

Terms of Reference

Consultant on Fish stock and fish biomass size spectra assessment for Lang Sen Wetland Reserve

1. Background

Lang Sen Wetland Reserve covers an area of 5,030 ha surrounding by Vinh Loi, Vinh Dai and Vinh Chau A Communes, Tan Hung district, Long An province, in a low floodplain called the Plain of Reeds (Fig.1).

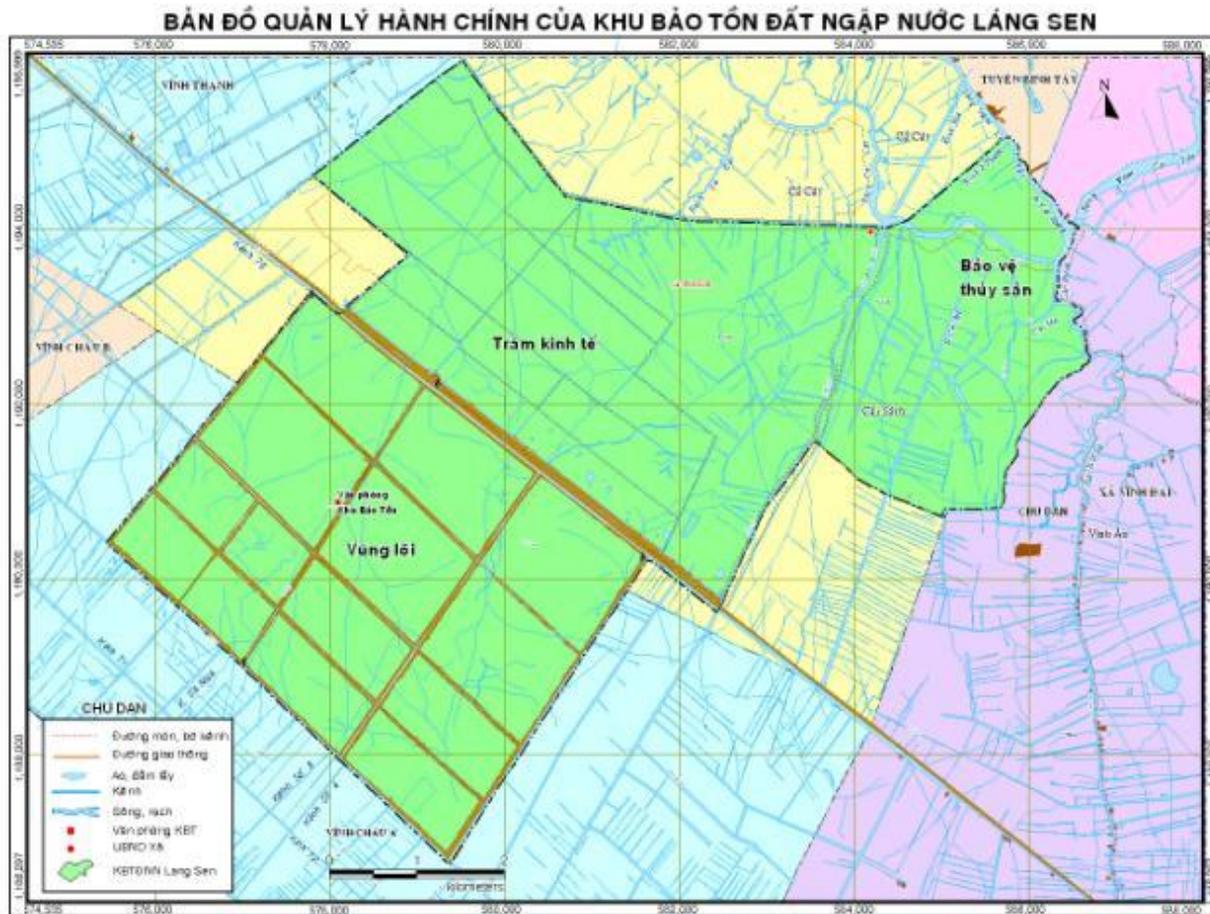


Figure 1: Map of Lang Sen Wetland Reserve – location and administrative management

A great diversity of geomorphological conditions in the area result in a high diversity of wetland ecosystems: *marsh, seasonally inundated grassland, melaleuca forest, flooded forest, riverine* etc. These ecosystems harbor a rich diversity of plants and animals. Preliminary survey results show 156 species of plants belonging to 60 families; 149 species of vertebrates in 46 families, including 13 species in Vietnam's Red Book (Le Phat Quoi et al, 2006). 86 species of natural fish belong to 9 families (Bui, 2008). Lang Sen becomes the hot spot of wetland conservation area together with Tram Chim which contributes to create the remnant natural wetland called Plain of Reed in Mekong Delta.

To ensure the sustainable management the wetland area and improve ecosystem cycles, WWF and Lang Sen Reserve are implementing the project “*Avoidance of maladaptation through climate smart agriculture and restoration of Lang Sen Wetlands in Vietnam*”. A part of these project objectives is restoration semi-natural wetland habitat by several restoring techniques. Several indicators will be identified with suitable protocols such as water quality, vegetation, water birds, and natural fish. Indeed, Fish are an important component of aquatic ecosystems, especially in wetland area, through their role as consumers of other organisms and they can have a significant influence on the structure and function of these ecosystems. Because of this, adverse effects on fish can have adverse flow-on effects on other aquatic organisms even if they are not directly affected by those changes in water quality.

Therefore, we are seeking a consultant(s) to assess natural fish stock and fish biomass-size spectra of 3 – 5 selected fish species, which will indicate stock recovery and the supply of the target group with animal protein secured. As consequence, the results also support the Lang Sen WR with both water management and wetland conservation.

This term of reference addresses the roles and responsibilities of the consultant(s) who are required to carry out the above mentioned tasks

2. Objectives

The overall objective of the ToR is to assess fish stock and fish biomass size spectra for Lang Sen Wetland Reserve.

Specific objectives of this task are:

- To collaborate with WWF Staff and Lang Sen WR staff to select sampling stations (7-8 stations) and fish species (3 – 5 species) for the study.
- To provide scientific methods for sampling, reviewing, calculating, ... and assessing the fish stock and fish biomass size spectra for Lang Sen Wetland Reserve.
- To carry out field work and desk study for fish stock and fish biomass size spectra assessment in dry and rainy seasons
- To deliver scientific reports of the assessment (separately for dry season, rainy season and Final report - 3 reports).to WWFVN and Lang Sen WR.

3. Location

Lang Sen Wetland Reserve, Tan Hung district, Long An province.

III-Methodologies

- Literature Review.
- Field works and desk study

IV. Deliverable outputs of the activities

- Report on Fish stock and fish biomass size spectra assessment for Lang Sen Wetland Reserve – Dry season
- Report on Fish stock and fish biomass size spectra assessment for Lang Sen Wetland Reserve – Rainy season
- Final Report on Fish stock and fish biomass size spectra assessment for Lang Sen Wetland Reserve

V. Requirement of the consultants

The Consultant/ consultant team is expected to meet the following requirements:

- At least Master degree on fishery, aquatic resources or related to ecological conservation.
- At least 10 years of work experience in aquatic basic inventory, freshwater resources, aquatic ecological conservation.
- Has/have a sound knowledge of biodiversity and natural resources.
- Has/have Good English (writing and speaking)