



UTF/077/ZAM: Technical Assistance to the Zambia Aquaculture Enterprise Development Project (ZAEDP)

Session 3

Checklist 3

Definition of population

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Training Course on Development of an Active Surveillance for Epizootic ulcerative syndrome (EUS) and Tilapia lake virus (TiLV) using the FAO 12-point surveillance checklist (for non –specialist) and its implementation

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Population

- **All individuals of all species susceptible** to the infection in the country/zone/farm
- **Target** population (the population of interests)
- **Study** population (the individuals selected to participate in the study)

Population

- Single or mixed species
- Separation (strata) by species
- Separation (strata) by size and age
- Aquatic animal population are often considered infinite for the purpose of sample size calculation
- Difficulties in access to and visibility of aquaculture fish mean that disease problems may not be noticed immediately
- Collecting of moribund or newly dead fish essential for good surveillance

Definition of population: criteria

- Includes definition of the population of interest
- Includes definition of the targeted population
- Includes definition of the study population (population used for sampling)
 - Inclusion criteria are set and described
 - Exclusion criteria are set and described

Study population should be:

- As defined in the relevant disease chapter of the OIE Code, where exists;
- A subset of target population defined by:
 - Species
 - Time, season or month of year
 - Stage of life cycle
 - Production/management system
 - Location

Epidemiological unit

Group of animals that share approximately the same risk of exposure to disease agent with defined location.

This may be because they share a common aquatic environment, for example, fish in a pond, caged fish in a lake, or because management practices make it likely that a disease agent in one group of animals would quickly spread to other animals, for example, all the ponds on a farm, all the ponds in a village system

Population

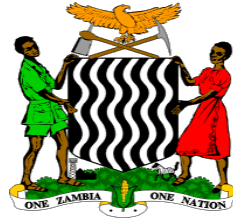
- Proper consideration of population provides authority with the flexibility to design **well- targeted surveillance system**.
- The **target population** to which the surveillance applies is all individuals of all species susceptible to the infection in the country or zone
- Whenever the **study population** (individuals selected to participate in study) is different from the target population, there is a risk that the findings from the study population may not represent the true situation.

Definition of population

<ul style="list-style-type: none">• Includes definition of the population of interest• Includes definition of the targeted population• Includes definition of the study population (population used for sampling)• Inclusion of criteria are set and described• Exclusion of criteria are set and described	<ul style="list-style-type: none">• All susceptible fish species (juvenile and young adults) in river and lakes• Wild fish• All farmed susceptible fish species (number of fish farms/establishments described, if exist)	<ul style="list-style-type: none">• All susceptible fish species (juvenile and young adults) in river and lakes• All farmed susceptible fish species	<ul style="list-style-type: none">• All susceptible fish species (juvenile and young adults) in river and lakes• All farmed susceptible fish species
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Population: practical work

- Whatever the study population used, it is most important **to document it**, to consider how it differs from the target population, to account for any effects.
- Target population for EUS/TiLV in country?
- Describe farming system, farm registration data, approval of farms, if exist
- Wild fish population



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Thank you for your attention