PURDUE CENTER FOR GLOBAL FOOD SECURITY

Seed Grant Seminar Series

Tolu Omotoso

Integrated Resources Management Approach to Ensuring Sustainable Food Security in Nigeria - The Nexus of Rice Production in Niger State

Wednesday, February 10, 2016

3:00 - 4:00 PM, MRGN 121

ABSTRACT: By 2050, the world will need to feed 9 billion people. This will require a 60% increase in agricultural production; 40% increase in water demands and 30% increase in energy demands. Most of these demands will come from developing nations like Nigeria. Water, energy and food resources are intrinsically linked and these links are becoming more evident due to a changing climate. To sustainably manage demands for these resources, policy makers need to understand how they are linked and the possible trade-offs associated with their developmental decisions. The Nigerian government is planning to intensify agricultural production and build a new hydropower dam in Niger state. Both projects are in direct competition for available freshwater resources in the state, hence setting up possible trade-off scenarios. These trade-offs are not properly understood. This project aims at improving knowledge on the nexus and trade-offs between water, energy and food resources using this important food and energy (hydropower) producing state in Nigeria as a case study.

Tolu is a PhD candidate in the school of Civil Engineering. He obtained a B.Sc. in Industrial Chemistry from the University of Lagos in 2009 and proceeded to Purdue in the fall of 2011 to pursue his graduate studies in Civil Engineering.

Tolu developed an interest in the environment during his final semester of his undergraduate study at the University of Lagos after taking an environmental chemistry class. He is passionate about protecting the environment and the adoption of sustainable and environmentally friendly processes. His PhD research focuses on the water-energy-food nexus. Through his PhD thesis, he aims to increase awareness on the interlinkages between water, energy and food in a changing climate.

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