



TWO-WHEEL TRACTORS & CONSERVATION AGRICULTURE

FOR SUSTAINABLE INTENSIFICATION IN ETHIOPIA



Intensification is a fact

In the fight to eradicate hunger Ethiopia is improving its agricultural productivity and has allocated 10% of its national budget to the agricultural sector. Consequently, many positive changes have taken place in this sector over the past decade. The production of cereals has drastically increased and the average maize yield is now above three tons. Intensification is definitely taking place.

The needs of productivity



But in order to handle this rising productivity the need for power, labour and machines is growing. Until recently, most farmers in Ethiopia were practicing subsistence farming, which has resulted into hunger, little productivity and a decrease in farm power.



Modernizing the sector as a response

Many efforts are being made to improve the life of Ethiopian farmers and their productivity as a response to the growing demands. Agricultural mechanization research projects like FACASI aim at increasing farm power while ensuring land conservation. This is done by adapting innovative technologies such as the two-wheel tractor to the local context and needs.

Farmers know best

In order to adapt the two-wheel tractor to the local context in the best way possible, FACASI's research started by asking the farmers themselves who had been trained on maintenance and operation to try, evaluate and give recommendations for the improvement of the two-wheel tractors. Over the past three years the two-wheel tractor has been tested on 18 pieces of farming land around FACASI's two Ethiopian research centers in Hawassa and Asela.



Analysing the data from farmers



Based on the feedback of the farmers FACASI examined the benefits and necessary improvements of two-wheel tractors for Conservation Agriculture, especially in terms of time, soil conservation capability, productivity and power consumption.



Locally manufactured

After that, FACASI cooperated with the “Metal and Engineering Technology Corporation (METEC), a government owned engineering cooperation that has been engaged in manufacturing agricultural machinery, in order to locally manufacture 2-wheel tractors and their attachments. Together, FACASI and METEC are working hard on creating the infrastructure that will be able to provide Ethiopian farmers with a technology that will answer their needs and has multiple purposes such as planting on unploughed and mulched fields, threshing, and planting.

What the future holds



FACASI also organizes field days in order to increase the farmer's understanding of two-wheel tractors and Conservation Agriculture. At first the farmers were very skeptical. But when they saw the results of using this machinery they were amazed. Luckily the FACASI project will go on during the coming years. And who knows what else two-wheel tractors will be used for?



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