IMAQulate
Newton Fund Aquaculture GRP

Evaluating Costs and Benefits of Prophylactic Health Products (PHPs) and Novel Alternatives on Smallholder Aquaculture Farmers in Asia and Africa

AIMS

- To improve profitability of intensifying smallholder farmers and wider industry reputation:
  - ⇨ **directly** through improved prophylactic health management capacity, and
  - ⇨ **indirectly** through development of standardized assessment procedures and improved regulation of commercial PHPs
- To develop internal capacity to support future research on PHP efficacy, regulation and economic benefit

Project staff interview an intensive shrimp and prawn farmer in Khulna, Bangladesh

APPROACH

Understanding health management practices, markets and usage of prophylactic health product (PHP) use patterns - working closely with farmers, suppliers and producers

Evaluating cost and benefits of commercial probiotic PHPs through farmer field trials

Evaluating novel PHP products using readily-available, natural sources

PRIMARY BENEFICIARIES

- **Small-scale, intensifying farmers:** improving the profitability of farmers through improved knowledge of PHPs and their effectiveness.
- **Regulators and industry:** most trials have been conducted under highly controlled laboratory conditions. Field trials with farmers culturing multiple species under a wide range of environmental conditions will shed light on complex environmental and genetic interactions.

  More informed policy decisions will enhance effective and prudent use and industry reputation.

SCOPE

India

Bangladesh

Kenya

Shrimp (*Litoppenaeus vannamei*)

Shrimp, tilapia sp. and Pangasius (catfish)

Tilapia sp.

BACKGROUND

Rapidly growing demand for seafood products for domestic and export markets is driving intensification of aquaculture sectors still dominated by small-holders in much of Asia and Africa.

Ensuring effective health management has become the single most important challenge for sustainable intensification of the smallholder sector, just as restrictions on antibiotic use are being imposed. Farmers are increasingly dependent on a proliferating range of prophylactic (preventative) products (including pre and probiotics), often of uncertain provenance & efficacy.

An extensive array of PHP products are on offer to aquaculture farmers

The emergent markets for these products lack appropriate regulatory frameworks and the economic burden of unjustified claims is likely to fall most heavily on small-holders.

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For more information and collaboration

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