

Knowledge, perception and constraints of the food fish farmers and traders on Rice-Fish Integration in Kurunegala District

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Rice-Fish Integration (RFI) is a sustainable farming system that can improve food security and farmer income. Despite its benefits, adoption in Sri Lanka remains low due to limited awareness, resources, and market access. This study explored the knowledge, perceptions, and challenges faced by farmers and traders to identify opportunities for promoting RFI in Kurunegala District. This study surveyed 52 registered food fish farmers and 81 traders in Kurunegala District using pre-tested questionnaires. Data were collected through a physical meeting and analyzed using descriptive statistics and Likert-scale analysis in SPSS. Participants were selected from official registries to represent key farming and trading divisions in the district. A survey of food fish farmers in Kurunegala revealed that the majority (34.6%) were aged 36–45 years, with 75% male and 88.5% married. Most (73.1%) had completed secondary education, and 57.7% had 1–5 years of fish farming experience. Farming was primarily a supplemental income (78.8%), with 50% operating medium-scale farms (0.5–2 acres). Tilapia was cultivated by 100% of farmers, marketed mainly through wholesale (57.7%). Knowledge of integrated rice-fish farming (IRFF) was moderate for 94.2% of farmers, with key awareness of species suitability (M.S.=3.76) and benefits like fertility enhancement (M.S.=3.34). Farmers held 100% positive perceptions towards IRFF, particularly recognizing water efficiency (M.S.=3.46) and waste recycling (M.S.=3.44). However, 55.8% were unwilling to adopt IRFF, citing critical constraints such as insufficient infrastructure (M.S.=4.0), lack of awareness (M.S.=3.92), and labour shortages (M.S.=3.78). Potential benefits identified included increased income (M.S.=3.90) and environmental benefits (M.S.=3.34). Among 81 fish traders, 77.8% had never heard of IRFF, and 82.7% were unfamiliar with rice-field fish products. While 51.9% were somewhat willing to include IRFF products in their business, concerns over supply, marketing, and awareness remain. These findings highlight the need for improved infrastructure, targeted education, and market development to enhance the adoption and sustainability of integrated rice-fish farming in Kurunegala District.

Keywords: *Constraints, Integrated farming, Knowledge, Perceptions, Rice-Fish Integration*