Title: What Are The Drivers of (Low) Farm Productivity? Micro-Level Evidence from Philippine Smallholder Coconut Farms

Abstract: Increasing the productivity of Philippine coconut farms that are well below world standards could improve the livelihoods of 3.4 million farming families, most living in poverty. Government and international organizations have long promoted Good Agricultural Practices (GAPs) that public research suggests would double farm productivity with little capital investment. My analysis of unique data on productivity and operations for approximately two thousand smallholder coconut farmers in the Philippines identifies in unprecedented micro-detail best practices for five key operations: salt fertilizer use, mulching, pruning, weeding, and pest control. I find strong, unprecedented micro-detail evidence suggesting that blanket GAP recommendations for salt fertilizer use practices are not effective when farm environments vary, tailoring practices to which can yield 10% to 20% short-term productivity gains equitably across the least and most productive farms, and that the best practices for the other four operations, each of which can contribute between 5% and 30% greater farm productivity, differ from the GAPs in such micro-details as the minimum amount of mulch applied per tree. My results suggest that supporting organizations should focus on developing better customized farming advice for smallholders and assist farmers with the finer details of implementation, a course of action not currently preferred by the industry, but increasingly possible through emerging information technologies. Customized farming advice communicated in fine detail, extended beyond the Philippine context, could potentially improve the circumstances of more than two billion people worldwide whose incomes are dependent on smallholder farms.