Taïsha Venort

Taïsha was born in Boston, MA, and grew up and lived in Haiti. She earned a B.S.E in Environmental & Ecological Engineering (EEE) at Purdue in 2013. She joined ESE in 2014 to complete her M.S. in Agricultural & Biological Engineering. In 2015, she received a U.S. Borlaug Fellowship to conduct her research project in Kenya, investigating the application of biogas technology in rural farming systems. While at Purdue as a graduate student, Taïsha received EEE's 2016 outstanding graduate teaching assistant award, and served as the funding committee chair for the 2015 ESE Symposium, and the Bio-energy chair for the 2016 ABE symposium. Taisha is looking forward to work in the field of international agricultural development for Food Security. Her interests include exercising, cooking, singing, dancing, and spending time with family, friends and colleagues she has gotten the chance to meet through her journey.

Biogas Technology Application in Western Kenya - A field Investigation in Nandi and Bomet Counties.

Wednesday April 12, 2017

10:00 AM ABE 301

The integration of biogas technology into Kenyan farming systems is becoming more common since the launch of the Kenya National Biogas Programme (KENDBIP). A comprehensive assessment on the status distribution, operation of biogas plants constructed through KENDBIP, and their role within rural farming systems, is undertaken in two important dairy herds of Kenya (i.e., Nandi and Bomet counties), towards understanding factors affecting applications, for energy and agronomic use. Data on farming systems, operation and application were collected from 242 farm households in both counties. A Binary Linear Regression model was developed to pinpoint constraint factors most influential to plants operation. Descriptive statistics were used to compare users' experiences, and capture farm households' trends in energy and fertilizer use. Higher operational rate in Bomet (77%) than Nandi (59%), reveal that plants' viability are impacted by subsidies 'liability schemes of local supporting programs. Records of partial substitution to biogas and bio-slurry seem to contribute to the reinforcement of local agro-forestry traditions through an increase in the adoption of zero-grazing practices, wood/tree lots retention, and more efficient agricultural land attribution in the smallholder context. These changes are all having a positive impact on farm households' livelihoods and food security. Key recommendations to biogas programs stakeholders are that local subsidy schemes take better account of liability towards local technicians, Quality Control responsibilities are decentralized to local enterprises, and Research & Development strategies further investigate Biogas technology application in agriculture, and its role in directly impacted value chains (i.e., Dairy, African Leafy vegetables, Feed & Fodder) for better experiences by farmers.