



## **Master Thesis on evaluation and analysis of on-farm demonstration trials for small-scale African farmers**

### **The Topic:**

**Statistical evaluation and analysis of field demonstration trials for yield and economic parameters from 4 countries – Ethiopia, Mali, Nigeria and Uganda**

### **The Background:**

Since 2010 the NGO Sasakawa Africa Association (SAA) has implemented demonstration trials of improved agricultural technologies on farmer' fields as learning and training sites. The demonstrations usually have three plots with use of high and medium inputs and farmers' practice. During the season we record amount and costs of inputs, labor and equipment used, yield and farm gate prices of the harvested produce.



### **The Goal**

An evaluation of these parameters with respect to yield and economic performance of improved technologies versus farmers' practice considering agro-ecologies, climatic conditions and other factors would help us in the development of evidence based technology recommendations for small-scale farmers.

### **The Challenges and Requirements**

The challenges of this task are to manage a huge data pool and to develop a model for statistical analysis to extract relevant information which has to be robust and simple enough that results can be translated into agricultural extension advice.

Evaluating and analyzing data generated in farmers' fields by non-research personnel might require a competent background in statistical methods, flexibility of thought, dedication to the task to find the best way forward and innovativeness to match standards of statistical rigor with the necessary simplicity of on-farm demonstration trials. Additionally some background of agricultural extension approaches would be helpful to better understand our methodology, its advantages and limitations. However, SAA would facilitate a field visit in one of our target countries to familiarize the candidate with its work and extension model.



### **The Data Set**

Data on on-farm demonstrations has been collected from 3 years, 2011-2013, in 4 countries. In each country we have a set of 80 to 400 demonstration trials per year with different crops and technologies. Some of the data sets need cleaning for outliers and/or erroneous data.

### **The Starting Time**

The M. Sc. student could start any time, preferably from March/April 2014. We would expect a concentrated effort to develop results and the thesis in a timely manner.

### **Contacts for Further Information**

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