## Impact of Social Networks on Agricultural Technology Adoption: A Case Study of Ongoing Extension Programs for Paddy Cultivation in Matara District in Sri Lanka

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Abstract : The study delves into the complex dynamics of social networks and how they affect paddy farmers' adoption of agricultural technologies, which are included in Yaya Development program, Weedy rice program and Good Agricultural Practices (GAP) program in Matara district. Identify the social networks among the farmers of ongoing Extension Programs in Matara district, examine the farmers' adoption level to the ongoing extension programs in Matara district, analyze the impacts of social networks for the adoption to the technologies of ongoing extension programs and give suggestions and recommendations to improve the social network of paddy farmers in Matara District for ongoing extension programs are the objectives of this research. A structured questionnaire survey was conducted with 25 farmers from Matara-North (Wilpita), 25 farmers from Matara-Central (Kamburupitiya), and 25 farmers from Matara-South (Malimbada). UCINET (Version -6.771) software was used for social network analysis, and other than that, descriptive statistics and inferential statistics were used to analyze the findings. Matara-North has the highest social network density, and Matara-South has the lowest social network density according to the social network analysis. Dissemination of intensive technologies requires the most prominent actors of the social network, and in Matara district, agricultural instructors have the highest ability to disseminate technologies. The influence of actors in the social network, the trustworthiness of AI officers, and the trust of indigenous knowledge about paddy cultivation have a significant effect on the technology adoption of farmers. The research endeavors to contribute a nuanced understanding of the social networks and agricultural technology adoption in Matara District, offering practical insights for stakeholders involved in agricultural extension services.

Keywords : agricultural extension, paddy cultivation, social network, technology adoption

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