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Farmers' socio-economic structure in Myanmar with regard to closing rice yield gaps

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Rice yield gaps are an important issue regarding food security in Southeast Asia. They are caused by biotic factors such as pests, and abiotic factors e.g. inadequate soil fertility and allocative efficiency gaps. Furthermore, the negative environmental consequences of agricultural intensification increase the risk of future yield gaps. This study focuses on the socio-economic parameters influencing rice yield productivity and yield gaps in the Bago region in Myanmar. There, yield gaps are high due to different geographical conditions, the use of traditional rice varieties and little fertilizer as well as poor access to inputs and few risk aversion activities. These factors severely impact yield productivity and demonstrate low agricultural profitability. The main objective is to analyze the socio-economic structure of farmers and investigate their characteristics with regard to farming methods, management practices and output. Data will come from household surveys conducted in Myanmar in 2012 and 2017. 200 farmers participated in the study; results will be analyzed using uni- and multivariate statistics. Investigating the farmers' income level, land preparation techniques, and geographical setting with the output shall demonstrate the significance of their socio-economic situation towards yield productivity. For example, farmers using improved rice varieties and optimized levels of fertilizer demonstrate higher yields. Nonetheless, natural conditions as well as economic and social constraints play an important role in the way farmers are able to cultivate their land. Therefore, yield output, allocative efficiency and profitability might be heavily influenced by exterior factors especially in the context of the political transition in Myanmar.

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