



# Eastern Sarus Cranes, Wetlands, and Livelihoods:

## THE PROGRAM FOR SOUTHEAST ASIA

The Sarus Crane is the world's tallest flying bird, reaching heights of six feet, and since ancient times has been among the most revered wildlife species in Southeast Asia. In Myanmar, the Sarus Crane is celebrated as one of the hallowed reincarnations of Buddha. In Cambodia, Sarus Cranes are engraved on the ancient temple walls of Angkor Watt. In Vietnam, the Sarus Crane is the “holy bird” that carries the souls of the dead upwards to heaven.

**The cultural significance of Sarus Cranes makes them an ideal flagship species for biodiversity conservation in Southeast Asia.** For more than thirty years, the International Crane Foundation has wielded the charisma of Sarus Cranes to secure and restore key wetlands on which they depend—creating new protected areas, helping local communities improve their livelihoods, and training future leaders in wetland ecology and management.

- We helped establish six national protected areas for Sarus Cranes: Tram Chim National Park, Phu My Nature Reserve, and Lo Go Xa Mat National Park in Vietnam; and An Trapaeng Thmaw Wildlife Sanctuary, Boeung Prek Lapouv Sarus Crane Sanctuary, and Anlung Pring Sarus Crane Sanctuary in Cambodia.
- We successfully implemented an alternative development model for the wetlands of the Mekong River delta wetlands, through which household income, employment, *and* wetland biodiversity increased. For this work we received the United Nations Dubai International Award for Best Practices, the UNDP Equator Prize, and the World Bank Development Marketplace Award.
- We dramatically increased the capacity for wetland research and management in Southeast Asia by facilitating a network of twenty-four universities across seven countries. We have trained more than 300 teachers and wetland managers through this program.



Photo by Tran Triet

Despite these gains, the Sarus Crane is in peril across Southeast Asia. Sarus Cranes once occurred in Philippines, but this subspecies went extinct in the mid-20th Century. Sarus Cranes were also lost from Thailand, although a small population is being reintroduced to former breeding grounds. For more than thirty years, Sarus Cranes were also thought to be extinct in Cambodia and Vietnam, until an isolated population was rediscovered in 1985. This wild population now numbers just 400 birds. The Sarus Crane population in Myanmar, little studied until recently, may number fewer than 400 birds.

The primary threat to Sarus Cranes across Southeast Asia is loss of wetland habitat. Wetlands where Sarus Cranes breed and winter in Cambodia and Vietnam have been extensively converted for rural development, rice farming, and shrimp ponds. The Ayeyarwaddy Delta wetlands that Sarus Cranes use in Myanmar are undergoing a similar rapid transformation. Deforestation of the deciduous Dipterocarp forests and the conversion of wetlands for farming threaten the small wetlands where Sarus Cranes breed in northern Cambodia. Climate change and drought exacerbate these risks. Other emerging threats include accidental poisoning and nest disturbance by people and domestic dogs.



Photo by Doan Hong

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## OUR IMPACT

The International Crane Foundation's Program for Southeast Asia focuses on safeguarding the key populations of Sarus Cranes in Cambodia/Vietnam and Myanmar. To guide our future conservation efforts, we recently organized a workshop in Phnom Penh. Crane conservationists, researchers, wetland managers, and government officials from Cambodia, Vietnam, Myanmar, and other range countries gathered to review the status of the population, identify threats, and propose intervention solutions. The workshop resulted in the Eastern Sarus Crane action plan, and designated the International Crane Foundation as the lead organization for implementing the plan with partners throughout the region.

*The future of the Sarus Crane in Southeast Asia will require our continued commitment to the innovative solutions for wetland protection and biodiversity conservation that the International Crane Foundation has championed for more than 30 years—solutions that benefit local people and wildlife.*

### Securing Sarus Crane Breeding Grounds in Northern Cambodia

Sarus Cranes breed in small wetlands set amid the deciduous Dipterocarp forests of Northern Cambodia. These wetlands are vital for many endangered species, including Giant Ibis, White-shouldered Ibis, Eld's deer, Banteng, and Asian elephants. They also provide water and other natural resources that help local communities survive the long, hot dry season. In recent years, however, Northern Cambodia has undergone rapid deforestation. Many wetlands are being converted to rice agriculture. Human settlements are expanding. Nest disturbance and accidental



poisonings are on the rise. As result, Sarus Cranes and many other species of concern are rapidly decreasing. To reverse this decline, we are taking the following urgent actions:

- Collaborating with the Cambodia Ministry of Environment to issue new regulations to prevent the destruction of all remaining wetlands that serve as crane nesting sites.
- Establishing a pilot project to promote conservation-friendly farming practices that reduce wetland disturbance. We will increase awareness about the economic value of the goods and services provided by healthy wetlands to local communities and the role of wetlands in increasing climate-change resilience.
- Reducing Sarus Crane nest disturbance by training villagers about the impacts of their activities on nesting cranes and the changes they can make to help cranes.
- Preventing accidental poisoning of Sarus Cranes and other wildlife in Cambodia through a behavioral change campaign aimed at reducing the use of poisons to hunts birds and promoting safe practices for use of agricultural chemicals.



Photo by Tran Triet



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## Protecting and Managing Wetlands of the Mekong Delta, Vietnam

Since the rediscovery of the Eastern Sarus Crane in the Mekong Delta in 1985, the International Crane Foundation has been the leading force for crane and wetland conservation in the region. We were instrumental in establishing Tram Chim National Park, the largest wetland protection and restoration area in the Mekong Delta. At Phu My, we developed a handicraft business that is improving livelihoods through the sustainable production and sale of handicrafts made from the dominant wetland sedge, *Lepironia*. The project has tripled local employment in the community and increased

household income by 400%—while the Sarus Crane population using these wetlands has increased from fewer than ten to more than 300! The project also generates sufficient revenue to cover most of the costs of managing the wetlands. Based on the success of Phu My as an alternative development model for the Mekong Delta, and

on appreciation of the natural capital of wetlands, the Provincial government moved to protect the wetland from intensive agricultural development. Our continued leadership role in Vietnam includes:

- Applying the successful model created at Phu My to other critical wintering sites for Eastern Sarus Cranes in the Mekong Delta, including Anlung Pring on the Vietnam-Cambodia border.
- Providing Tram Chim National Park with technical support for the management of water, fire, and invasive species.

## Making the Case for Wildlife-Friendly Rice Farming in Myanmar

The population status and ecology of Sarus Cranes in Myanmar is poorly understood. In the Ayeyarwady Delta of Myanmar, Sarus Cranes and many other waterbird species inhabit naturally-flooded rice paddies intermixed with natural wetlands that are inundated for 5-6 months of the year. This wildlife-friendly land use is under increasing pressure for conversion to intensified agricultural systems that produce 2-3 rice crops per year through irrigation, wetland drainage, and increased application of fertilizers and pesticides. The rapid expansion of freshwater fish aquaculture, which converts deep-flooded rice paddies to fish ponds, further reduces habitat for cranes and other wildlife in the Ayeyarwady Delta. We will support the efforts of our Myanmar colleagues to assess and protect Sarus Cranes by:

- Training and supporting Myanmar faculty and students to monitor nests and feeding grounds, assess habitat requirements, and evaluate emerging threats for Sarus Cranes across the country.
- Implementing a pilot project that promotes wildlife-compatible, high-value, organic, deep-flooded rice farming as a viable economic alternative to intensive triple-crop rice production for local communities near Wakima in the Ayeyarwady Delta.
- Monitoring fish pond expansion in crane areas and sharing crane data with the Myanmar government agencies responsible for aquacultural development as a basis for sustainable land use decisions.
- Developing a Sarus Crane Action Plan for Myanmar, and implementing this plan in partnership with university colleagues, government agencies, and NGOs.

## Training Future Leaders

The International Crane Foundation created the University Network for Wetland Research and Training in the Mekong Region to address the lack of capacity for wetland research and management in Southeast Asia. Now in its 18th year, the network has grown to include twenty-four universities from seven countries. Every year a different country hosts the annual three-week intensive training course on wetland ecology and management, providing classroom and field training for more than twenty students. Previous workshop participants become the trainers in subsequent workshops. To date the University Network has trained 310 young lecturers and wetland managers from universities, governmental agencies, and conservation NGOs in the Mekong river basin and beyond. The University Network also has the



Photo by Nguyen Hoai Bao

capacity to conduct wetland monitoring and assessment at an unprecedented scale across the entire region. For example, a Persistent Organic Pollutants study completed in 2012 involved coordination among 10 university partners in Cambodia, Laos, Myanmar, Thailand, and Vietnam. We are committed to maintaining the knowledge and leverage provided by the university network by:

- Facilitating training courses for university lecturers and wetland managers. Over the next five years, training activities will focus on vulnerability assessment and adaptation planning with regard to the impacts of climate change on wetland ecosystems.
- Mobilizing the university network to conduct basin-wide research to address emerging and ongoing threats to wetlands and their watersheds.

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## WE NEED YOUR SUPPORT

The International Crane Foundation has been a proven leader and champion of Sarus Crane and wetland conservation in Southeast Asia for nearly three decades. Our award-winning projects provide sustainable solutions for livelihood improvement and biodiversity conservation. We have fostered an exceptional training network that has produced conservation leaders committed to the future of the region.

*Please join us in safeguarding healthy wetlands for Sarus Cranes and the rich diversity of wildlife of Southeast Asia.*



Photo by NDaren Diserens

### FOR MORE INFORMATION CONTACT:

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