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RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Economic analysis of alternative snakehead *Channa striata* feed

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The use of low-value small-sized fish (LVSSF) both as aquaculture feedstuff for snakehead and for human consumption in Vietnam and Cambodia could result in demand outstripping supply as human population and aquaculture production grow. Replacing LVSSF for snakehead aquaculture with pelleted feed would reduce the pressure on stocks of LVSSF. This study addresses the economics of this replacement strategy for snakehead culture in Vietnam. Economic engineering methods were used to assess the effects of pelleted feed for low, medium and high-productivity scenarios. The study compared net present values (NPV), internal rates of return (IRR) and differences in NPV between farms using pelleted feed and those using LVSSF. It also included sensitivity analyses that related NPV and IRR to increased snakehead prices. Results demonstrated strong economic incentives for high-productivity farms to use pelleted feed. However, pelleted feed was too expensive for medium- and low-productivity farms. NPVs were more sensitive to reductions in the cost of pelleted feed than to increases in the cost of LVSSF or the cost of capital.

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