



OPTIONS FOR SUSTAINABLE AGRICULTURE IN CHEREPONI DISTRICT



MULTIDISCIPLINARY RESEARCH REPORT 2014.

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With support from:



1. INTRODUCTION

1.1 INTRODUCTION TO THE PROJECT

Overall there has achieved an immense reduction in the level of poverty in Ghana, nonetheless, certain regions such as the Northern Region still lag behind (MoFa, 2013). Around 50% of the persons living in this region are still considered to be poor (poverty line = 792.05 GHS) and are involved in agriculture as their main economic activity in the area (GSS, 2014). Considering the important role agriculture plays in alleviating poverty in this part of Ghana, an agricultural project was initiated in 2011 (due to run for a period of five years) in the Chereponi district of Northern Region, Ghana by Sabab Lou (a registered German non-profit organization based in Stuttgart). 350 women from five villages are members of Anoshe Women Group (AWG) and execute the project by producing soybean as their main cash crop. In collaboration with the German foundation Sabab Lou, the Center for Agriculture in the Tropics and Subtropics (Tropenzentrum), every year four master students from different disciplines (forming an interdisciplinary team) from the University of Hohenheim work towards achieving a sustainable increased agricultural production for the women of the AWG. In 2014 the following four subjects were represented: crop science (Elli Wahl), socio-economics (Kwame Ansah Baffour), soil science (Ukeme Okon Archibong) and animal nutrition (Christian Bateki Adjogo).

1.2 STUDY AREA

This study was conducted in Chereponi district in the North-East of Ghana. The Republic of Ghana as is located along the coast of West Africa between latitudes 4°44" and 11°11"N and longitudes 3°W and 1°E. Bordered by Burkina-Faso in the North, to the West by Cote d'Ivoire to the east by the Republic of Togo and extends southwards to the gulf of Guinea. Ghana covers a land area of about 239,000km² and is administered by a central government, 10 regional governments and several districts.

Chereponi is one of 26 districts in the Northern Region of Ghana. Located between latitudes 10°10" and 10°20"N and longitudes 10°10" and 10°20"E, it is situated on the extreme of the North-East of Ghana directly bordering Togo and covers a land area of about 1080km². The study was conducted in four of the five beneficiary communities of the AWG project.

Chereponi falls within the Guinea Savannah Ecological zone (Issaka *et al.*, 2004). The climate according to the Köppen-Geiger system is classified "Aw" which is typical of savannah zones and is characterized by distinct wet and dry seasons (Peelet *et al.*, 2007). Average annual rainfall is about 1100mm. Average annual temperature is about 28°C. Vegetation is typically Guinea savannah and consists of grassland and several drought resistant tree species. (Government of Ghana, 2010).

Chereponi district has a population of 53,394 of this about 49.1% are male and 50.9% are female. The area is typically rural with settlements scattered into the interior (GSS, 2010).

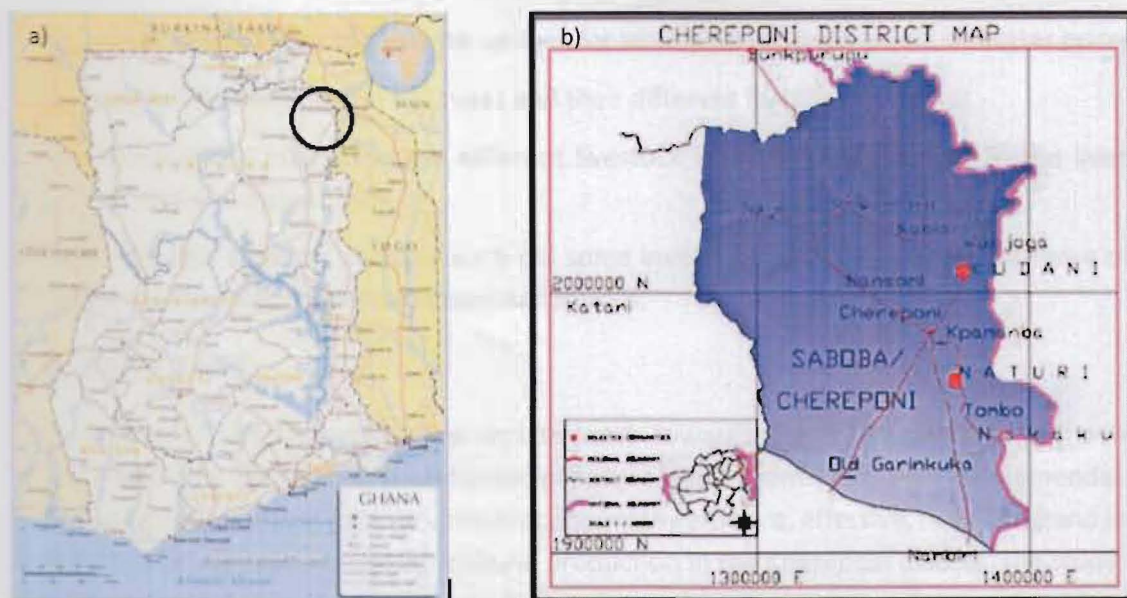


Figure 1.a) Map of Ghana, b) Chereponi district

a) Source: http://www.nationsonline.org/maps/ghana_map.jpg, b) Source: GIZ

1.3 PROBLEM STATEMENT

The previous group (2013 group) laid a foundation for the work by collecting baseline information that was unavailable due to limited literature or related sources available for the study site. As such, they collected and made available information in line with their objective of finding options for sustainable agriculture for the AWG. These included information relating to cropping practices, general reviews on soil fertility and associated management, identification of sociological challenges and the impacts the accompanying NGO services for the beneficiaries, and a value chain analysis of the main focus crop; soya bean.

Within the framework of this project's concept of sustainable productivity and increased revenues through improved technologies, increased yields and incomes for farmers, some objectives of the present group were formulated following collected data, recommendations and knowledge gaps identified by the previous group (see "Interdisciplinary report, 2014" for more details). Some of those considered included:

- Information regarding various options of land preparation, use of fertilizers and crop management practices as whether rotation or mixed cropping etc.

- Recommendation that a data base system should be built for members, yields, and other information relating to the NGO's members. Also, the creation of a monitoring system for the NGO's activities and expenditures.
- Recommendations to evaluate options for storage of produce to secure better prices
- General information on soil types and their different fertility status.
- General information on the different livestock kept, some challenges to the livestock project and opportunities.

As such, the four students selected each did some investigation relating to one or more of the above mentioned information or recommendations.

1.4 OBJECTIVES

The purpose of this research group was to work towards the recommendations that were highlighted by the 2014 Sabab Lou Interdisciplinary research team. From their recommendations, this study seeks to further explore various economically efficient, effective, innovative and locally suitable options for sustainable agricultural production in the Chereponi district. The study aims to capture these options from a joint multidisciplinary study in the areas of crop, soil, animal and socio-economic and sets suitable recommendations for future researchers.