitor, mitigate, and report HEC; (2) conducting research and implementing innovative HEC mitigation techniques, transferring these skills to select sites in southeast Thailand, and convening civil society workshops in order to network and enhance awareness and responsiveness; (3) supporting on-the-job-training and mentoring capacity for Rapid Response Units; (4) supporting Spatial Monitoring and Reporting Tool (SMART) implementation; and (5) expanding elephant monitoring and data analysis to enhance government planning and management capacities. This project will contribute to the conservation of wild Asian elephants in the DPKY forest complex and transfer those methods to other landscapes in Thailand.

USFWS: \$65,000

Leveraged Funds: \$98,456

ASE1847

Award # F18AP00379

Living with elephants: Improving human-elephant coexistence in Thailand's Western Forest Complex Corridor.

In partnership with the Zoological Society of London. The goal of this two-year project is to promote the coexistence of Asian elephants and humans (HECx) by working with the government and communities in the Western Forest Complex (WEFCOM) of Thailand, a mosaic of protected areas and regionally significant elephant conservation landscape. Project objectives are to: (a) set baselines for the distribution, composition, and occupancy of elephants and livestock in protected areas, with a monthly monitoring program in place to inform an adaptive HECx approach; (b) build upon a socio-economic and human-elephant conflict (HEC) database through surveys and HEC monitoring and conduct annual meetings and awareness raising in two villages to develop a long-term HECx plan; and (c) implement elephant early-warning systems in two villages. Project activities include: (1) conducting camera trap surveys to

understand spatio-temporal distribution of elephants as well as livestock incursions into the protected areas; (2) conducting camera trap surveys at watering holes and mineral licks in the protected areas, as well as entry/exits used by elephants in four villages; (3) building a long-term individual identification database for elephants; (4) providing an elephant identification guide and training for protected area managers and staff; and (5) analyzing camera trap data on species movement and integrating it into mitigation strategies.

USFWS: \$53,963⁶ Leveraged Funds: \$65,180

VIETNAM

ASE1837

Award # F18AP00374

Saving Vietnam's largest remaining wild Asian elephant population. In partnership with the World Wildlife Fund - Vietnam. Vietnam's wild Asian elephant population has been in steep decline for decades, with a total remaining population of approximately 100 individuals divided across multiple small populations and several provinces. The largest of these populations is located in Dak Lak province, where 60-65 animals remain in Yok Don National Park (YDNP), an area of dry deciduous dipterocarp forest. This two-year project continues previous work in the landscape, with objectives to: (a) conduct baseline research on elephant populations to enable strategic conservation and management interventions; and (b) reduce human-elephant conflict (HEC) to minimize impacts on local communities' livelihoods and avoid retaliatory killings. Project activities include: (1) fecal-DNA assessments of elephants to determine population estimates through capture-mark-recapture approaches and population viability assessed through bottleneck analysis; (2) a feasibility study for GPS-collaring wild elephants; (3) development of an HEC management strategy with stakeholders; and (4) strengthening of stakeholder capacity to address HEC. This project will contribute to the conservation of YDNP, the largest protected area in Vietnam, and the remaining Asian elephants surviving in the landscape.

USFWS: \$43,304 Leveraged Funds: \$26,376

Modifications to existing grants

INDONESIA

Award # F13AP00831

An innovative partnership program for human-elephant coexistence and forest conservation in Aceh, Sumatra, Indonesia. In partnership with Asian Elephant Support. Additional funding will support the final phase of this partnership to increase the project's impact and secure the long-term sustainability of these impacts by supporting new activities. Past funding for this project enabled the creation of a new communications platform established in 2014 between members of the Aceh Parliament, civil society, academics, business executives, and the wider public. This platform, the Aceh Conservation Caucus, addresses sustainable development and conservation issues in the Aceh province of Sumatra, Indonesia. In a first important step, during an assembly meeting the Aceh Conservation Caucus initiators succeeded in convincing Aceh Parliament members to review the existing Aceh Spatial Plan. Now this is listed as a priority law to be reviewed through the annual government plan. A Caucus recommendation on the topic of

⁶ Funded by proceeds from sales of the Save Vanishing Species stamp.

elephant conservation and addressing human-elephant conflict was to establish defined elephant sanctuaries in Aceh. This concept is now adopted and is being followed up on by local governments in Aceh, Jaya, and Aceh Timur districts. A recent Caucus meeting discussed the Aceh Medium-term Plan (a five-year government plan); recommendations now being adopted are to include a recovery plan for key species (i.e., Sumatran elephant, Sumatran tiger, Sumatran rhino, and Sumatran orangutan), as well as environmental services compensation schemes for Aceh districts who conserve forest and wildlife. The final phase of this project includes the following activities: (1) operations of the Aceh Conservation Caucus, including quarterly technical and Parliamentary meetings; (2) outreach and communications, including maintenance of the Caucus web portal, production of briefs and awareness materials, press releases, and conducting meetings with news media; (3) policy development, stakeholder consultations, and team meetings; (4) legislative consultations and public hearings to support and draft development of the Aceh Wildlife Law; and (5) Aceh Spatial Plan land-use planning revisions, reviews, and public hearings.

USFWS: \$119,000⁷

Leveraged Funds: n/a

ASE1604

Award # F16AP00320

Conservation and monitoring of Sumatran elephants in Bukit Tigapuluh, Indonesia. In partnership with the Frankfurt Zoological Society. This modification supports year three of a five-year award. The purpose of this project is to support and supervise Community-Based Conflict Mitigation (CBCM) in order to decrease both loss and damages to farmers and retaliatory actions towards critically endangered Sumatran elephants, and to monitor movements of, and threats to, the resident elephant population of Bukit Tigapuluh, Sumatra, Indonesia. Project activities include: (1) in-house training of Elephant Conservation and Conflict Mitigation Unit teams; (2) monitoring and tracking GPS-collared elephants and their family groups to safeguard them from poaching and poisoning; (3) the re-capture of collared elephants to replace non-active collars; (4) monitoring and assessment of damages from human-elephant conflict (HEC) incidents; and (5) further strengthening the existing early-warning HEC system by working closely with village leaders and authorities to provide emergency hotline accessibility and quick response of ranger teams. This project will contribute to the peaceful coexistence of people and Sumatran elephants in one of the largest remaining lowland forests in Sumatra.

USFWS: \$48,000

Leveraged Funds: \$98,000

ASE1654

Award # F16AP00341

Saving the Sumatran elephant through supporting resort-based management in Bukit Barisan Selatan National Park, Indonesia to reduce encroachment and prevent poaching. In partnership with the Wildlife Conservation Society. This modification supports the final year of a three-year award. The purpose of this project is to assist Indonesian authorities to manage and reduce encroachment of agriculture and other development on Bukit Barisan Selatan National Park, Sumatra, Indonesia in order to maintain habitat for the critically endangered Sumatran elephant and other wildlife. The objectives will focus on preventing threats and on protection of habitat and elephants through patrols and direct monitoring in the field. Specific project activities include: (1) use of SMART (Spatial Monitoring and Reporting Tool) data to identify key

⁷ Of this, \$115,813 was funded by proceeds from sales of the Save Vanishing Species stamp.

elephant areas susceptible to encroachment and human-elephant conflicts; (2) increased patrols in national park areas threatened with active encroachment; (3) support to national park and law enforcement agencies for encroachment prosecutions; and (4) operation of Wildlife Crime Units to investigate and support government law enforcement agencies to arrest and prosecute wildlife traders. This project will contribute to the long-term conservation of Sumatran elephants and other wildlife by assisting Indonesian authorities in improving management and combating the illegal wildlife trade in Bukit Barisan Selatan National Park, Sumatra, Indonesia.

USFWS: \$59,530

Leveraged Funds: \$61,215

ASE1754

Award # F17AP00334

Saving the Sumatran elephant through supporting resort-based management in Gunung Leuser National Park, Indonesia to reduce encroachment and prevent poaching. In partnership with the Wildlife Conservation Society. This modification supports year two of a three-year project. The goal of this project is to assist Indonesian authorities in improving the management of Gunung Leuser National Park (GLNP), Sumatra, Indonesia to protect critically endangered Sumatran elephants and other wildlife. Objectives focus on the prevention of threats and on protection of habitat and elephants through patrols and direct monitoring in the field, in alignment with national park priorities. Project activities include: (1) strengthening GLNP through the integration of SMART (Spatial Monitoring and Reporting Tool) into forest patrols to reduce forest encroachment and other threats in areas with key elephant populations; (2) support to government law enforcement agencies to prosecute forest crimes detected by SMART patrols; and (3) combating the illegal trade in elephant parts by investigating and prosecuting wildlife traffickers. This project will contribute to the conservation of wild elephants in Sumatra, Indonesia by addressing the three main threats to wild elephants in GLNP – poaching and illegal wildlife trade, human-elephant conflict, and deforestation.

USFWS: \$58,368

Leveraged Funds: \$63,462

MALAYSIA

ASE1743

Award # F17AP00328

Assessing elephant habitat connectivity and usage in corridor sites in Pahang and Johor State in Peninsular Malaysia and reducing threats to the Asian elephant population in the Endau Rompin Landscape. In partnership with the Wildlife Conservation Society (WCS) - Malaysia. This modification supports year two of a three-year project, which is working to maintain connectivity for Asian elephants across the Endau Rompin Landscape of peninsular Malaysia, and to protect elephants through collaborative law enforcement and monitoring of habitat and landscape change. Project activities include: (1) mapping of plantation boundaries and fences to detect barriers to elephant movement; (2) assessing elephant use of pulpwood concessions; (3) landscape monitoring using Landsat 8 images; (4) SMART (Spatial Monitoring and Reporting Tool)-based patrolling; (5) multi-stakeholder patrols; (6) deployment of motion-sensored cameras to monitor entry points into reserve forests; and (7) provision of basic conservation education programs for Orang Asli communities within the landscape. This project will contribute to the conservation of Asian elephants in Malaysia by reducing threats to elephants, protecting elephants from poaching syndicates, gaining a better understanding of elephant movement within a fragmented agroforestry landscape, forging better relationships with forest

concession holders, and continuing dialogue with Orang Asli communities within the Endau Rompin Landscape of peninsular Malaysia.

USFWS: \$59,960

Leveraged Funds: \$120,593

MYANMAR

ASE1750

Award # F17AP00331

Long-term protection and monitoring of the Rakhine Yoma Elephant Range, Myanmar. In partnership with the Wildlife Conservation Society. This modification supports year two of a three-year award. This project aims to maintain and enhance the protection of wild Asian elephants in the Rakhine Yoma Elephant Range (RYER) in Myanmar through continued engagement with Elephant Protection Units (EPUs), provision of training and support, and by supplying patrol gear, including boats, to improve patrol performance and morale. Project activities include: (1) increasing the operational effectiveness of existing EPUs and expanding coverage by hiring additional captive Myanma Timber Enterprise elephants; (2) upgrading ranger substations and provisions of boats; (3) increasing effectiveness of patrols through adaptive SMART (Spatial Monitoring and Reporting Tool)-based patrol methodology; (4) identifying elephant distribution and hotspots; and (5) conducting regular analysis of satellite imagery to monitor and respond to forest encroachment and shifting cultivation within RYER. This project will maintain and enhance the protection of wild elephants and other wildlife of the RYER through the use of SMART-based patrolling and development of staff capacity to allow government and local staff to carry out their duties.

USFWS: \$59,848

Leveraged Funds: \$62,052

SRI LANKA

ASE1711

Award # F17AP00308

Population status and management of Asian elephants in south Sri Lankan protected area complexes. In partnership with the Elephant Forest and Environment Conservation Trust. This modification supports the final year of a two-year award. This project incorporates three primary program areas focused on the conservation of wild Asian elephants in Sri Lanka, and aims to: (a) monitor the long-term health of the elephant population in and around Uda Walawe National Park (UWNP); (b) demonstrate the value and feasibility of scientifically rigorous survey techniques by calibrating vehicle- and foot-transect survey methodologies; and (c) assist the Department of Wildlife Conservation (DWC) in the implementation of SMART (Spatial Monitoring and Reporting Tool) software as a tool for protected area management and law enforcement. Project activities include: (1) conducting baseline monitoring of elephants in UWNP and Lunugamwehera National Park, tracking births, deaths, and updating photographic identification records; (2) assessing indicators of the health of elephant populations subject to recent local elephant drives; (3) evaluating the efficacy of re-routing electric fences to mitigate human-elephant conflicts; (4) quantifying population dynamics of elephant bulls occupying UWNP via photo identification and estimating the proportion involved in crop-raiding; (5) working with DWC to design surveys and designate survey areas for which data are needed and to train DWC personnel in line-transect survey methods; (6) estimating the elephant population size in and around UWNP, using vehicle-based surveys; (7) estimating the elephant population in

and around UWNP under a distance sampling framework in parallel with photographic surveys; (8) training DWC personnel and collaborators to use and manage SMART software; (9) establishing standard operating procedures and guidelines for SMART patrols; and 10) providing technical support and advice to DWC as they trial SMART patrols in five protected areas.

USFWS: \$68,321

Leveraged Funds: \$115,640

THAILAND

ASE1650

Award # F16AP00339

Elephant conservation and education campaigns in the Western Forest Complex and capacity strengthening of future protected area managers, Thailand, Year 8-10. In partnership with the Wildlife Conservation Society. This modification supports the final year of a three-year award. The purpose of this project is to maintain the Thai Smart patrol system in Thung Yai West Wildlife Sanctuary (TYW) at its current intensity and coverage, to build a volunteer network in Huai Kha Khaeng (HKK) from existing volunteer groups and conservation clubs, and train undergraduate wildlife students from Kasetsart University on SMART patrol and wildlife monitoring techniques in HKK. Project activities include: (1) conducting follow-up monitoring with 18 patrol teams in TYW by providing technical support, refresher training, equipment, and patrol rations; (2) entry, review, and analysis of patrol data into the SMART database; (3) preparation and distribution of monthly SMART reports; and (4) building a volunteer network by selecting a group of 40 volunteers, including local school teachers, non-governmental organization representatives, and Thai university students, to participate in a five-day wildlife conservation workshop at HKK; (5) training 30 undergraduate students to receive 20 days of SMART patrol and monitoring techniques in HKK. This project will contribute to the protection and increase of the wild population of Asian elephants in Thailand's Western Forest Complex, a UNESCO Natural World Heritage Site.

USFWS: \$59,768

Leveraged Funds: \$61,127

ASE1652

Award # F16AP00340

Law enforcement monitoring and human-elephant conflict mitigation in Kaeng Krachan National Park, Thailand, Year 12-14. In partnership with the Wildlife Conservation Society. This modification supports the final year of a three-year award. The purpose of this project is to secure the long-term conservation of the wild Asian elephant population and its habitat in Kaeng Krachan National Park (KKNP) by increasing the effectiveness of protection efforts and reducing human-elephant conflict (HEC) in the region. Project activities include: (1) refresher training of KKNP staff in law enforcement and monitoring methods, use of SMART (Spatial Monitoring and Reporting Tool), and law enforcement monitoring data analysis and report writing; (2) reduction of HEC by promoting and monitoring standard HEC mitigation methods in local communities and extending the semi-permanent fence in Huai Sad Yai; and (3) expansion of elephant conservation education directed at villagers from HEC target sites to cover the whole of KKNP, an annual HEC and mitigation workshop in communities, and an education campaign for tourists. This project will lead to more effective patrolling and law enforcement activities in the Park; better provisioned, trained, and motivated staff capable of addressing the threat of elephant poaching gangs; and reduced retaliatory elephant deaths in Thailand.

USFWS: \$60,042

Leveraged Funds: \$60,736