

**ORL-EE&P-03****Assessing Water Quality Parameters for Fish Farming in Eastern Nepal: Challenges, Methods and Implications**

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Assessing water quality parameters in Eastern Nepal is an important topic, given the region's diverse hydrological and environmental conditions. Here is a detailed overview of what this assessment might involve, including challenges and considerations specific to the area. Eastern Nepal encompasses a range of geographical features, from the Terai plains to the foothills of the Himalayas. This diversity affects water sources, including rivers, streams, and groundwater. Clean water is vital for public health, agriculture, and local ecosystems. Assessing water quality helps in managing resources and addressing production issues related to aquaculture and fisheries. The method of Assessment includes (i) Field Testing Kits: Portable kits (Multiparameter) for measuring pH, DO, turbidity, and other parameters. (ii) Community Involvement: Training local communities to conduct basic water tests can provide ongoing monitoring and raise awareness. The citizen science empowers individuals' locals to contribute to scientific understanding. The bottom-up approach in people involvement encouraged their engagement. Engagement is the best way. In documenting process the pond-to-pond service and measuring the water quality parameters were made in their presence. The collaborative efforts contribute to make the work happen. We get large data set at the same time with great public participation, cost effect and sustainable as people are motivated without any cost in such type of campaign.

The involvement of huge number of people at a time and incorporated in policy and its quick implementation encouraged to technical resource too in Integrated policy formulation. Importantly the potential community are the fish farmers in the study areas. Though better understanding is limited, they are much more curious. There is a very little knowledge about the water quality parameters. Involving citizen science is very rare in aquaculture and fisheries in Nepal. Public participation has huge scope in sustainability of fisheries and aquaculture sectors. It matters with ethnicity. The diversity of participants is interested ethnically close to these business and sectors. It shows technology bring shift in people perception and adaptation. Community engagement in fish health campaign Provides valuable insights into in the study areas. They are: Jhapa, Morang, Sunsari, Udayapur, Khotang, Sankhuwasabha, Ilam, and Solukhumbu. The challenges in aquaculture and fisheries related campaign are the geographical region and remoteness especially in mountain and hill districts. It reflects that more practical and convenient for problem solving on site is easily accepted by people. If the concern authority timely Correct them to engage in the occupation for sustainable production.

