

Community Participatory Estimation of Fish Biodiversity and an Alternative Trend Analysis

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Abstract The present paper has been the outcome of a rigorous participatory research work to identify the factors attributive to the fast decline of local fish biodiversity in West Bengal. The indigenous fish species are the most important bio-ecological indicators to measure the intensity of changes, in a climate change scenario, disturbing ecological balances of any micro-farming system, both in intrinsic and extrinsic manner. Some local and innovative measuring devices, elicited by the stakeholders themselves, were applied to calculate the FMV and fish landing in different local markets. This would ultimately make the researchers draw conclusion that the factors like chemical loads in agriculture, occupational change of the rural people, destruction of local bodies, indiscriminate use of pesticides in agricultural field and adjoining water bodies are all responsible for ushering a faster decline of these local fish species. The decline of species has been measured in terms of loss of decadal score down the years and declining availability of these fishes across the spatial distribution had been statistically intercepted to get the most expected estimation of species count and the factors contributing to them.

Keywords: Fish bio diversity, climate change, ecology, chemicals, micro-farming system