

[P1] Field Crop Production

Thu. Sep 9, 2021 12:15 PM - 2:00 PM Room 1 (Poster) (Field Crop Production)

1:15 PM - 2:00 PM

[P1-08] Changes in Rice Farming from 2009 to 2019 in Three Rice Ecosystems with Contrasting Water Availability in Cambodia -Labor Saving and Mechanization-

*Nominated for Presentation Awards

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Rice farming in Cambodia has changed along with its rapid economic development but the differences across its diverse rice ecosystems have not been systematically studied. In order to assess regional differences in the changes in rice farming from 2009 to 2019 from (i) technology for water management, (ii) rice market opportunity and (iii) agriculture labor availability, a questionnaire survey was conducted in August 2019 in total of 151 households (HH) in 4 regions under 3 different rice ecosystems; 48 HH from Banan in Battambang Province (irrigated rice ecosystem; IR), 37 HH from Sangke in Battambang Province (deep-water rice ecosystem; DW), 34 HH from Kampong Chhnang Province and 32 HH from Takeo Province (rainfed lowland rice ecosystem; RL). Sangke changed from single deepwater rice production during wet season to short duration irrigated double rice production (i.e., dry season rice and early wet season rice) after the big flood damages in 2011. Rice income increased from 2009 to 2019 greater in IR and DW than RL; RL relied higher proportion of income on off-farm jobs. In order to cope with declining agricultural labor availability, mechanization and/or direct seeding played important roles in all the 3 rice ecosystems. Half of the farmers use both combine harvesters and tractors (only in IR and DW) whereas hand tractors and combine harvesters were used in RL. The amount of labor per hectare (person*day/ha) was one-twentieth of the HH with combine harvesters and tractors for direct seeding, compared to the households with only hand tractors for transplanting.