Rational

Rice is an important staple food in East Africa, but 40% of the rice consumed is being imported from Asia, which is not sustainable. Wetlands of East Africa have the potential to meet the growing regional rice demand but the production needs to be profitable as well as sustainable.

Rice Sector Development Hubs are used as a mechanism to boost the entire rice value chain through baseline surveys, field testing, the introduction and dissemination of promising technology options, and the assessment of their effects on the provision of ecosystem services.

Methodology

**Yield Gap Survey (YGS):**

Rice YGS were conducted in three hubs in the project countries Rwanda, Tanzania, and Uganda using standard AfricaRice protocols. We monitored 50 farmers’ fields and relevant data was collected throughout the season. Yield gaps are determined as the difference between maximum and average yield per hub.

**GAP testing:**

We conducted 18 on-farm trials comparing good agricultural practices (GAP) with farmers practices (FP) for two consecutive cropping seasons in Kilombero.

**Yield gap assessment:**

Researcher-managed plots with and without nutrient addition and weed control were imposed in 18 on-farm trials. Technology innovations included line-planted improved varieties and field bundling/levelling.

Take home messages

Wetlands provide the potential to realise rice self-sufficiency and even make export possible

Soils are generally poor and need to be improved through integrated nutrient management

GAP increased rice yields 2-3 times

Large-scale exposure of farmers to GAP can increase rice productivity at regional scale

Findings

Large yield advantages were realized with GAP

Assessment of classical yield gaps showed large yield increases for weed-free conditions and the application of N, P and K fertilizers, sole and in combinations (only GAP plot results presented).

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