

From FIELD Report 18. Smallholders in Agricultural Value Chains: Models for Inclusive Growth

Table 1. Cases Included in Review

Country and Value Chain	Type of Study	Project Name	Project Information
Armenia Higher Value Crops	Experimental Longitudinal Impact Evaluation	Water-to-Market and High Value Agriculture, components of Irrigated Agriculture Project	\$14 million over 5 years (2006-2011) MCC funded
Bangladesh Dairy	Quasi-experimental Longitudinal Impact Evaluation	Strengthening the Dairy Value Chain (SDVC)	\$4.8 million over 5 years (2007-2012) Gates funded
Ghana Traditional Crops	Experimental Longitudinal Impact Evaluation	Commercial Training Activity, component of Agriculture Project	\$62.5 million over 5 years (2006-2011) MCC funded
Guatemala Horticulture	Cross-sectional Research Study	No project	Research under USAID AMAP BDS Project (2004-2008)
India Vegetables	Quasi-experimental Longitudinal Impact Evaluation	Growth Oriented Microenterprise Development (GMED)	\$6 million* over 4 years (2004-2008) USAID funded
Kenya Dairy	Longitudinal Cross-Country Study	Kenya Dairy Development Project (KDDP)	\$8.3 million over 6 years (2002-2008) USAID funded
Kenya Horticulture	Quasi-experimental Longitudinal Impact Evaluation	Kenya Horticulture Development Program (KHDP) and Kenya Business Development Services (KBDS)	\$10.2 million over 6 years (2003-2009) USAID funded and \$5 million over 5 years (2002-2007) USAID funded
Kenya Maize	Longitudinal Cross-Country Study	Kenya Maize Development Program (KMMP)	\$11.2 million over 8 years (2002-2010) USAID funded
Nigeria Fertilizer	Evaluation following DCED Standards	Promoting Pro-Poor Opportunities in Commodity and Service Markets (ProOpCom)	£9.9 million* over 3 years (2008-2011) DFID funded
El Salvador Dairy and Horticulture	Experimental Longitudinal Impact Evaluation	Production and Business Services Activity (PBS), component of Productive Development Project	\$55 million* over 5 years (2006-2012) MCC funded
Tanzania Horticulture	Cross-sectional Research Study	No project	Research under USAID AMAP BDS Project (2004-2008)

Zambia Agricultural Inputs	Quasi- experimental Longitudinal Impact Evaluation	Production, Finance and Improved Technologies (PROFIT)	\$17 million* over 6 years (2005-2011) USAID funded
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**These project budgets include additional value chain interventions not listed here.*

Table 2. Results on Smallholder Upgrading, Productivity and Income

Country and Value Chain	Upgrading Behavior	Agricultural Productivity	Enterprise Income	Household Income
Armenia High Value Crops	Target number of farmers were trained and used improved irrigation or cropping techniques (PM) but no evidence that training impacts use of improved practices (PI)	No impacts detected on crop yields (PI)	No impacts detected on crop revenues (PI)	No impacts detected for household incomes (PI)
Ghana Traditional Crops	Targets exceeded for number of farmer-based organizations and individual farmers trained in new farming methods (PM) but evidence on impacts of training on use of improved practices was weak (PI)	No impacts detected on average crop yields across entire sample, but results differed across the three zones (PI)	No impacts detected on average crop income, but with zonal differences: northern farmers had higher crop incomes but southern farmers had lower crop incomes, both relative to control group in zone (PI)	Not reported
India Vegetables	Evidence of positive impacts on farmer awareness of improved practices, but no evidence of impacts on use of improved practices (PI)	No evidence of impacts on crop yields; vegetable production fell sharply for all groups between 2007 and 2009, coinciding with market contraction (PI)	No impacts detected on average crop incomes, which fell for all groups in pattern reflecting zonal differences in market opportunities (PI)	Not reported
Kenya Dairy	New genetic material adopted by 91,500 smallholder dairy farmers through artificial insemination services (PM)	Milk yields increased 19% per cow, unit costs fell 16% and value of nationally traded dairy products increased 37% (PM)	Not reported	In cross-country study using longitudinal data (2004, 2006, 2008), poverty rates fell 4.9% more for direct treatment households and 9.9% more for indirect treatment households, when compared to control households (PI)
Kenya Horticulture	Smallholders growing avocado and passion fruit increased use of spraying, grafting, pruning, and other services sold by market linkage firms (PM)	Evidence of positive impacts on productivity, defined as annual production per mature tree or vine (PI)	Significant increase in crop income for participants and imitators relative to those who did not apply new methods (PI)	
Kenya Maize	Training in improved inputs and practices, demonstration plots and capacity development in farmer associations; at project end, 98% of targeted farmers used improved seeds (PM)	Smallholder maize yields tripled over the baseline period (PM)	Average household income for participants increased by \$533 or \$1.46 per day (PM)	
Nigeria Fertilizer	Fertilizer sold in smaller packets through a rural sales network providing demonstrations, resulting in increased fertilizer use by smallholders (PM)	Productivity increased 15% over baseline period. Yields increased in maize (39%), sorghum (60%) and rice (13%) (PM)	Crop income increased 30-40% for farmers using fertilizer in recommended doses and application methods (PM)	Household net income increased 32% over baseline period (PM)

El Salvador Dairy and Horticulture	Targets exceeded for number of farmers trained, with 75% of farmers applying improved methods (PM)	Significant increase in volume of dairy products sold; no evidence of impact on productivity in horticulture (PI)	Large and significant increase in dairy income for participating farmers; no evidence of impact on horticulture income (PI)	No impacts detected on net annual household income or consumption in dairy or horticulture (PI)
Zambia Agricultural Inputs and Services	Agrochemical/seed suppliers (14) worked through network of 600 sales agents to increase sales and use of improved inputs by smallholders (PM)	Maize production increased 82% for active farmers and 68% for non-active farmers, but difference not significant (PI)	Active participants increased crop income significantly more than non-active farmers (173% and 47%, respectively) (PI)	Cash consumption expenditures increased for both groups, but difference was not significant (PI)

Note: Information followed by (PM) is taken from project monitoring results, while information followed by (PI) is taken from impact evaluation results.