

## Conservation of threatened grassland biodiversity in the Tonle Sap basin, Cambodia

Briefing document, June 2010

### Project partners:

Department of Wildlife and Biodiversity, Forestry Administration  
Wildlife Conservation Society  
Centre d'Etude et de Développement Agricole Cambodgien  
Angkor Center for Conservation of Biodiversity

Fisheries Administration  
BirdLife International  
Sam Veasna Centre  
University of East Anglia

### Summary

The grasslands of the Tonle Sap floodplain are critically important for biodiversity and people's livelihoods. Low-intensity traditional human use has helped to maintain the habitat. Recent agro-industrial development by outside investors is causing rapid loss of grasslands, threatening both biodiversity and local livelihoods. The Cambodian government has established more than 310 km<sup>2</sup> of protected grassland within six Bengal Florican Conservation Areas (BFCAs). This is a valuable step towards ensuring the preservation of a part of these grasslands, to the benefit of both wildlife and local communities, whilst leaving room for intensive development activities elsewhere.

A partnership of NGOs and government agencies is working to set up management systems for these BFCAs. Local and national government agencies are involved in project activities, law enforcement and decision making. All sites are patrolled by joint teams of government officers and selected members of the community. Elected community management committees have been set up at two of the BFCAs. These committees represent the interests of communities who depend on these reserves for their livelihoods and participate in management and livelihood development activities. The status of the flagship species for the BFCAs, the Bengal Florican, is monitored annually and scientific research on this species has been ongoing since 2002.

### Narrative

The Tonle Sap floodplain once supported several thousand square kilometres of seasonally inundated grassland. The remnants support more than half of the world population of a Critically Endangered bird, the Bengal Florican. There are also many other threatened or important species including Sarus Crane, White-shouldered Ibis, Greater Adjutant, rare turtle species and a high diversity of fish.

The grasslands are also important for the livelihoods of people in hundreds of villages, who have long used them for grazing, fishing, family-scale farming and the collection of plant products. These human uses help to maintain biodiversity and habitat condition. Irregular cycles of ploughing and fallowing prevent scrub invasion but allow grasslands to persist, and the patchwork of active fields and grassland is attractive to floricans and other species. Grazing and burning also help to prevent scrub invasion. Recent fieldwork by researchers from the University of East Anglia, in collaboration with the Department of Wildlife and Biodiversity and others, has been crucial to the understanding of these processes.

WCS Cambodia and other partners have been working in collaboration with the Department of Wildlife and Biodiversity for more than a decade to conserve these sites. At first hunting was the key threat, but this has rapidly changed since 2004 and the grasslands themselves are now declining very rapidly. In the ten main grassland blocks, 28% of the grasslands were lost in 30 months from 2005 to 2007, and losses have continued at a high rate since then. Most of the loss is due to a recent wave of agricultural conversion by companies and businessmen. Earth dams of 100-1000 ha are built to capture the floodwaters in the rainy season and then irrigate surrounding rice fields in the dry season. This is quite different from the small-scale dry season rice farming ('recession rice') practised by local communities. Local community members are mostly excluded from the new, large-scale schemes and often report that they suffer because they are dispossessed without compensation of the lands they formerly used. There have been widespread protests and complaints. There are also concerns about intensive pesticide use and the impacts of both intensive agriculture and reservoirs on the hugely important floodplain related fisheries.

From 2005 onwards the Department of Wildlife and Biodiversity worked with NGO partners to develop proposals for a solution in the form of a new land-use designation – Bengal Florican Conservation Areas (BFCAs). These protect existing grassland management systems. New large-scale earth dam projects are not permitted, while existing projects are reviewed. Uses by existing communities are encouraged to continue under co-management frameworks. This will benefit both threatened wildlife and local communities, and it is also expected to bring wider benefits by maintaining land-use diversity in these districts, leading to ecological and economic stability. Some of the sites also overlap with, and improve the protection of, Fishing Lots.

There are currently six BFCAs covering 31,159 ha (312 km<sup>2</sup>) in Kampong Thom and Siem Reap provinces, declared under a *Prokas* issued by the Ministry of Agriculture, Fisheries and Forestry (see Annex and Map for details).

Key achievements are listed below:

- three BFCAs (Stoung, Chikraeng and Baray) have been fully demarcated with boundary markers
- the BFCAs are being patrolled regularly by joint government/community law enforcement teams, leading to many detections of illegal land claims and hunting
- with involvement of both the authorities and communities, the unauthorized development of several dry season rice cultivation schemes have been blocked
- two cycles of community extension and awareness raising have been conducted, one at commune level, one at village level, and levels of awareness and community support have increased
- a monitoring system for breeding floricans, non-breeding floricans and non-breeding Sarus Cranes has been put in place and is being progressively improved. A baseline of the number of territorial (breeding) male birds conducted in March 2009 estimated around 23% of the national population within the BFCAs.
- a survey of livelihood activities in and around one of the BFCAs has been conducted by CEDAC
- CEDAC has conducted 3 ½ years of livelihood development activities in seven villages that use BFCAs, focusing on intensifying rice cultivation, vegetable production and chicken production outside the BFCAs, as well as home gardening only in a further five and chicken raising only in a further eight villages. In all of the villages, savings groups have been established to enable farmers to obtain low interest loans within their community.
- four community consultation committees have been formed in two BFCAs (Stoung and Chikraeng) with a mandate that involves site management and livelihood development
- from November 2009 – April 2010 approximately one hundred specialist bird tourists have visited the sites through Sam Veasna Centre; with a community conservation levy of \$10 per visitor paid that is used for community lead initiatives

#### Future priorities

- continue to **demarcate** the remaining BFCAs on the ground
- continue to strengthen the work of **government authorities and joint patrol teams** to ensure the control of major land threats
- **expand the community committees to all sites** and increase the ability of these communities to protect and manage the grasslands they use
- **implement livelihood development activities** linked to better management of the grasslands – agricultural extension, savings groups, marketing of ‘wildlife friendly products’ and increased community involvement in ecotourism
- research the floricans’ ecological requirements to provide **management guidelines for the grasslands**
- identify ways to **increase the populations of floricans in the agricultural landscape outside BFCAs**
- develop **management plans** for the BFCAs
- develop a sustainable **financing system** for the BFCAs

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**Key references** (Please contact the project for a full bibliography and copies of relevant reports)

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## Annex

The project target communes are shown in the table below, followed by a map of the Bengal Florican Conservation Areas.

Target Districts and communes

Province	District	Communes
Kampong Thom	Stoung	Prolay, Trea, Kampong Chen Cheung (marginal)
	Baray	Chong Doung, Baray, Treal, Sralao
	Prasat Ballangk	Sammeakki, Kraya, Phan Nheum, Toul Kreul, Sala Visai
Siem Reap	Chikraeng	Lveang Russei, Spean Tnaot

# Bengal Florican Conservation Areas in Siem Reap and Kampong Thom Provinces

