TECHNICAL GUIDE FOR SUSTAINABLE PRACTICES ON **SHRIMP HATCHERIES:**

THE STRUCTURE

The Guide is Structured in 10 sections

Legal requirements

Established by:

- The National legislation
- Ministry of Environment, Water and Ecological Transition of Ecuador,
- Undersecretary of Quality and Safety
- Undersecretary of Aquaculture.

Hatchery installation and its infrastructure

• To reduce risks in the hatchery, it is essential that the facilities allow a good distribution of work areas, facilitate correct sanitation, and reduce the risks of cross contamination. More importantly, these facilities must not pose a risk to the environment, providing a proper discharge of their effluents.

Water quality

To ensure the quality of effluents, it is vital that hatcheries have efficient water treatment that meets water quality parameters and policies, or measures aimed at reducing the use of this resource in production.

Sanitation

A good sanitization program is the way to reduce the risks of diseases to the larvae and the personnel who work in the hatchery. Likewise, we will reduce the risk of waste contamination to the environment.

Biosecurity

• It contributes to the identification of risks throughout production, creates a preventive system to have a high level of guarantees for the laboratory, in addition to preventing, eliminating, or reducing risks to avoid the transfer of pathogens.

Energy and Fuel

• The correct use of fuel and efficient use of energy are key factors to ensure that laboratory activities are more sustainable activities over time.

 All inputs and waste generated during larvae production need to be classified according to their danger or the risks they present, so that, according to their characteristics, they are correctly stored, safeguarding the quality of the product, the health and safety of workers, and reducing the risk that they may cause to the environment.

Requirements for the stages of production

 To ensure the traceability and quality of the larva, measures have been considered to implement for all stages of production that the hatchery may have. (Breeders, Maturation and Reproduction, Spawning and hatching of eggs, Larval growth, Harvest).

Environmental responsibility

- To minimize and control the impacts that may occur and that have a direct effect on the quality of water, air, soil or the biodiversity of the area.
- To have efficient use of resources during the process. To have personnel trained in the Guide and the reason for
- these measures, so that through understanding and reasoning they promote their application and compliance.

Social responsibility

- Hatcheries must ensure through its policies that it promotes a good work environment for its employees and that it ensures compliance with all workers' rights.
- In addition to ensuring that their activities do not negatively interfere with the surrounding communities





