



Terms of Reference: Agricultural/Livestock Economist (Consultant)

Title: Consultancy for duck farming profiles and economic assessment of farming practices around Boueng Sne wetland, WCS Cambodia Program

Position: Agricultural/Livestock Economist (Consultant)

Position Type: Part-time, fixed term consultancy (3 months)

Reports to: WCS Cambodia Country Director and WCS Regional Technical Advisor (Health Program)

Location: Phnom Penh, Cambodia with travel to Boueng Sne, Prey Veng province

This position is open to national and international candidates

1. Background

The Wildlife Conservation Society (WCS) is a US nonprofit, tax-exempt, private organization established in 1895 that saves wildlife and wild places by understanding critical issues, crafting science-based solutions, and taking conservation actions that benefit nature and humanity.

WCS has been working in partnership with the Royal Government of Cambodia since 1999, providing technical advice and support for the conservation of key habitats and species across the country. Within our WCS Wildlife Health Program, our collaborative projects with the Ministry of Environment and Forestry Administration focus on wildlife health surveillance, livelihoods, capacity building, and preventing spillover at the source, which are funded by a wide range of bilateral, multi-lateral and foundation donors.

2. Context

The Wildlife Conservation Society has received financing from the UK Government through their Biodiversity Challenge Funds, and intends to use part of the funds thereof for payments under the following project under the Darwin Initiative: *Risk reduction of highly pathogenic avian influenza in Cambodia's wetlands.*

Cambodia hosts some of the most important global priority regions for biodiversity conservation and supports some of the most threatened waterbird species in the world. Its forests and wetlands provide a natural barrier against the emergence of future zoonotic pandemics. However, current deforestation rates, livestock encroachment, and wildlife trade trends make Cambodia and the region a global hot-spot most vulnerable to pathogen spillover. In 2021, 2022, and 2023, Cambodia experienced multiple mass mortalities of wild waterbirds due to Highly Pathogenic Avian Influenza (HPAI) in areas with substantial domestic duck farming. At the same time, duck farmers experience mass losses among their flocks, presumably due to outbreaks of HPAI and/or other diseases. We aim to create a scalable model for Cambodia's wetlands via a network of informed and skilled communities taking collective action to reduce the risk of disease spillover at the poultry-waterbird interface while protecting both wild bird colonies and farmer livelihoods.

The site of interest is Boueng Sne (also known as Boueng Pring), Prey Veng Province which hosts multiple waterbird colonies as well as several surrounding domestic duck farms, and is a site with recurring HPAI outbreaks.

3. Objective of the Assignment

The purpose of this analysis is to comprehensively understand the domestic duck farming system(s) and assess for long-term financial gains by implementing new farming practices to provide incentive for farmers to change current farming methods. By improving farm biosecurity and adjusting other practices we aim to mitigate the risk of pathogen spillover between domestic duck flocks and wild bird colonies.

4. Approach of the Assignment

This assignment is undertaken by a three-member team of WCS Cambodia's Wildlife Health staff under the supervision of WCS's Regional Technical Advisor (Health Program) along with the consultant – (herein known as “the team”). Travel to the field site from Phnom Penh will be organized by WCS as needed. Communication with government stakeholders, budgets, and translation will be led by WCS.

The approach of the assignment may be adapted according to discussion among the team.

5. Key Tasks

- **Undertake a desktop review of the most recent reports** (e.g. FAO) and existing literature documenting the systems/dynamics/practices in domestic duck farming in Cambodia
- **Organize and review relevant spatial and survey data generated by WCS.** WCS will provide relevant spatial data and maps, including study area boundaries, farm/flock locations mapped to date, and wild bird outbreak locations. Initial survey responses collected by WCS will also be provided. The consultant will review the provided data prior to constructing their workplan.
- **Visit field site and gather data required from 5 to 10 pre-selected small- to medium-holder farms to generate:**
 - **A profile of duck farming around Boueng Sne,** including assessments of: buyers/offtakes/demand; ownership patterns (including gender roles) at each selected farm; movement of poultry in/out of the site while tracing back to original suppliers. Travel outside of the immediate field location to confirm duck supply locations may be required.
 - **A cost-benefit assessment completed for each selected farm,** evaluating cost of current farming methods and loss projections due to disease outbreak events compared to the cost of potential alternative farming methods with increased biosecurity and improved husbandry.
 - **Entry points identified to improve cost efficiency of farming practices.** The consultant shall advise WCS on practical recommendations to be provided to farmers. These may include specific husbandry, housing, feed, biosecurity, relocation, or other changes specific to each farm/flock.
 - **Determine actionable steps for implementation of the recommendations (above)** in the form of a roadmap
- Cooperate with WCS Cambodia and government partners throughout the contract period, with ad-hoc meetings as needed to ensure smooth coordination.

6. Key Deliverables and timeline

Deliverable	Type	Estimated Submission Date
A shared folder of reports and literature collected during the initial desktop review	Folder with soft copies	October 1, 2023
Agreed approach, methodology, and workplan including any questionnaires prior to fieldwork	Workplan and questionnaires	October 15, 2023
Establishing an expected Table of Contents for the final report through discussions with WCS Cambodia Team	Report outline	October 15, 2023
Presentation of initial findings and draft report for review by WCS	PowerPoint Presentation & report draft	November 20, 2023
Final report and recommendations (in English)	Final report	December 15, 2023

7. Payment Schedule

30% Upon Signing

50% Upon submission of draft report to WCS and presentation of initial findings

20% Upon final approval from WCS of final draft of the report and recommendations

8. Applicant's profile

The consultant must conform to the following qualifications:

- Education: Minimum of master level in field relevant to agriculture/livestock economics.
- Professional experience: At least 5 years of experience in agriculture/livestock economics in developing countries, preferably in low-resource settings with primarily small- to medium-holder farms.
- Experience in the region is a plus.
- Knowledge of animal health and disease is preferred.
- English proficiency required.
- Excellent interpersonal skills and cooperative attitude.
- Good ability to meet and multi-task deadlines.
- Dedication to conservation and sustainable development.

9. Application process

Interested candidates should apply by emailing:

- a CV and cover letter that address the criteria outlined in the qualifications and experience section, links/examples that demonstrate your skills.
- proposed methodology and/or workplan to complete the assessments and report.
- your expected rate for the above listed deliverables.

to: cambodiahr@wcs.org, latest by **September 03, 2023**. Please include the Position Title **“Application for Consultancy for duck farming profiles and economic assessment of farming practices around Boueng Sne wetland”** in the subject line of your email.

Please note that only short-listed candidates will be contacted.