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From Rural Situation Analysis to Farmer Entry Points and Grassroots Actions: Humidtropics Research for Development in West Kenya

PAUL LESTER WOOMER¹, CELISTER KALEHA², WYCLIFF WASWA²

¹*International Institute of Tropical Agriculture (IITA), Kenya*

²*Western Regional Alliance for Technology Evaluation (WeRATE), Kenya*

Abstract

The Humidtropics Program explores and advances livelihood strategies where poverty reduction, system productivity and natural resource integrity are effectively achieved. This goal results through a stepwise process that conducts a situation analysis, then examines systems improvement through strategic entry points, and then promotes collective actions and institutional innovations that advance emerging proven technologies. One of the Action Areas within the Program is West Kenya where four promising and interacting entry points (and impacts) were identified: legume integration (increased BNF), cassava intensification (enterprise diversification), *striga* elimination (increased food security) and improved livestock enterprise (improved diets and incomes). The key to building upon these four entry points is their intersection at the farm level as a means of deriving multiple household benefits. First a conceptual farm model was developed that describes these entry points in terms of yield, value and resource transfers. These elements were linked to findings from baseline and impact surveys, field actions planned around them, and then linkages forged with farm organisations, extensionists and commercial interests around the emergent useful technologies. Actions were conducted with the WeRATE R4D Platform composed of 26 grassroots organisations reaching 79,506 households. Outreach efforts revealed that *striga* emergence in maize is reduced by 63% using IR maize technologies leading to an additional 1.2 t ha⁻¹ yield and \$640 profit. Inoculation and blended fertilisers improved soybean nodulation 3-fold, increasing yield by 0.8 t ha⁻¹ and profits by \$370. Improved cassava production focused upon the release of six new varieties at 18 community demonstration sites and seven bulking centres with widespread sales of cuttings beginning in late 2015. Beneficial impacts from this work include widespread availability of IR maize through local agrodealers and farmer organisations, marketing of 299 tons of soybean per season as grain, seed and processed products, and increased demand for cassava with improved disease resistance and best tasting leaves. These efforts led to the establishment of 13 new agrodealers and the networking of 27 others. The timeframe of the three year project was insufficient to address the livestock enterprise entry point other than to quantify and increase organic resource flows useful as better feed. Otherwise, this approach led to widespread technology adoption by farmers and improved linkage of member farmers to input suppliers, commodity markets and other rural development interests.

Keywords: Collective actions, institutional innovations, strategic entry points, systems improvement