

Stakeholders' Perceptions on Adoption of Eco-friendly Technologies to Minimize Chemical Fertiliser Use in Paddy Farming

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Abstract

It is accepted that Eco-Friendly Technologies (EFTs) can be used to reduce the use of Chemical Fertilizers (CFs) significantly and to gain in economic, social, and environmental benefits. Thus this study was aimed to analyse the perceptions of key stakeholders who are interested in paddy production in Sri Lanka. The purposive sampling techniques were practised to elect respondents (n = 167) representing four main segments; Farmers, Experts, Government Administrators and Private Industry Professionals. A series of personal interviews and online survey techniques supported by a structured questionnaire were carried out to gather data. In here each respondent was asked to evaluate 30 statements using a ten-point linear numeric scale, ranging from “extremely disagree” (0) to “extremely agree” (10). In analyses of data, comparison of Median values indicate that those stakeholders' perceptions varied significantly in the face of diverse scenarios. It was revealed that in the context of environmental aspects, the stakeholders are in a favoured position on adoption of EFTs above the use of CFs. The outcome of Non-Parametric Kruskal-Wallis Test shows that there is no significant difference among the Median values of responses among the stakeholder groups, statistically proving that their overall perceptions lie in favour of EFTs over CFs ($p = 0.253$, 95% Confidence Level). This signals the importance of institutionalization of those parties responsible for regulation (e.g., setting the standards, licensing/certification of) and facilitation (capacity building, rewarding of stakeholders) in the Agro-food value and plant nutrients supply chains with a solid national and overarching agricultural and fertilizer policy frameworks at its earliest.

Keywords: *Adoption, Chemical fertilizer, Eco-friendly technologies, Paddy farming, Stakeholder perceptions*