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## Analyzing Farmers’ Socio-economic Conditions by Recording Data through a Mobile Application in Myanmar

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### Abstract

Farmers’ mobile phone applications (apps) provide agricultural information including weather, cultivation techniques, and market prices, to improve farm management. By using these apps, farmers can also communicate directly with agricultural technicians, traders, Agri-shop owners, and livestock experts.

This study explores the socio-economic status and agricultural knowledge of the households using the farmers’ mobile app ‘Greenway’ in the Gulf of Mottama, Myanmar. The research particularly looks to the monsoon paddy income registered with the use of the App. The major constraints of the Greenway app are also analyzed. The study was conducted through a survey using distance interviews with 46 households trained to use the mobile app in the Gulf of Mottama Project area led by Helvetas Myanmar in Mon State and Bago Region from October to December 2020. Descriptive analysis and multiple linear regression analysis were applied to analyse the data.

The descriptive analysis shows that the majority of both regions’ households have a male head, aged 49 years old on average. About 40 % of the farmers own primary education level. All the household heads own mobile phones and over half of them possess harrow machines. The average household non-farm income/year is 2,997 USD, with a higher income in the Bago region due to remittance from migrant workers. The average farm size is 15.5 acres. The average monsoon paddy income/acre in 2020 was higher than in 2019 (230 USD), due to higher yield.

From the Greenway app, farmers access agricultural information regarding weather, market price, pests& diseases, cropping techniques, livestock, seed information, compose technique, foliar fertiliser, and storage. The result shows that 56 % of the farmers find pests&diseases as the most useful information from the app, followed by weather (28 %) and fertiliser application techniques (26 %). The most appreciated feature of the Greenway app is getting timely information that helps take the right farm management decisions for higher yield. Eighty-seven percent of the respondents indicated the difficulties in using the app due to low education as a major app challenge, followed by poor internet connection (65 %).

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