Introduction

The Core Trial ran by the Institute of Agricultural Research for Development (IRAD) is located in the IRAD Multipurpose Research Station of Nkoemvone near Ebolowa, southern region of Cameroon. An area of 3.5 ha was dedicated to the project trial which aimed at building the basis of knowledge for a sustainable intensification of cocoa production. In this regard, a set of activities so far implemented is summarized here.

Site

The site is accessible even during the rainy season. It has fairly uniform characteristics in terms of landscape (slope around 2%) and has hosted in the past annual crops and the oil palm. A watersource for irrigation purpose was identified at 300 m from the plots.

Site preparation and mapping

The site has been fallow for a long time, therefore, it has been the subject of manual cleaning through clearing, felling, windrowing and skidding operations. A total of 86 experimental plots with an area of 225 m² (15 m x 15 m) separated from each other by an interval of 3 m were delimited and the necessary GPS data were noted.

Profile digging and Soil sampling

This work was done by a team of pedologists. Five soil profiles were done according to the protocol and their description was done using FAO guidelines. Soil samples were collected for each 15 x 15 m plot after maize harvesting and before planting cocoa in the field. These samples were sent for analysis.

Maize harvesting and conditioning

Maize sowing and harvesting

About 100 kg Hybrid maize was sown in all experimental plots. Three months later, maize was harvested and yield as well as biomass data were collected.

Nursery establishment

Planting of plantain