



Tropentag, September 15-17, 2021, hybrid conference

“Towards shifting paradigms in agriculture
for a healthy and sustainable future”

Rationale and Motivation of Rural Farmers in Adopting Floating Agriculture in the Haor Region, Bangladesh

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Abstract

Floating farming, a climate-smart practice, is a response to the challenges facing agriculture in wetland areas due to climate change. However, the motivation in adopting floating agriculture in wetland areas (also known as Haor) in Bangladesh is slow. This study aims to identify the factors that motivate and barriers that inhibit the adoption of floating agriculture in the Haor region of the Kishoreganj district, Bangladesh. To achieve the objective, Roger's five-stage innovation-decision model is used. Data from a sample of 120 Haor rural farmers is collected using a pre-tested structured questionnaire via a personal interview. Focus group discussions, key informant interviews, and secondary sources were used to gather additional data. A binary logistic regression is used to identify the factors that predict farmers' motivational actions in adopting floating agriculture. In addition, the order of rank is used to identify the obstacles that prohibit farmers from implementing floating agriculture. The findings demonstrate that education, agricultural training related to floating agriculture, credit received, prior conditions, communication behaviour, trialability and observability, complexity in practicing floating agriculture of the Haor farmers are the motivating factors in adopting floating agriculture. The result also demonstrates that the physical and natural barriers that inhibit the adoption of floating farming. Farmers' dependence on full-time farming and engagement with new methods may be a motivating force in the adoption of floating farming, but their continued practice of growing grain crops can demotivate them to do so. Finally, this study provides suggestions for increasing the motivation to adopt floating farming among the farmers in wetland areas.

Keywords: Adoption, Bangladesh, climate-smart agriculture, floating agriculture, Haor, Rogers model