BEST OF THE WILD: WILDLIFE CONSERVATION SOCIETY and the

SEIMA PROTECTION FOREST

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PHOTOS: COVER: A. MICHAUD; INSIDE COVER: E. POLLARD; PAGE 2: WCS-CAMBODIA; PAGE 3: A. MICHAUD; MAP P. SAYON AND R. ROSE; PAGE 5: E. POLLARD (3); PAGE 7, CLOCKWISE FROM TOP: A. MICHAUD; A.MICHAUD; M. HUNT/FREE THE BEARS FUND; PAGE 9, FROM TOP: E. POLLARD, E. BRIGGS; PAGE 11, FROM TOP: E. BRIGGS; WCS CAMBODIA; PAGE 13, FROM TOP: J. ROWLEY; E. POLLARD

Where Cambodia's remote eastern provinces meet the crowded central plains lays a dense tropical forest teeming with Asia's most charismatic wildlife.

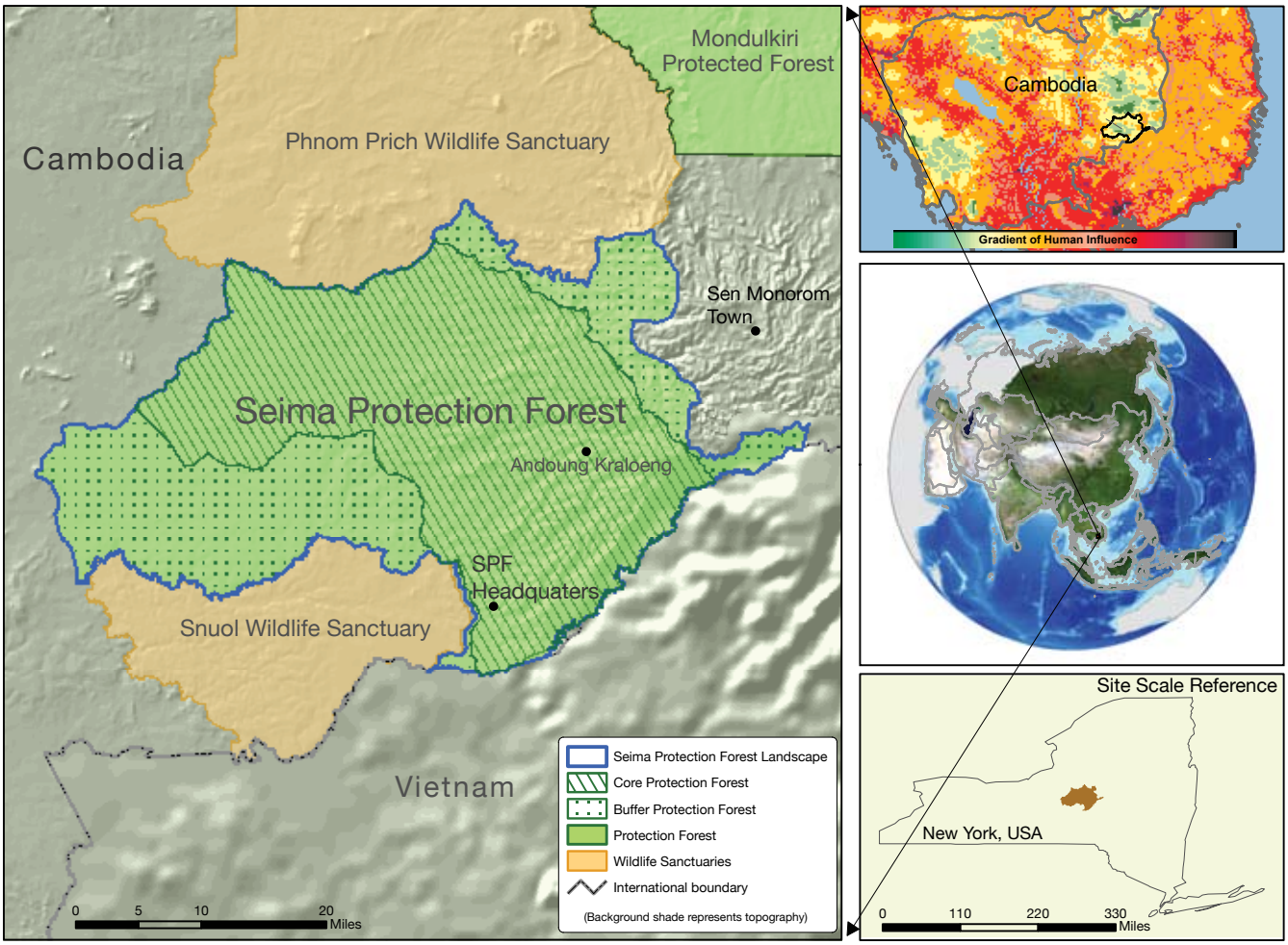
Elephants, tigers, hundreds of banteng and gaur —Asia's forest bison—and the world's largest population of black-shanked douc langurs still roam the forest. Each morning, more than 2,500 yellow-cheeked crested gibbons fill the forest with their haunting territorial song, sharing this haven with endangered giant and white-shouldered ibis and gaudy green peafowl. This remarkable place is the Seima Protection Forest—an 1,100 square mile global treasure and a last sanctuary for some of Asia's most spectacular wildlife.

Decades of civil conflict starting in the late 1960s left this and many other rural areas deserted, and their wildlife largely undisturbed. By the early 1990s people started to return to their traditional lands deep in the forest. Today, some 4,000 people, primarily from the Bunong ethnic minority, live in the heart of the Seima Protection Forest, engaging in traditional agriculture and harvesting forest products.

With increasing security and prosperity taking hold across Cambodia, previously remote forests like this one are ripe for poaching, illegal settlement, and commercial exploitation. Addressing these threats calls for improved law enforcement, diversification of local livelihoods, and expansion of sustainable finance initiatives.

In partnership with local communities and the Royal Government of Cambodia, over the last decade WCS has secured greater protection of the Forest's wildlife while building local and national constituencies for conservation. With the recent elevation of Seima to Protection Forest status, the highest level of security afforded by Cambodian law, comes an unprecedented opportunity to achieve our vision: abundant populations of elephant, banteng, tiger, yellow-cheeked crested gibbon, black-shanked douc langurs and green peafowl, with these and other threatened species typical of southern Indochina being recognized as an irreplaceable part of Cambodia's natural heritage and managed with pride to world-class standards. With new investments of $7.3 million over the next decade, WCS and our partners can achieve this vision for the conservation of Seima Protection Forest.

The Germain's silvered langur (cover) is globally endangered due to habitat loss throughout its range, though large groups are still seen regularly in riverside trees in the open forests of Seima. Inside cover: The first light of dawn breaks through the canopy of the Seima Protection Forest. Left: Banteng—wild cattle that once roamed the plains of Cambodia in large numbers—visiting a salt lick in Seima. Page 3: The first-ever photos of a wild Cambodian tiger were taken in Seima where they remain in very low numbers, but are highly threatened to supply wildlife trade. Map: Seima Protection Forest is an oasis of green at the eastern edge of Cambodia.


Mondulkiri Protected Forest
Cambodia
Phnom Prich Wildlife Sanctuary
Sen Monorom Town
Seima Protection Forest
Andoung Kraloeng
SPF Headquaters
Snuol Wildlife Sanctuary
Vietnam
Seima Protection Forest Landscape
Core Protection Forest
Buffer Protection Forest
Protection Forest
Wildlife Sanctuaries
International boundary
(Background shade represents topography)
0 5 10 20 Miles
Cambodia
Gradient of Human Influence
Site Scale Reference
New York, USA
0 110 220 330 Miles

Illegal hunting for meat and traditional medicine, often feeding demand from markets that may be hundreds or even thousands of miles away, is the most acute threat to the Seima Protection Forest and its wildlife. Lines of wire snares run across the forest floor like barely visible fences, indiscriminately trapping deer, medium-sized carnivores, and ground birds.

Hunters also work at night with spotlights and guns, or use dogs to catch slower moving species such as tortoises. Unfortunately, some species, including wild water buffalo and rhinoceros, were hunted out long before WCS arrived. Without effective protection, many of the remaining icons of Asia's forests will soon follow.

Illegal logging by powerful outsiders targets rosewoods and other luxury grade species worth up to $1,000 per cubic yard. Growing scarcity has driven prices up, encouraging ever more rapid overharvesting, and making enforcement by forest guards increasingly difficult and dangerous.

Today, the area remains sparsely populated, with just 1.5 people per square mile living in the Forest in 2008. However, human populations in and immediately around the Forest have grown by nearly 6% each year since 2005, driven by high birth rates and rapid establishment of new settlements. Because the process of establishing legal title for legitimate residents is poorly defined, control of illegal settlement in remote areas of the forest is among the highest priorities necessary to safeguard the Seima Protection Forest. Experience in a neighboring area demonstrates the result of inaction in the face of burgeoning frontier settlements: there, more than 5,000 people moved in over five years, drawn by the availability of potential farmland, and cleared an area of forest larger than Manhattan.

Though essential for economic development, roads also greatly facilitate illegal activities. Legal extractive industry is expanding, and concessions for plantations of rubber, cassava and other crops are crowding around the margins of the reserve. Moreover, new permits for mining exploration have been issued to companies seeking gold and bauxite deposits across an area of nearly 400 square miles in and upstream of the Forest.

Clockwise from top: Illegal harvesting of tropical hardwoods disturbs pristine forests that are home to primates and other wildlife. Wire snares can last for years and trap indiscriminately, putting huge pressures on endangered deer, gaur, and banteng. Clearance of forest outside Seima Protection Forest; strong government protection of Seima has stopped such clearance to date, but new settlements are ever-increasing.

WCS's ten-year vision for the Seima Protection Forest is that its healthy populations of Asian elephant, banteng, tiger, yellow-cheeked crested gibbon, black-shanked douc langur, green peafowl, and other threatened species typical of southern Indochina are recognized as an irreplaceable part of Cambodia's natural heritage and managed with pride to world-class standards.

To attain this vision, we shall hold ourselves accountable for achieving the following objectives over the next 10 years:

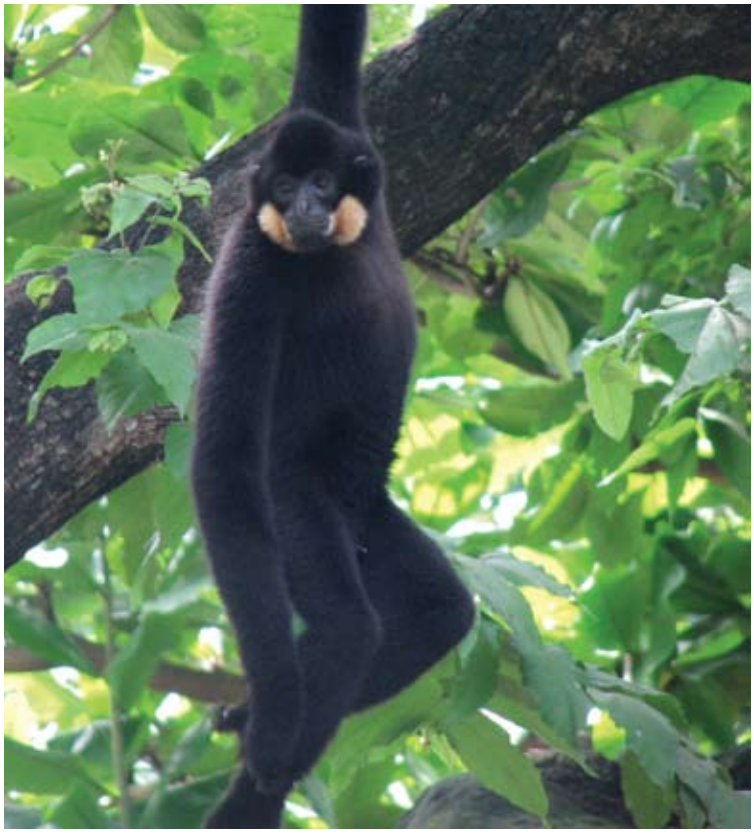
- Populations of Asian elephant, gaur and banteng will increase by 50%.
- Populations of yellow-cheeked crested gibbon, black-shanked douc langur, tiger, Eld's deer, sambar, otters, giant ibis, and green peafowl will remain stable or increase.
- The rate of loss of evergreen forest, deciduous forest, and wetlands will be reduced to less than 0.1% per year.

These objectives focus on a suite of threatened species that use all habitats within the Seima Protection Forest. Conserving them will protect much of the biological wealth of the area, while providing a focus for building public support and ensuring that legitimate uses of the area by local people are sustainable.

WCS will have achieved its vision when:

- Law enforcement operations control illegal hunting, logging, and deforestation.
- The illegal clearance and settlement of forest is halted, and formal agreements regulate the agricultural activities of local indigenous communities and other legitimate residents.
- The livelihoods of local communities are enhanced and there is a local constituency for conservation of the Forest.
- Sustainable finance mechanisms, based on carbon offsets and other innovative sources, have been developed to pay for the long-term conservation of the Seima Protection Forest.
- Seima Protection Forest is managed using high quality scientific information on key species such as Asian elephant, primates, and ungulates.

Clockwise from top: A female green peafowl drinks at a forest pool: this region is home to what may be the world's largest population of this endangered pheasant. The population of Asian elephants in Seima is one of the most important in Indochina. Male yellow-cheeked crested gibbon—Seima's population of these melodious apes is ten times greater than any other area.



The time to protect Seima Forest is now. Its protected status has recently been elevated, pilot programs have led to community engagement in conservation, and the Forest remains a stronghold for some of Asia's most charismatic wildlife.

To ensure that law enforcement operations control illegal activities, WCS will:

- provide funding and technical support to train and equip patrol staff from the Cambodian Forestry Administration and other agencies.
- monitor law enforcement effectiveness to help patrols best target their efforts, including along roads and other areas vulnerable to new settlements.
- train villagers living inside the Forest to conduct effective community law enforcement patrols, building their capacity to protect traditional village lands.

To halt illegal settlement in forest areas and formalize land title agreements, WCS will:

- expand a pilot program of indigenous land titling, forest demarcation, and village natural resource management agreements to all local villages.
- facilitate land swaps, compensation payments, or alternative employment for families who wish to reduce their dependence on forest resources.

To enhance local livelihoods and build a constituency for conservation, WCS will:

- ensure that carbon offset market revenues benefit local communities and provide incentives for conservation (see box on page 9).
- help six villages earn income in the buffer zone through sustainable timber harvests, including developing timber management plans and marketing chains.
- increase ecotourism revenue of four communities by expanding programs that bring groups of bird watchers from overseas.
- disseminate sustainable agriculture methods to boost villagers' incomes consistent with land-use plans.
- work with the national media to build appreciation of the Seima Protection Forest amongst decision-makers and the general public.

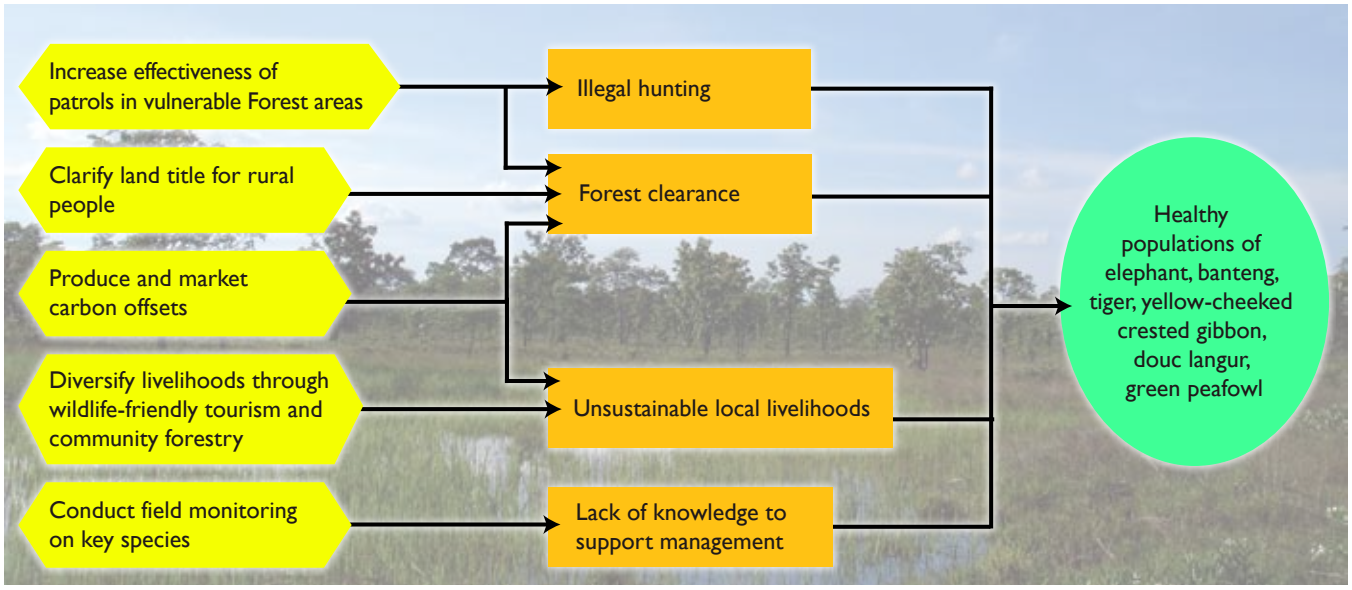
To ensure that long-term conservation is sustainably financed WCS will:

- work with the Royal Government of Cambodia to produce and market carbon offset credits under the REDD framework (see box on page 9).
- diversify the long-term funding base for the landscape through tourism, sustainable forestry, and capitalization of a trust fund.

To ensure that high quality research informs management WCS will:

- strengthen monitoring programs for key species and the threats they face.
- collaborate with academic partners to understand the conservation needs of Asian elephant, primates, and ungulates.
- build science-based management capacity through management planning, review, and adaptation.
- enhance staff career development through professional training and education.

From top: An example of the causal relationships underlying WCS 's conservation strategy for acting (in yellow) to counteract threats (in orange) to achieve explicit conservation targets (in green). Regular patrolling by law enforcement agencies helps control many of the most severe threats to wildlife in Seima.



REDD: A Conservation Finance Solution

Deforestation is responsible for at least 17% of global emissions that contribute to climate change, and REDD —Reducing Emissions from Deforestation and Degradation—is designed to benefit countries that reduce rates of deforestation and protect forests. Using internationally approved methodologies for measuring net carbon benefits and verifying actual achievement of emission reductions, REDD projects enable countries to market emission reduction credits and use the revenue to bolster forest protection, while also protecting important biodiversity and investing in economic development. Already a large voluntary market for REDD "credits" has formed, and the Seima Protection Forest has created a model for a successful REDD project whose credits will enter that market in 2010.

After almost a decade of pioneering work through a period of dramatic change, WCS is uniquely positioned to deliver on these commitments and safeguard the Seima Protection Forest.

At the end of the 1990s Cambodia emerged from three decades of war, and WCS and government partners discovered an area of rich biodiversity in an active logging concession. Following the collapse of the concession system nationwide, the Royal Government of Cambodia invited WCS to partner with it to test alternative forest management approaches in key parts of the inactive Seima concession that were designated as a 'Biodiversity Conservation Area'.

Our program of on-the-ground conservation, research, and community negotiations transformed the former logging concession into one of the most successful protected areas in the region, culminating in the Government's landmark 2009 decision to upgrade the Forest's protected status. Physical infrastructure now includes a headquarters and six field stations. The law enforcement unit has been expanded, equipped, and trained, while a community liaison team led by government specialists works to raise awareness of conservation laws, resolve conflicts, develop land-management agreements, and pilot alternative livelihoods. Early results from the largest and most rigorous monitoring system in Indochina show large, stable populations of key primate and bird species, and confirm that deforestation is held at a dramatically lower level than in the surrounding area.

To underpin this work WCS has sought to increase livelihood incentives and political support for the Forest. Since 2003 we have assisted a local village, Andoung Kraloeng, to map its land, codify its traditional social structures, and testify to an Inter-Ministerial task force developing new laws for indigenous land registration. Community cohesion has grown, and the village has successfully repelled many attempts by outsiders to grab its land, benefiting both conservation and community well-being. WCS is assisting an additional four villages in the same process, with more to follow.

We launched a community-based tourism program in 2009 that focuses on specialist bird tours, are helping to develop a community-run timber harvesting operation in the buffer zone of the reserve – the first of its kind in Cambodia – and are assisting a local organization to reduce deforestation by promoting improved farming techniques.

From top: Project staff consulting with villagers in Andoung Kraloeng on sustainable uses of forest resources. A bull gaur visits a water hole at the height of the dry season, these wild cattle are globally threatened and are also important prey for large carnivores such as tigers.

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WCS

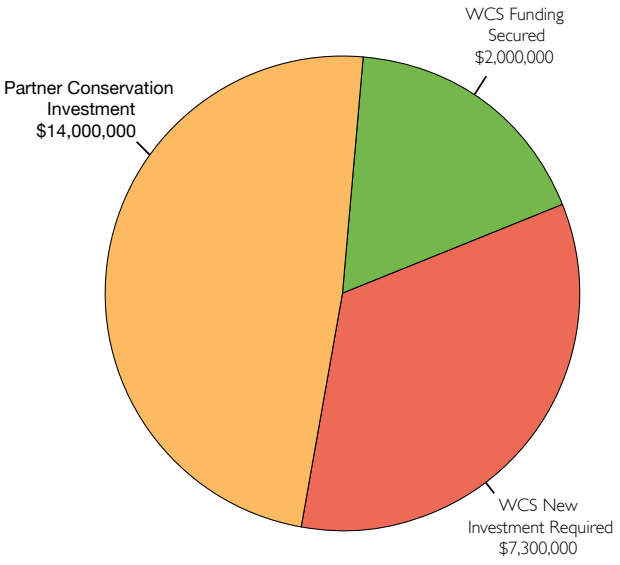
With economic development accelerating across the region and rural populations increasing, the Seima Protection Forest and its spectacular wildlife face daunting new threats. But we can succeed in conserving this, one of Asia's premier wildlife sanctuaries for only $3.30 per acre each year.

- *With $260,000 per year over the next ten years,* WCS will help the Cambodian government control illegal hunting, logging, and deforestation. Funding will allow us to train law enforcement staff and make patrols more effective.
- *With $150,000 per year over the next ten years,* WCS will help the Royal Government of Cambodia halt illegal settlement in forest areas and establish land use agreements. Funding will allow us to expand a successful pilot program in land titling, demarcate forest boundaries, and promote movement of settlements away from vulnerable sectors of the Forest.
- *With $185,000 per year over the next ten years,* WCS will enhance local livelihoods and build a broad constituency of support for the Seima Protection Forest. Funding will allow us to expand innovative programs for local communities to benefit from conservation, diversify local livelihoods, and publicize the value of the site nationally and internationally.
- *With $145,000 per year over the next ten years,* WCS will help to secure long-term financial sustainability for the Seima Protection Forest. Funding will allow us to assist the government in marketing carbon offsets and diversify sources of long-term sustainable financing.
- *With $190,000 per year over the next ten years,* WCS will ensure that management is informed by science. Funding will allow us to conduct management-oriented research on threatened species, livelihoods, and ecosystems processes, institute a cycle of formal adaptive management, and build professional capacity.

Saving the Seima Protection Forest will require a total investment of $23.3 million over the next ten years. Of that total, $9.3 million is required to support WCS activities, of which $2 million has already been identified. New investments totalling $7.3 million in WCS activities will leverage an additional $14 million from sustainable finance sources such as carbon sales, as well as from NGO, community and government partners.

Clockwise from top: Mouhot's litter frog was first discovered in the Seima Protection Forest and is still known globally from only a few rivers. WCS and Cambodian government staff weighing leaf litter in order to measure the amount of carbon stored in the forest—the sale of 'carbon credits' has the potential to transform funding of protected areas like Seima. Estimated investment in conservation of Seima through 2020.

Estimated Investments in the Seima Protection Forest (2010–2020)



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Panthera

US Fish and Wildlife Service

The World Bank

WCS'S SUCCESS IN THE SEIMA PROTECTION FOREST CAN BE ATTRIBUTED IN PART TO OUR STRONG LOCAL PARTNERSHIPS:

Agricultural Technical Services Association

Cambodia Rural Development Team

My Village

Royal Government of Cambodia (Forestry Administration)

Sam Veasna Centre for Wildlife Conservation

Worldwide Fund for Nature

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