Title: Nature and Extent of Farmer Participation in Cocoa Certification in Ghana
Author: Ebenezer Ansah

Abstract: Cocoa production in Ghana has been persistently characterized by complexly interrelated economic, social and environmental problems, which brings sustainable production and supply of cocoa into question. Critical and most popular among these problems are: low income from cocoa farming attributed to low farm productivity and resulting in low standards of living among cocoa farmers; inadequate social and public services in cocoa growing communities; environmental degradation; and unfair labor conditions and the use of child labor in cocoa farming. Sustainable cocoa production in Ghana is an important issue because it is the world’s second largest producer (about 21%) and producer of best quality premium cocoa. Again, cocoa production employs about 60% of the country’s workforce (who gain 70 to 100% of their household income from it), and contributes about 3% and 17% GDP and export earnings respectively. About a decade ago, the concept of cocoa certification was introduced in Ghana with the aim of alleviating the problems associated with cocoa production. Cocoa certification of producers promotes good agricultural practices, healthy and safe production practices, workers’ right, and natural resources and biodiversity conservation. Certified farmers besides the benefits of adopting these recommended practices, receive a price premium for their certified beans. The adoption of the recommended practices as well as the certification process however, comes with associated cost that is borne by the farmer. Farmers therefore have to make tradeoffs in deciding whether or not to participate in certification. Not much has been said in literature about the characteristics of farmers who get certified or not as well as how they assess the program and are engaged in it. Knowledge of these issues would be helpful in making better judgment of the impact of cocoa certification. This study seeks to identify the factors that determine participation in cocoa certification; examine farmers’ expectations and assessment of cocoa certification, and to explore the extent (if any) to which farmers are engage in the process of cocoa certification. The study has collected data through 16 in-depth interviews with officials of several institutions and organizations in the Ghanaian cocoa sector; 7 focus group discussions in cocoa growing communities where certification has been implemented; and a household survey of 312 certified and non-certified cocoa farmers. Cocoa districts and cocoa farming households used for the household survey were selected using stratified random sampling. Descriptive statistics and multiple regression analysis of survey data are used to identify and describe farm, household and individual characteristics that determine participation in cocoa certification. Descriptive statistics and thematic analysis of survey and qualitative data are used to explore farmers’ expectations and assessments of certification as well as the extent to which farmers are engaged in the cocoa certification process.

Title: Increasing resiliency of farmers through stress tolerant maize varieties in semi-arid Gujarat, India: Lessons from the past and strategies for the future.
Author: Udita Sanga
Abstract: Drought and water-logging are the major abiotic constraints affecting maize production in India. There is a need for developing more stress resilient maize varieties which are adapted to the changing climate and variability of temperature and rainfall. Our research aims to identify the scope of adoption of stress tolerant hybrid maize varieties using survey data from 199 maize-growing households in Panchmahal district of Gujarat, India. A univariate logit model is used to analyse the factors that determine adoption behaviour of farmers with respect to hybrid maize varieties. A system dynamics model was developed to conduct an ex-ante assessment of adoption and diffusion of stress resilient maize varieties in the target population based on the past adoption behaviour of farmers regarding hybrid maize varieties. Our study demonstrates a high climatic risk perception and awareness among the farmers. Education, access to irrigation, input dealers and extension services, social capital and information networks had a significant influence on adoption. Our dynamic adoption model enables us to distinguish between the different types of adopters and gain a deeper understanding of the relative strength of adoption determinants as identified by the logit model. Our study lays a solid base for the scope of stress tolerant maize variety adoption as well as guiding the formulation of relevant and informed policies and information channels for adoption and diffusion of new innovations for improved maize production in the area. A combination of strategies that involve extension outreach to the prospective maize farmers but place more emphasis building to information channels that foster interpersonal interaction through farmer groups and co-operatives will lead to an enhanced adoption rate of new technologies.

Title: Field Verifying an Agricultural Production Model of Malawi Developed Using Satellite Imagery

Author: Brad Peter

Abstract: The primary objective of this research is to distinguish primary and secondary trends in the spatiotemporal variability of agricultural productivity in Malawi. The assessment was performed by analyzing the Net Primary Productivity (NPP) product derived from NASA MODIS satellite imagery and by drawing comparisons between individual land areas and the country-wide statistics. The data were categorized by placing each individual land area into one of six categories; low, average, or high productivity, and whether or not they were resilient or sensitive to biophysical and/or social production drivers. Model assessment occurred via field work in Malawi. Approximately 200 sites were visited across nearly the entire extent of the country. Cropland and land cover were assessed via visual inspection, true color/near-infrared photography, and on-site interviews with farmers and extension officers to inquire about productivity and limiting factors for yield. Additionally, a continental scale application of the model is presented to demonstrate its performance across scales.