

## Alabani's story: ripping instead of ploughing to beat the drought



“Ripping is very good and rewarding. I had no fears when the rains stopped for a while, because my plants had water and looked very healthy. It was easy to plant in lines, manage the field and control pest invasion.”

Alabani Ibrahim, maize farmer in Sung, Karaga District

Sporadic rainfall in Sung, Karaga District, has affected the productivity and yields of many smallholder farmers over the years. One of these is the maize farmer Alabani Ibrahim. But he is less worried about the future, thanks to his input provider Batbak Services, which has partnered with the UK DFID-funded Market Development Programme for Northern Ghana (MADE) and introduced Alabani to a whole new approach.

The average maize yield in Sung has stalled at between 600 kg and 800 kg per acre. To change this, Batbak provides smallholder farmers access to improved seeds and inputs, along with advisory services and training in good agricultural practices from their Farm Enterprise Advisors (FEAs). After five years as a Batbak customer, Alabani increased his yields to over 1,000 kg per acre – but he could not improve the rains.

“Crops need moisture to grow. When there is drought the crops wither and die and farmers lose their investment,” says FEA Rahaman Mohammed. So Batbak has continued seeking ways to mitigate the effects of irregular rainfall

and drought. In 2018, the FEAs introduced farmers in Sung to conservation farming involving minimum tillage. Alabani opted to rip a portion of his land instead of using the conventional tractor ploughing service. That season, the new farming method resulted in an extraordinary yield of 2,400 kg of maize per acre.

Minimum tillage refers to the practice of land management that allows seeds to be placed at the proper depth to ensure a good seedbed and rapid germination while minimising the disturbance of the soil. “Newly established crops on conventionally ploughed land begin to wither after two weeks of drought,” Rahman observes. “Land

that is ripped maintains moisture to keep plants growing in times of drought." Ripping achieves this by freeing the way for roots to reach deeper into the soil for water and nutrients. It also allows for timely land preparation and easy planting in rows, resulting in optimal plant spacing and capture of the early rains. In addition, crop residue and fertiliser used in the previous year remain on the land and decompose in the soil to form manure, increasing fertility over time.

The dramatic results of his 2018 harvest spurred Alabani to increase his acreage of ripped land from 17 to 30 acres in the 2019 season. With the benefits of minimum tillage using the ripping method apparent, other farmers in Sung are also appreciating the importance of adopting new ways of farming to address climate change. More of them are opting for ripping rather than conventional tillage or tractor ploughing.

*"I ripped only a part of my farm because I was not sure of the outcome. I wanted to test and be convinced of the results. I am happy I took the risk and it worked."*

Alabani Ibrahim, maize farmer in Sung, Karaga District



Comparing ripped (upper half) and ploughed (lower half) parts of the farm

Anticipating the demands of these farmers in the 2020 season and beyond, Batbak are investing in a ripper, a no-till planter and a boom sprayer to boost the range of services provided to the more than 2,000 farmers they serve. And the agribusiness is not alone in recognising the need to expand ripping services in Sung. Alabani has also identified the opportunity to rip other farmers' fields for a fee and has purchased a ripper of his own to do just that as a community tillage service provider.



Alabani with the tractor attachment he uses for ripping his land

*"The farmers were sceptical about the benefits of using a ripper. But after seeing the results of Alabani's field – healthy crops, big cob sizes and a bumper harvest – a lot of them have expressed interest in ripping their farms."*

Rahaman Mohammed, Farm Enterprise Advisor with Batbak Services