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Does small indigenous fish consumption contribute to household nutrition and health? Evidence from rural Bangladesh

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Abstract

Malnutrition is among the top priorities in promoting human development in rural Bangladesh. Fish serves as a crucial source of animal protein globally and stands as the most consumed animal-source food in Bangladesh. Among vast varieties, small indigenous fish species (SIS) are particularly noteworthy for their ability to retain maximum nutrients as they are consumed whole, earning them the status of natural superfoods.

While non-SIS fish accounts for the largest share of fish consumption, SIS consumption is declining. Dietary intake analysis reveals that while non-SIS fish contribute more to energy, protein, and fat intake, SIS provide essential calcium, iron, zinc, and vitamin A. Utilizing a two-year panel study in rural Bangladesh and applying the Ecological Systems Theory framework into the fractional logit models and instrumental variable probit regressions, this paper examines the determinants of SIS consumption and its effects on health.

Results show that SIS consumption is negatively associated with the highest level of education of the household head by 0.71 for SIS consumption and 1.40 for share of SIS consumption respectively. On the other hand, share of SIS in total consumption is positively influenced by participation in social safety net programmes by 0.15 and distance of village from the main road by 0.03 with 5 percent significance level. The impact model shows that a higher share of SIS in total fish consumption significantly reduces the incidence of illness. We call for awareness programmes targeting a wider range of beneficiaries including the poor and the better-off, to promote SIS consumption.

Keywords: Health, intra-household, malnutrition, micronutrition, SIS consumption