Assessing Farmers' Perception and Adoption of Drone Technology in Sustainable Rice Cultivation in Eastcoast Malaysia: A Review

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Abstract:

Roughly 50% of the global population is dependent on rice. The growth of the rice industry has been continuously evolving over time to increase its production and meet rising demand. The improvement of rice cultivation has been astounding since the use of drone technology in rice farming. They have revolutionized rice farming by providing farmers with significant cost savings, improved operational efficiency, and higher profitability. Despite the fact that drones have demonstrated their effectiveness in rice farming, very few farmers actually use them. This paper attempts to carry out a comprehensive review study to see how farmers perceive drone technology and their adoption. There were 11 articles that have been evaluated here. The study found that the use of drones in rice farming is influenced by a few important elements such as handling skills, drone roles, initial cost investment and training programs. Drone technology used in rice cultivation also supportsthe Sustainable Development Goals (SDGs), which aim to reduce poverty and promote economic equality, sustainability, and food security and safety.

Keywords:

Technology adoption, farmers, rice cultivation, technology perception, Malaysia.