

**Environmental Impact Assessment
and
Environmental Management Plan**

Date
09th October 2018

CEPF Grant
CEPF-097

Grantee
Wildfowl & Wetlands Trust

Project Title
**Strengthening the Capacity of Community-Based Institutions Instrumental to Conservation
of Seasonally-Inundated Grasslands in the Mekong Delta in Cambodia**

Project Location
Cambodia

Grant Summary

1. Grantee organization: Wildfowl & Wetlands Trust
2. Grant title: Strengthening the Capacity of Community-Based Institutions Instrumental to Conservation of Seasonally-Inundated Grasslands in the Mekong Delta in Cambodia
3. Grant number: *CEPF-097*
4. Grant amount (US dollars): \$20,000
5. Proposed dates of grant: 1st October 2018 – 30th September 2019
6. Countries or territories where project will be undertaken: Cambodia

7. Summary of the project

Anlung Pring (AP) and Boeung Prek Lapouv (BPL) are two of the few remaining seasonally inundated grasslands in the Cambodian Lower Mekong Delta. WWT, together with local partners, have supported community members to mobilize themselves into community-based natural resource management associations, with legally recognized Community Fishery (CFi) and Community-based Ecotourism (CBET) groups established at BPL and AP respectively. This CEPF project aims to build capacity within local groups to sustainably manage the CBET and CFi initiatives, helping them grow and diversify to build resilience for the future. Within this project WWT will support the building of a fisheries patrolling platform at BPL to allow the community management groups to monitor natural resource usage, allowing them to work alongside the site's rangers to record and address illegal resource exploitation. A previous WWT ecosystem service assessment showed that 51% of local people in and directly around BPL consider fishing to be an important element of their livelihoods

8. Date of preparation of this document: October 2018

9. Status of area to be impacted

This CEPF project covers two Protected Landscapes. However, the ecological impact of the creation of a fisheries platform will be solely restricted to a small section of BPL, and hence this EIA is restricted to BPL Protected Landscape. BPL is situated in Takeo Province, close to the border with Vietnam in the south of Cambodia (Figure 1). It represents one of the largest remnants of seasonally-inundated wet grassland in the Lower Mekong Region at over 8,300 hectares in size. It is one of 40 globally Important Bird Areas (IBAs) identified as key sites for conservation in Cambodia and was designated as a Protected Landscape under the auspices of the Ministry of Environment in 2016. BPL it is a relatively flat area of land located in the western floodplain of the Bassac River, which is a tributary of the Mekong River. The grasslands are under threat from agricultural conversion throughout the region. The hydrology has been significantly altered to facilitate rice-growing and BPL will require direct long-term management to conserve this valuable landscape.

The wetland harbours different ecosystems based on physical and hydrological characteristics and ecological processes. Figure 2 provides an overview of the main land classification areas in BPL. There are four main habitats that can be distinguished in BPL: seasonally inundated grasslands, scrub and gallery forests, open water with aquatic plants, and rice fields.

- **Seasonally inundated grasslands.** These grasslands include large areas of the former core zone and stretch out to the southern part of the reserve, covering almost 2,000 hectares (24 %) of the

wetland. After the rainy season, the grasslands turn green, dominated by plant species as *Panicum repens*, *Eleocharis dulcis* (water chestnut), *Ischaemum rogusum*, *Impomea aquatic*, *Youngia japonica*, *Imperata cylindrica* etc. The grasslands are a favourable feeding ground to bird species as sarus crane, painted stork, Asian spoonbill.

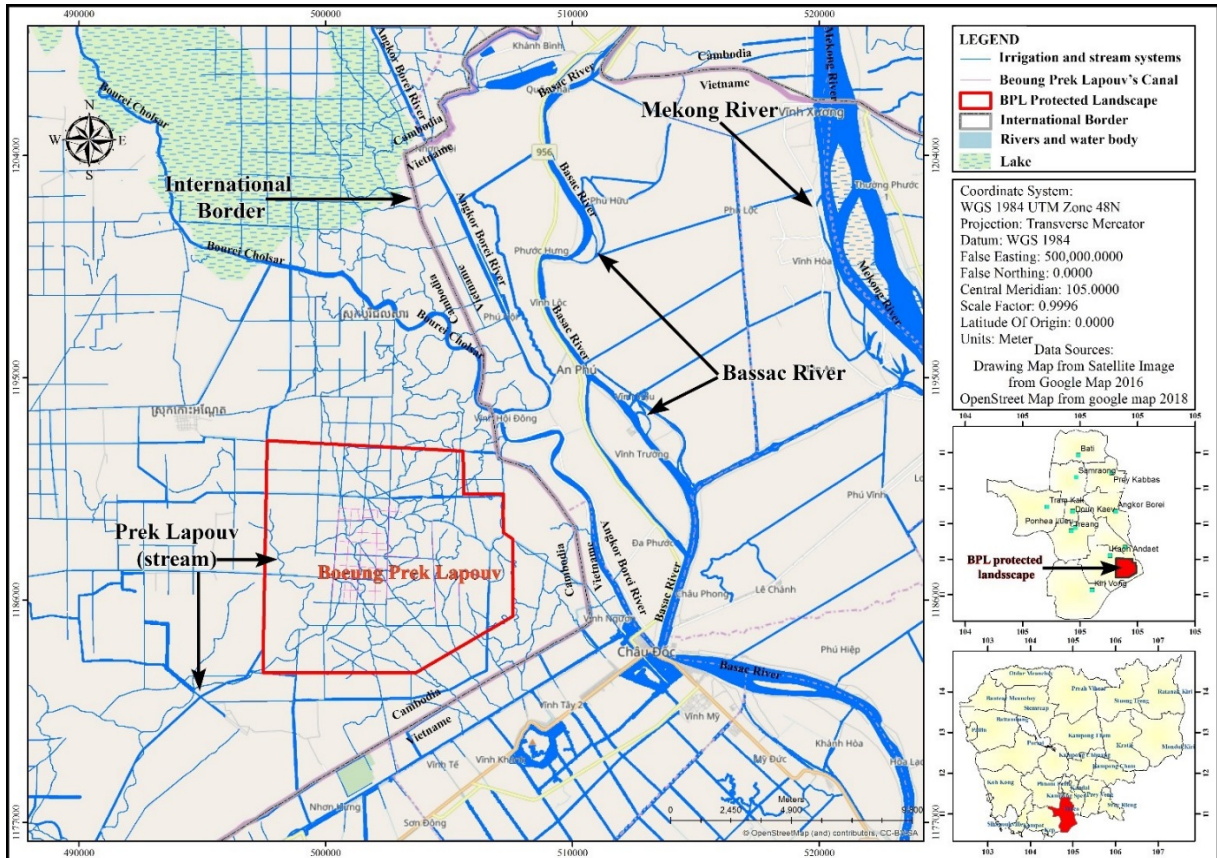


Figure 1: Location of BPL in relation to major rivers and streams

- Shrubs and gallery forests.** These forests cover only 108 hectares (less than 1 %) but are densely distributed in higher parts in the south of the reserve and along river banks and canals. Common scrub and tree species include *Morinda citrifolia* L., *Gmelina asiatica*, and *Barringtonia acutangula*, which depend on flood for regeneration. Areas with *Barringtonia acutangula* provide a home to various wintering bird species, e.g., painted stork, purple heron, grey heron, Asian openbill. It is also home to fish, rat, snail, snake, and turtle, species that are used as food source by local communities, who also collect firewood from the forests. At some places, *Mimosa pigra*, an invasive species, forms mono-dominant stands on high-mid elevations where the soil has been disturbed, such as on embankments.
- Open water with aquatic plants.** This is the general habitat of the Prek Lapouv canals and of water bodies. These are mainly located in the north and west of the former core zone. The total area covers around 1,150 hectares (13,7 %), of which 926 hectares of aquatic vegetation and 230 hectares of canals and streams. Dominant species are *Nelumbo nucifera* (lotus), *Nymphaea* sp. (water lily) and *Eichhornia crassipes* (water hyacinth). Where lotus is not dominant (e.g. in a restored fish spawning canal), the habitat provides a home to many fish. Specifically, water lily is an important food source for many species.

- Rice fields.** Large areas in BPL are in use as rice fields, except the former core zone and the southernmost part of BPL where agricultural activities are not favourable. The total rice area covers almost 5,000 hectares (61 %). Rice farming is people’s main livelihood in the area. Rice is cultivated 1-2 times per year depending on field conditions and access to water. Some near threatened bird species have been recorded in this habitat, such as painted stork.

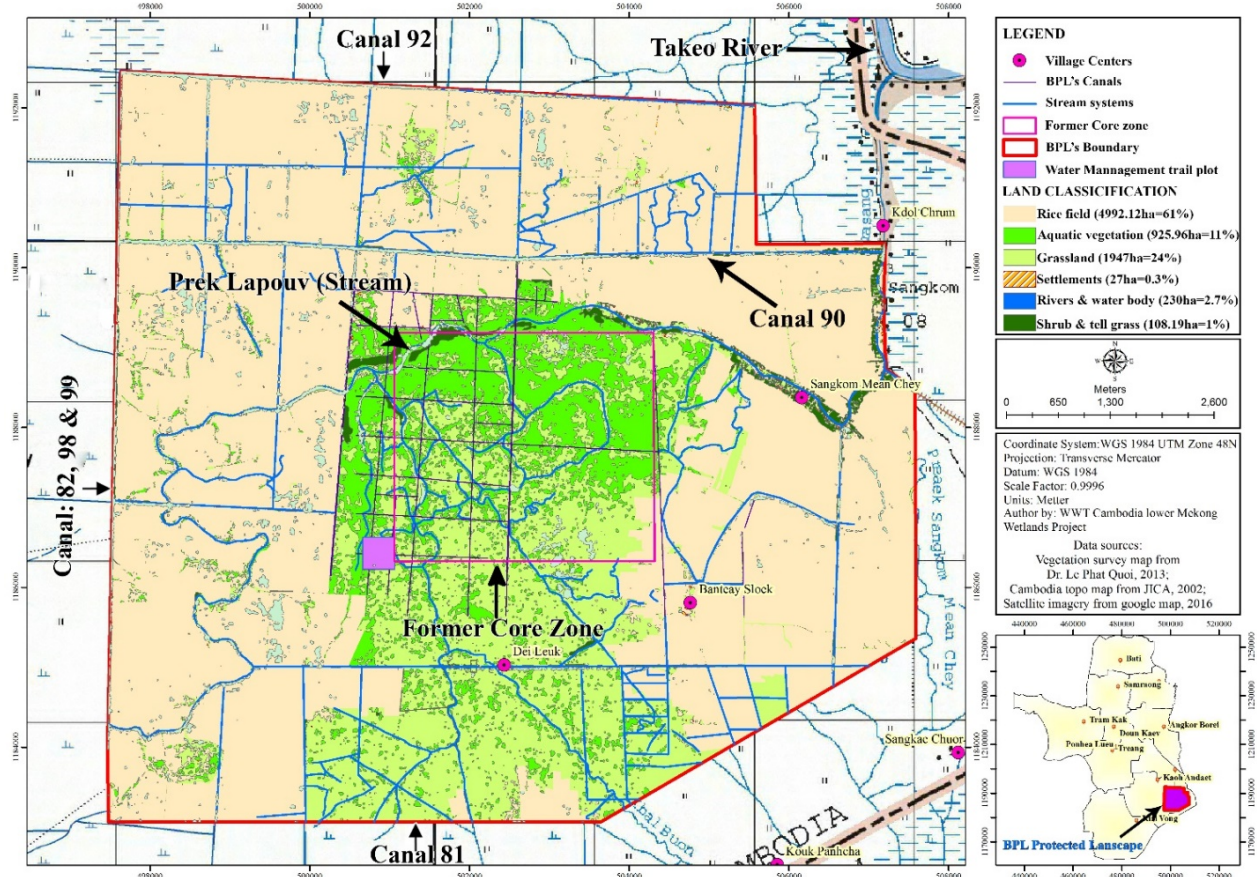


Figure 2: Land classification areas in BPL (Source: Quoi and Thien, 2013 and Google satellite imagery, 2016)

The proposed fishery platform will be located next to the village of Dei Leuk, the southern-most village within the protected landscape show on Figure 2. This is an established small village of 30 households. An area of barren land at the eastern edge of the village has been allocated by the Village Chief for the fisheries platform.

- Approach:** The project intends to erect a wooden patrolling platform in the south of BPL Protected Landscape to complement to main ranger station already located in the northern section of the Protected Landscape. This new platform will act as a base for community association ranger groups for patrolling and the monitoring of human use of BPL. This will enhance the ability of community associations to identify any unsustainable utilization falling outside of the community-agreed natural resource management rules and regulations. The project will employ experienced local contractors to complete the work. The platform will be made entirely from wood and therefore no un-removable materials will be used within the Protected Landscape. The location of the platform is proposed to be

a small plot of land set-aside by the community of Dei Leuk. Villagers of Dei Leuk are members of the Community Fishery association and have allocated land after a broader CFi request to enhance CFi capacity to monitor illegal use. The location of the platform in relation to Dei Leuk village is shown in Figure 3. The dimensions of the site are likely to be 10m x 10m across and 12m high. There will be a small slightly slanted flat roof as protection from the elements.

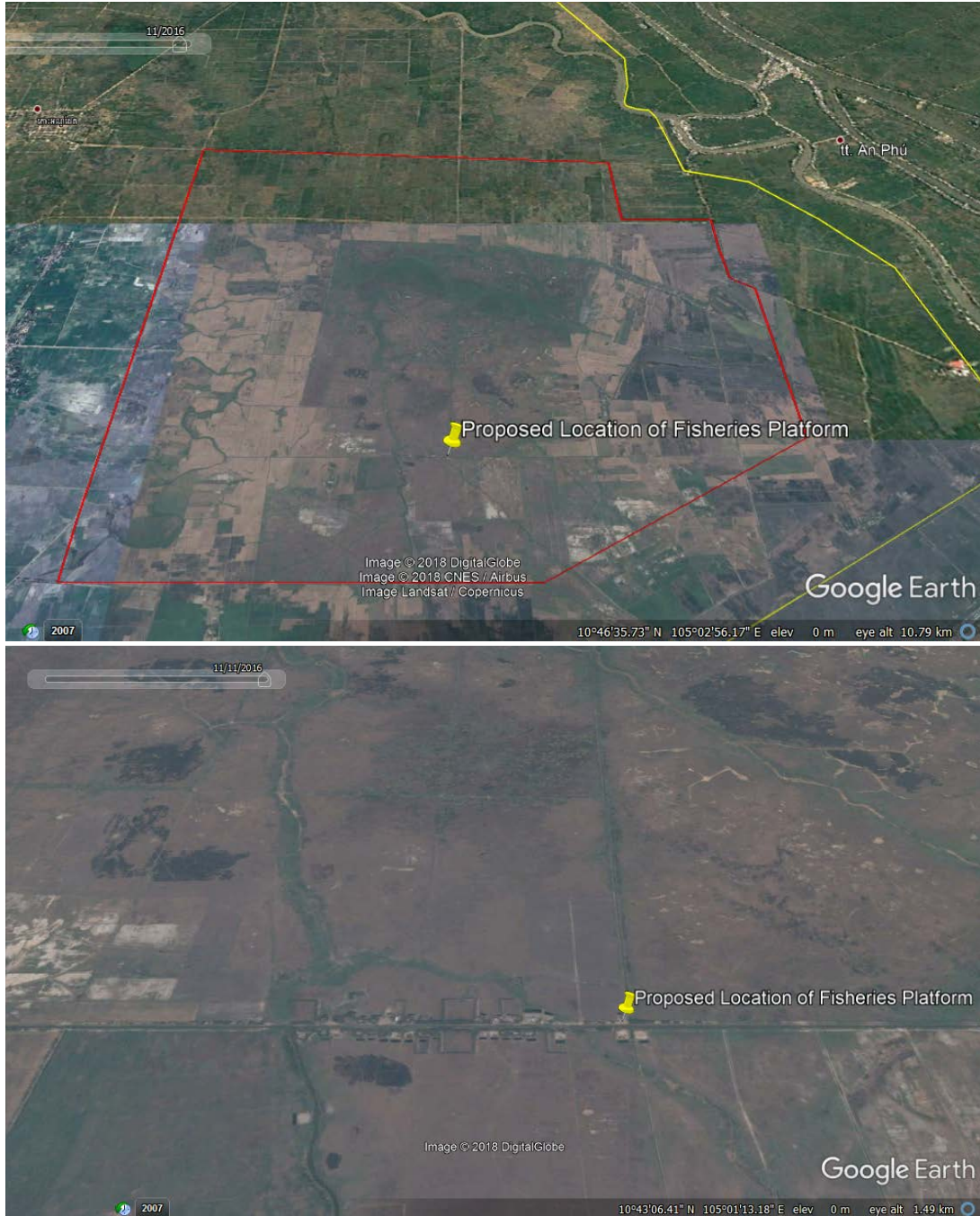


Figure 3: Two maps to pinpoint the location of the proposed Fisheries Patrolling platform at BPL (top - location of platform within the red boundary of BPL; bottom - location of platform adjacent to Dei Leuk village).

11. **Anticipated impact:** The project partnership has undertaken habitat and vegetation assessments at the site, and has over eight years of biodiversity monitoring data. The platform will be situated on the edge of an existing settlement which is generally avoided by species that WWT and Birdlife have been monitoring. Although our monitoring data is biased towards avifauna, we have no evidence to suggest that other threatened biodiversity will be present in this section of land close to Dei Leuk. Our project team regularly visit the village as part of general liaison and also as this village has been part of a Buffalo Bank grazing trial, where villagers are given part ownership for a herd of buffalo on the condition that they coordinate grazing in areas with tall invasive species. This is part of our wider habitat regeneration plan for the Protected Landscape. These regular visits to the site have allowed the project to build up strong relationships with the community. A meeting with village members prior to this EIA raised no additional social concerns about the platform and did not give any reason for project partners to believe that the erection of a platform at the proposed site would have additional environmental impact.
12. **Mitigation measures:** The platform will be built on stilts, creating as little disturbance to the ground as possible. All building materials will be timber so the platform can be removed with little lasting impact if required in the future. The project's biodiversity monitoring team will be regularly using the platform and will continue to record biodiversity use in the surrounding area. Building will be completed during the dry season, the months when the Vulnerable sarus crane is not present at the site. Building work is scheduled to be completed within a two week period. Building materials will be easily transported to the site of construction by boat, leaving from Koh Andet village and traveling along main arterial canals direct to Dei Leuk.
13. **Actions to ensure health and safety:** Experienced local contractors will be used for this building work. A similar platform was built for another community fishery project in the region, and the same builder will be approached for the contract. As part of our contract with the builders, they must comply with national laws and regulations. All waste will be removed from the site by the contractors. The Dei Leuk Village Head will supervise all building work and be charged with ensuring all waste is removed.
14. **Monitoring and Evaluation:** Biodiversity monitoring teams will use the patrolling platform alongside the fisheries patrolling groups. These teams are charged with monitoring biodiversity use of the Protected Landscape, and all records taken from this location will be noted to assess the efficacy of the platform in monitoring human use and biodiversity. Both fisheries patrolling groups and biodiversity monitoring teams will be recording their use of the patrolling station.
15. **Permission of the landowner:** The proposed building will be within a Ministry of Environment Protected Landscape. This is state owned land and there will be a requirement to receive permission from General Department of Administration for Nature Conservation and Protection (GDANCP). The project has an MoU in place with the MoE to support the conservation of BPL and this initiative was created at the request of Community Fisheries groups alongside the Department of Freshwater Wetland Conservation of the MoE. Securing permission from GDANCP is not anticipated to be a problem for the building of this platform. Although formally state owned land, the village of Dei Leuk has inputted to this EIA and have independently allocated land for the platform. Dei Leuk village is actively engaged with our work to protect the ecosystem services provided by BPL.

16. **Consultation:** The Department of Freshwater Wetland Conservation of the Ministry of Environment has requested this project work alongside the Kampong Krasang Community Fishery, which was legally established in 2014. The rules and regulations for sustainable fishing within BPL are being determined through a zonation consultation between the management authority (Ministry of Environment), elected local community officials, existing resource user groups, and the NGO partners involved in the conservation and sustainable management of BPL. This zonation is currently underway and will be completed in 2019. The proposed patrolling platform has been included within these consultations from the beginning. Since BPL was transferred from the Ministry of Agriculture, Forestry and Fisheries to the MoE in 2016, the area of the Kampong Krasang CFi within the Protected Landscape has no official legal status, as CFis cannot exist within MoE Protected Landscapes. They must instead be converted to Community-use zones within the Protected Landscape, and WWT have been working with communities to ensure this transition is smooth and does not result in a loss of fishing rights for local people. This transition is integrated into the zonation scheme, and something that WWT is ensuring goes through correct due process. Zoning consultations are being completed at all villages in and around the Protected Landscape.
17. **Disclosure:** This safeguarding document will become an official document within the zonation process and will be shared at the Annual Liaison Panel meeting in early 2019. This will take place before any building work has begun. The Liaison Panel meetings have representatives from all villages in and around the Protected Landscape.
18. **Grievance mechanism:** The projects Grievance Mechanism will be shared with all potentially affected parties at the Annual Liaison Panel meeting before any building work has begun. The information will also be kept on Community Information Points around BPL. These points were previously created by the project in all project villages.

This grievance mechanism will include the following elements in the local Khmer language:

- Email and telephone contact information for WWT in Cambodia
- Email and telephone contact information for the CEPF Regional Implementation Team.
- Email and telephone contact information for the local World Bank office.
- The email of the CEPF Executive Director: cepfexecutive@conservation.org
- A statement describing how you will inform stakeholders of the objectives of the project and the existence of the grievance mechanism (e.g., posters, signboards, public notices, public announcements, use of local languages).
- the following text translated into Khmer... “We will share all grievances – and a proposed response – with the Regional Implementation Team and the CEPF Grant Director within 15 days. If the claimant is not satisfied following the response, they may submit the grievance directly to the CEPF Executive Director at cepfexecutive@conservation.org or by surface mail. If the claimant is not satisfied with the response from the CEPF Executive Director, they may submit the grievance to the World Bank at the local World Bank office.”