

**Environmental Impact Assessment
and
Environmental Management Plan**

9 April 2021

CEPF Grant 111899

Grantee

*Conserve critically endangered species in Cambodia through national coordination
and research*

Cambodia

Grant Summary

1. Grantee organization.

NatureLife Cambodia

2. Grant title.

Conserve critically endangered species in Cambodia through national coordination and research

3. Grant number.

111899

4. Grant amount (US dollars).

233000

5. Proposed dates of grant.

July 2021- June 2024

6. Countries or territories where project will be undertaken.

Cambodia

7. Summary of the project.

This project focuses on sustaining long-term conservation programmes for the five Critically Endangered bird species in Cambodia, namely, Giant Ibis (*Thaumatibis gigantea*), White-shouldered Ibis (*Pseudibis davisoni*), Red-headed Vulture (*Sarcogyps calvus*), White-Rumped vulture (*Gyps bengalensis*), and Slender-billed Vulture (*Gyps tenuirostris*). In parallel, this project will also help build the internal capacity of NatureLife as a local focal NGO and two national working groups with strong technical capacity and knowledge to coordinate the species conservation at the national/regional level.

This project will address the major challenge faced by the critically endangered ibises' conservation, which is the fact that the population surveys remain limited in frequency and area of coverage so that the knowledge on breeding success and mortality because nest searches and monitoring efforts are inadequate. Through this project, NatureLife will conduct field research in Lomphat Wildlife Sanctuary (i.e. surveys, nest searching, and monitoring) to understand the population status and distribution population, providing critical data to inform evidence-based actions to protect the ibises. In addition, this project will also implement trapaeng (seasonal wetland) restoration in Lomphat to provide vital habitats for wildlife, including ibises.

This project will address the increase of poisoning cases threatening the vulture population nationwide through the Cambodia Vulture Working Group (CVWG). As the facilitator in CVWG, NatureLife will work with all members to strengthen the community and civil society networks to monitor, report and address wildlife poisoning and other wildlife crimes. NatureLife will also lead the coordination work to implement national public awareness events on wildlife poisoning, along with other CVWG members as well as further advocate enforcement of the national ban on use of the veterinary drug diclofenac. Based on the success of CVWG's working model, through this project NatureLife will also take the lead in

establishing the Cambodian Ibis Working Group with the priority to develop a joint Action Plan to address the key threats to ibises nationwide.

Lastly, NatureLife will set up a cost-effective mechanism (i.e. announcements through BirdLife International's vast global network and the local expat community network) to recruit experienced individuals (e.g. retired expats and part-time volunteers) to match the training needs of both working groups' members, which can be afforded by their financial capacity as local institutions.

8. Date of preparation of this document.

9 April 2021

9. **Status of area to be impacted:** This section should describe the applicant's understanding of the site.

Lomphat Wildlife Sanctuary is dominated by dry deciduous forest (DDF) and followed by semi- evergreen and evergreen forest, grassland and traditional crops (PRCF, 2008). It has a total area of 250,000 hectares extending on Rattanakiri province land, accounting for about 80% (20% of the economic land concessions) and Monduliri province about 20% (one-fifth) and borders with Stung Treng province to the northwest, Monduliri province in the south. It is bordered on the east by Oyadaw National Park and on the southeastern with Srepok wildlife sanctuary. There are at least 26 villages (2743 households and 13421 people) located near or inside Lomphat where 10 of the villages are located inside the Sanctuary.

Lomphat landscape is a home to many globally endangered and critically endangered birds and mammals including Banteng (*Bos javanicus*)(EN), gaur (*Bos gaurus*)(VU), wild dogs (*Cuon alpinus*)(EN), bears (*Ursus thibetanus*)(VU), leopards (*Panthera pardus*)(VU), Eld's deer (*Rucervus eldii*)(EN), sambar deer (*Rusa unicolor*)(VU) and five critically endangered bird species including Giant Ibis (*Thaumatibis gigantea*)(CR), White-shouldered Ibis (*Pseudibis davisoni*)(CR), Sarus crane (*Grus antigone*)(VU), Black-necked stork (*Ephippiorhynchus asiaticus*)(NT), and Lesser adjutant (*Leptoptilos javanicus*)(VU). Lomphat, especially, is known as the one of the few most important habitats for both Critically Endangered Ibis species in Cambodia.

10. **Approach:** This section will describe proposed actions during the project. Specifically, what do you intend to do and how will you do it?

The action proposed by this project that can potentially affect the environment is trapaeng restoration. This project intends to restore at least 10 trapaengs in Lomphat landscape in collaboration with local communities.

The approach that NatureLife will use to restore the trapaengs in Lomphat will be largely based on the trapaeng restoration program implemented in Siem Pang Wildlife Sanctuary by BirdLife International. The program has proven its success as it has already worked with nearby villages in Siem Pang for five years to restore trapeangs and to date 28 trapaengs have been deepened. For this project, NatureLife will adapt the protocol established by BirdLife in Siem Pang in manually restoring the trapaengs in Lomphat. This method is chosen because manual trapaeng restoration has proven its advantages of being quicker than other methods such as using buffaloes as well as it provides the opportunity for the projects to engage local communities, which offers additional household income for participants and may increase environmental conservation awareness amongst communities.

Specifically, before commencing entire process, NatureLife will review and improve the trapaeng restoration protocol that has been implemented successfully in Siem Pang Wildlife Sanctuary. 10 important and suitable trapaengs will also be identified and selected based on existing data, i.e. trapaeng used by both Ibis and other bird species. As the initial research process is finished, NatureLife will inform and request

approval from the Lomphat Management team to conduct the restoration on the ground. Then NatureLife will meet with the commune authority and villagers to obtain support for this restoration action. Then, NatureLife will facilitate in village meeting(s) to brief the villagers and request their participation. The project team will use locally hired paid labors and recruit local people on a voluntary basis as the main labor force for restoring the trapaengs. When participants are selected, then groups are formed with an estimation of one group of twenty villagers can deepen a trapaeng in five days. Villagers will be trained on the protocol of trapaeng restoration before they start working in the field.

The manual trapaeng restoration will be implemented on the ground between January and February as the soil is still soft and can be dug more efficiently. The teams will then start digging the soil with shovels until the depth of the trapaeng is deepened to how it is planned. During the entire process, the digging will be as wildlife friendly as possible and the soil being dug from trapaeng will be kept at the edge of trapaeng and smoothed to ensure disturbance to the surroundings is kept at the minimal.

11. **Anticipated impact:** this section will describe the impact and how this impact has been determined.

The potential and expected positive impacts that can be brought about by trapaeng restoration includes longer water retention in the trapaengs which provides increased food and water sources for wildlife, especially during the dry season. This also especially benefits the Critically Endangered ibis species because as they can find food with high protein such as fish and frogs in the trapaengs. These restored trapaengs will also serve an important role in persevering the integrity of the dry forest ecosystem in Lomphat during the dry season, benefiting other animals and creating microhabitats in and around the trapaengs.

While trapaeng restoration has proven to be beneficial to wildlife, some potential negative impacts include increased human disturbance to the trapaengs during and after restoration. For example, during the restoration, the workers may leave human footprint behind, i.e. trash, especially plastic waste. After the trapaengs are restored, it has been suggested by some studies that restored trapaengs may be more targeted for illegal hunting or fishing (Gray et al. 2015). Other studies have also suggested that trapaeng restoration may cause negative impacts to some wildlife; for example, a study in Siem Pang suggested that resources for White-shouldered Ibis may decrease due to increased retaining water in trapaengs throughout the dry-season as the ibis requires exposed substrates in dried trapaengs (Wright et al. 2013).

Citation:

Gray, T.N.E., W.J. McShea, A. Koehncke, P. Sovanna & M. Wright (2015). Artificial deepening of seasonal waterholes in eastern Cambodia: impact on water retention and use by large ungulates and water birds. *Journal of Threatened Taxa* 7(6): 7189-7195; <http://dx.doi.org/10.11609/JoTT.o3935.7189-95>

Wright, H.L., N.J. Collar, I.R. Lake & P.M. Dolman (2013). Amphibian concentrations in desiccating mud may determine the breeding season of the White-shouldered Ibis *Pseudibis davisoni*. *Auk* 130: 774-783

12. **Mitigation measures:** Describe measures that will be taken to mitigate negative impacts.

To mitigate the potential negative impact during the restoration where workers may leave human footprint behind, i.e. trash, especially plastic waste, the workers will be asked to keep their plastic waste and take back to village after finish digging every day. To ensure the soil take out from trapaengs will not block the water sources or cover on bird foraging habitat, the worker will be asked to take to those soil to keep at assigned places. The project officers should ideally remain on site throughout the activity. At the end of the restoration, NatureLife will ensure that the villagers remove all non-biodegradable wastes.

To mitigate the potential negative impact where the restored trapaengs may be more targeted for illegal hunting or fishing, villagers will be asked not to involve in wildlife hunting and perform action that lead to wildlife disturbance. To do so, NatureLife will have the participating villagers in restoration to sign a

contract before commencing the work, witnessed by the commune chief and village chief. In the contract, participating villagers will agree to recognize the protected area and commit to conservation of the area by not engaging in illegal fishing or hunting or land encroachment in the designated areas for protection, including in and around the restored trapaengs.

To mitigate the potential risk that resources for White-shouldered Ibis may decrease due to increased retaining water in trapaengs throughout the dry-season, NatureLife is looking to only restore a relatively small number of trapaengs (10 out of ~250 of Trapaengs in total in Lomphat). As such, the ibis may still be able to utilize other non-artificially modified trapaeng habitats to overcome resource depletion for the breeding season.

13. **Actions to ensure health and safety:** Describe actions that will be taken to ensure the health and safety of workers as well as the site. Include a description of waste management and/or disposal.

- First aid kits will provide to workers in the field.
- NatureLife will ensure that workers have access to food and water and shade.
- Training will be provided to workers so that they will know how to safely restore the trapaengs. The excavation plan and health and safety protocol will be explained clearly to the workers before the work starts.
- Soil take from trapaeng will be asked to keep in assigned place avoid impact on water sources and foraging habitat of water birds
- The workers will be asked to keep their plastic waste and take back to village after finish digging every day. The project officers should ideally remain on site throughout the activity. At the end of the restoration, NatureLife will ensure that the workers remove all non-biodegradable wastes.

14. **Monitoring and Evaluation:** This section aims to outline what steps the proponent will take to monitor and evaluate the impact of the proposed intervention.

NatureLife will conduct monitoring and evaluation to the impact of the trapaeng restoration throughout the project. Such monitoring activities will be conducted bi-weekly during the dry season from December to April. The field monitoring team will focus on monitoring the deepened trapaengs and ecologically important trapaengs only (suggested by previous monitoring efforts). After field data are collected, NatureLife will analyze to find out how the trapaengs are impacted, including if any trapaengs are affected sedimentation and/or covered by dense vegetation and hence evaluate its effectiveness in increasing in the ecological integrity in Lomphat. To achieve that, NatureLife's team will conduct a range of field activities such as interviews of villagers, regular biodiversity monitoring, measurement of environmental parameters of the restored trapaengs.

15. **Permission of the landowner:** Please verify permission of the landowner to undertake actions on the site, and verify that you have the required permits to undertake this work.

Lomphat Wildlife Sanctuary is state property, the project will secure permission from the Lomphat Wildlife Sanctuary Director before implementing the project activities.

16. **Consultation:** This section aims to outline the range of informed consultations that the grantee has had both with experts to optimize the potential for success, and with stakeholders, particularly local communities, who are potentially affected by the proposed actions. Include dates of consultations.

NatureLife has consulted with the government about this project on several occasions. For example, from 28-30 September 2020, NatureLife has consulted with local authorities (including rangers) and focal points of the Rattanakiri and Mondulkiri Provincial Department of Environment about the identified threats and the proposed solutions through the activities planned in this project, including trapaeng restoration. Also,

21 January 2021, NatureLife has consulted with the local communities in the Rattanakiri and Modulkiri province in which this project will be implemented in. The activities of trapaeng restoration and the potential impact will be explained to the communities in November 2021. NatureLife has also consulted with BirdLife program in Q1 2021 and based on the feedback and technical input from BirdLife (who has successfully carried out trapaeng restoration program in Siem Pang Wildlife Sanctuary), NatureLife has been decided to replicate the trapaeng restoration by adapting the protocol BirdLife used in Siem Pang.

17. **Disclosure:** CEPF requires that safeguard documents are disclosed to affected local communities and stakeholders prior to project implementation. Please describe efforts to disclose this impact assessment and environmental management plan and provide dates.

Within the first quarter of the project, this impact assessment and environmental management document will be given to the stakeholders of this project, including the district and local authorities and relevant communities.

18. **Grievance mechanism:** All projects that trigger a safeguard must provide local communities and other relevant stakeholders with a means to raise a grievance with the grantee, the relevant Regional Implementation Team or the CEPF Secretariat.

This project will set up a grievance mechanism in order to receive, review and address concerns and complaints raised by communities and authorities affected by this project. Any affected person or group has a right to raise a grievance and the project is obligated to take responsibility to respond within a reasonable time period.

Should there be a need for a formal complaint mechanism, the following will apply:

The project coordinator of NatureLife will be the first contact point for grievances. This person will be present at local meetings to enable face to face communications.

Email: adm@naturelifecambodia.org

Phnom Penh Office Telephone: +855 23 993631

Lomphat Office Telephone: +855 99 551 156

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.

CEPF Regional Implementation Team

Email: CEPF-Indoburma@iucn.org

Telephone: +66 2 662 4029

CEPF Executive Director:

Email: cepfexecutive@conservation.org

All the above information about the grievance mechanism will be made available to local communities and local authorities on signboards and public notes in Khmer (the local language of Cambodia)