Seed security and Seed systems in Magu district

This project is initiated by St Augustine University of Tanzania and funded by Magu District Council (50%) and Norwegian supporters. Project manager is Professor Constantine Busungu (PhD Agriculture), Senior Lecturer at St. Augustine University of Tanzania.

Project started October 2019 and will last for one year.

Dag Saether Biodiversity Development has delivered an aerodynamic separator, CAD4, to the project and installed it and educated key people to operate it.

From the opening of the project. In the middle, Dr. Philemon Sengati (Phd), District commissioner - Magu District, on his right side, Dag Saether and to the left Jan Fr Sagdahl.

Executive Summary

Food security is a key priority for the over 60 million people of Tanzania, with annual population of growth rate of 3.11% this population is envisaged to double by 2050. The need to feed this population puts increasing pressure on the fixed land for food production. Agriculture still remain the vital tool for sustainable development and poverty alleviation even in the 21st century, and this is particularly true in developing countries like Tanzanian (World Bank, 2010; Ruane and Sonnino, 2011; Benjamin, 2013).

To achieve food security, Tanzania must be able to grow sufficient food. Since most developing countries rely on their agricultural production for their food security, it follows that food insecurity is mainly due to deficient agricultural production and low productivity. A main reason for this situation is that seed and planting material of adapted varieties required by farmers are not always available when needed, a situation often referred to as seed insecurity.

Availability and accessibility of quality seed is vital doorway for promoting productivity, nutrition and pliability among smallholder farmers. Seed has been described as an essential, strategic, and relatively inexpensive input that often determines the upper limit of crop yields and the productivity of all other agricultural inputs. Given the critical role that seed plays in agricultural production, a key question is how to facilitate the development of a seed system that is capable of generating, producing and distributing new seed varieties that meet the needs of all farmers, in a cost-effective way given the critical role that improved varieties play in increasing agricultural production.

General Objective

Research Objectives

1. To determine the extent of dependency on developed countries for supply improved seeds
2. To identify surviving local crop varieties(landraces) in Magu district
3. To determine efficacy of aerodynamic cleaning and separating machine in improving seed security in Magu district using both local and improved varieties
4. To asses potential community seed production development in Magu district through a creation of district farmers seed resource center.
5. To asses impact farmer platform in influencing farmer′s technology adoption rate.

Research questions

1. What are varieties cultivated by resource poor farmers in Magu district
2. What is the quality of these seeds used by the farmers in Magu district
3. Where is the origin of the varieties often cultivated by farmers in Magu district
4. Is the aerodynamic cleaning and separating machine technology able to improve seed security in Magu district?
5. What is the adoption rate of high yielding variety in Magu district?
6. Is the community seed production system feasible in Magu district?