ARC Annual Report SIMLESA - 5 July 2017

Objective 5: Capacity building to increase the efficiency of agricultural research today and in the future

The ARC conducted a Biometry Training, Data Analysis and Consultation Week from 13-17th February 2017.

The training was attended by 17 researchers from Tanzania and held at the Moshi Co-operative University in Moshi, Tanzania. The trainees attended fall in four groups namely Breeding (5), Social Science (3), Agronomy (6) and Food Science (3).

The consultation week involved the following activities:

1. One-day Statistical Guideline training followed by
2. Consultation with candidates to find out the aim and goals of the study and what has been done thus far.
3. Data analysis with SAS, GenStat or XLSTAT (Data has been sent to the Biometry team) Interpretation of results and advice was given regarding tables and graphs to add into the thesis or publication
4. Reviewing publications for statistical correctness
5. Continue to finish data analysis 2 to 3 week after consultation

Some data has been sent in advance for the Biometricians to work on.

Two students from Mozambique completed their Masters degrees in Agronomy at the **North-West University Mafikeng Campus** in South Africa. The graduation ceremony will take place on the 24 October 2017.

PhD thesis topic and Timetable (for Mekonnen Sime)

1. **Research Topic: <u>Common Bean Technology Adoption, Commercialization, and Impact on Household Welfare</u>**
2. **Research Questions**

a. What is the adoption level of improved common bean production technologies and what factors are influencing the uptake?

b. Do the smallholders continue the adoption or is there a disadoption of the technologies and what are the reasons for the disadoption if there is any?

c. What is the extent of smallholder farmers' commercialization and which barriers are important in the commercialization process of smallholders?

d. Does the adoption of improved production technologies and commercialization contribute to the welfare improvement of farm household?

Progress so far:

Research result write-up has been started since end of May 2017 following data cleaning and organization. Data processing took long time my time this year. Based on the nature of data, review of literatures on appropriate analytic approaches have been conducted. Currently, I am working on one of the chapters 'Analysis of crop diversification and effects on smallholders' crop productivity and commercialization in maize and legume growing areas of Ethiopia' and will submit to my supervisor in July for comment. Detail list of activities and due dates are indicated in the Timetable below.

A Timetable for PhD thesis work

Activities	Deadlines
Chapter 1: Updated chapter one (back ground of the study and problem statement)	March 2018
Chapter 2: Literature review compilation and updating	April, 2018
Chaper3: Analysis of crop diversification and effects on smallholders' crop productivity and commercialization in maize and legume growing areas of Ethiopia	End of July, 2017
Submission of paper on crop diversification for workshop/journals	August, 2017
Chapter 4: Smallholders' commercialization and determinant factors in semi-arid production areas of the Ethiopia	End of September, 2017
Submission of paper on commercialization to journals	October-November, 2017
Chapter 5: Adoption and disadoption of common bean technology and impacts on household welfare in rural Ethiopia	End of Juanuary, 2018
Submission of paper on adoption to journals	February, 2018
Compilation of the thesis	May-June, 2018
Chapter 6: Formatting, abstract conclusion, and others	July-August, 2018
Chapter 7: Editing and formatting the References	September, 2018
Submission of the thesis	End of September, 2018
Inclusion of comments and final thesis submission	December 2018

Effect of plant density on growth and yields of six soybean (*Glycine max* L. Merril) cultivars grown at three localities in South Africa - Gabriel Francisco Braga

Comparative analyses of the nitrogen fixing potential of different legume species grown under different agronomic practices – Custodio José Fernando Jorge