

Keywords: *plastic lunch boxes, dry food wrappings, eco-friendly alternatives, market availability, recyclable number*

Poster Sessions

(50)

Assessing Local Fishing Communities' Willingness to Pay for Reducing Faecal and Oil Pollution in the Negombo Lagoon

Dissanayake, T.G.D.S., Sivashankar, S.*, Sooriyakumar, K., Kamshajini, R.

Department of Agricultural Economics, University of Jaffna, Jaffna, Sri Lanka

**ssivashankar@univ.jfn.ac.lk*

Abstract

The Negombo Lagoon is one of the economically important coastal areas in Sri Lanka, however, it faces challenges due to faecal and oil pollution. Faecal and oil pollution not only affect the water quality but also threaten aquatic organisms, human health, and the livelihoods of local fishing communities. This has led to declining fish and prawn stocks, loss of biodiversity, and reduction in the lagoon's ecological and economic value. Therefore, this study employs the choice experiment approach to assess the local fishing communities' preferences and willingness to pay to reduce faecal and oil pollution in the lagoon. This study considered six attributes: faecal pollution, oil pollution, algae removal, fish and prawn stock, mangrove restoration, and payment. A total of 350 respondents were randomly selected using a well-structured questionnaire. The mixed logit model was used to elicit respondents' preferences. The findings of this study indicate that respondents are willing to pay LKR 1,220.20 and LKR 734.09 for a 50% reduction in faecal and oil pollution, respectively. Additionally, the estimated WTP for 50% algae removal, a 50% increase in fish and prawn stock, and a 50% increase in mangroves is LKR 2,181.10, LKR 2,313.78, and LKR 994.44, respectively. In contrast, respondents exhibited a negative WTP of LKR 899.88 for 25% algae removal. Notably, the findings of this study reveal that respondents have a higher WTP for increasing fish and prawn stock than for reducing faecal and oil pollution. It indicates that respondents prioritize attributes that are directly related to economic benefits over environmental improvements. Furthermore, results imply that respondents' education level and household monthly income significantly influenced the faecal and oil pollution reduction preferences. The findings of this study will help policymakers in designing effective strategies and pricing mechanisms to reduce pollution while considering local communities' preferences.

Keywords: *Faecal pollution, Mixed logit model, Oil pollution, Willingness to Pay*