

Costs and benefits of interventions in aquatic animal disease management: a case study

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Abstract

Over 90% of global aquaculture production comes from the Asia Pacific region. International trade in live aquatic animals and the intensification of aquaculture practices over the past several years have led to emergence and spread of several aquatic animal diseases in the region. At the same time, while the direct and indirect socio-economic consequences of these disease outbreaks is enormous, accurate measures of the economic impacts remains a gap in our knowledge. For instance, a 1991 study by ADB/NACA estimated that 15 developing Asian countries lost about USD 1.36 billion due to aquatic animal diseases. At the global level, the combined estimated losses in production value due to shrimp diseases from eleven countries in Asia and Latin America from 1987 to 1994 was estimated at USD 3.01 billion. However, the losses here typically report direct production losses associated with diseases, and fail to include estimates of the indirect impact on trade and employment, treatment costs, and environmental impact. This presentation will highlight a case study of shrimp disease from India to highlight the costs and benefits of interventions in the management of aquatic animal diseases, based on the experiences of NACA, an intergovernmental organization of 18 member governments in Asia Pacific. Experiences from India from the 10 year long MPEDA/NACA technical cooperation study show that implementation of better management practices (BMPs) through cluster management (group) approach reduces disease related losses and improves economic viability of the farming system and empowers small farmers.