

ROCKY FIELDS TURN INTO GREEN FIELDS ... as farmer embraces conservation farming

It does not even look like a piece of land an average farmer would dream of. It is dry, rocky and, at first glance, looks barren. Even natural vegetation does not do very well here. In fact, few would guess that this is actually a small-holding that has lifted a family of four out of abject poverty; one on which 39-year-old Roderick Ngoma's family has become a perfect example of how Conservation Farming can turn seemingly barren land into a productive haven.

It is from this two and a half hectare rocky piece of land that Ngoma this year expects to reap 85 x 50 kg bags of maize, as well as generous other harvests of groundnuts, sunflower, cotton and beans. Everyone who saw this derelict piece of land before 2008 can now not help but marvel at how Ngoma has turned it into very productive land using Conservation Farming technologies. To many people in the area, it is testimony that Conservation Farming is good news for bad soils.

"A lot of people can't believe that one can actually produce food from a rocky piece of land like this one. I tell them 'see for yourselves' and they still fail to believe even what is before their eyes," says Ngoma, with an emphatic voice.

About 12 years ago, Ngoma decided to leave his home area deep in Chipata rural to start up a bicycle repair shop in Mazala, about 14 km along the main road to Chipata town.

Because it is hard to get good land in the area, Ngoma identified an abandoned and unattractive rocky piece of land, in order to boost his chances of securing it. In fact, the piece of land he identified was so poor that the Eastern Province Cooperative Union, a company that used to supply stockfeed and seed, once used it as a dumpsite for crop waste.



Mr. Ngoma in his 'rocky field' before he started practicing conservation farming



Mr. Roderick Ngoma with his son in their much improved field

"The piece of land had poor soils. It was very rocky and no one could have loved to live here. I went to the area chief (Chinyaku) to ask for where to stay and he gave me this bare land," says Ngoma, who clearly had no prior intentions of becoming a farmer.

However, when he settled down on that piece of land, he could not earn enough money from his bicycle repair shop to live on. He tried growing some maize on the one reasonable acre of land but it was a nightmare.

"We tried to grow some maize and we could only manage 6 x 50 kg bags of maize which only lasted us three months," he says.

In order to cover up for the shortfall for the rest of the year, Ngoma stepped up his bicycle repair and with the little income he earned, he would regularly have to ride the 14 km to Chipata town to buy 5kgs of mealie-meal. One June afternoon in 2008, as he took a stroll in the neighbourhood, Ngoma stumbled upon a gathering of fellow villagers.

"I stopped and listened to what was being discussed and I was interested when I heard that the new type of farming would even benefit poor soils. I attended the rest of the meeting and when I got home I shared the information with my wife and she was interested to learn more," he said.

A couple of months later, after a few lessons from a Conservation Farming Unit (CFU) Field Officer, the couple decided to try out the new farming methods by planting one lima of maize.

"From that one lima we discovered that our first yield was three times more than what we had been harvesting. We managed to get 20 x 50 kg bags of maize and we immediately knew this was the way to go," he said.



Over the past four years Ngoma and his wife have been practising Conservation Farming, their lifestyle has been turned around from that of sponging for food to self-sufficiency. He has, since 2008, been able to grow groundnuts, maize, sunflower, sweet potatoes and cotton without being at the

mercy of the poor land, and is definitely managing better than the 84 percent of small-scale farmers who are faced with massive economic challenges in Zambia.

Before Ngoma was introduced to Conservation Farming, together with his fellow small-scale farmers in Mazala area, he thought he had to keep expanding the size of his fields to make a big enough harvest to feed his family.

His family, like many others in the community, were limited to one meal per day, as his fields couldn't produce enough. Yet commercial farmers can produce much higher yields per hectare than most small-scale farmers and "I realized that we did not have to expand this small piece of land to get better yields, we just needed to do it right," he says.

Last season, Ngoma planted maize on two of the three available limas and managed to harvest 65 x 50 kgs of maize. This year, he expects to harvest 85 x 50 kg bags from all three limas. This increment over the previous year he attributes to his increasing skill using Conservation Farming technologies, together with the way that ripping has allowed him to utilize more of his poor land.

From the entire produce, Ngoma's family keeps 24 x 50 kg bags of maize for consumption throughout the year. The rest is sold to the Food Reserve Agency in order for the family to cater for other needs.

"I have never bought any mealie meal

since I started Conservation Farming four years ago," he says.

Before Ngoma started with Conservation Farming, he was mostly practicing traditional ridge splitting, particularly on the bad rocky bits, where a plough could not go. Only he and his wife performed this back-breaking work because their children were too young to do it. The couple would also weed using hoes and were failing to finish two limas.

Now, with more money to spare, the family has been able to buy two oxen, a ripper and chaka hoes. By using oxen-drawn rippers, which can manage even the poor, rocky areas, they can prepare the land much more easily. Every season they also buy herbicides and fertilizer.

As is recommended with Conservation Farming, they start land preparation as early as June and now when they plant they do not spend more than four hours on the field on a given day.

"I have more time to concentrate on my bicycle repair business," he said.

From the money they earn from selling maize, cotton, soya beans and groundnuts, the couple has been able to buy 40 new roofing sheets for their planned house. They have also bought a colour television set, a solar inverter and DVD player. Their two children, now in grade seven and eight, each also has a bicycle which they ride when going to school.

Though he would like to expand the crops further, the lack of available land has made this very difficult. Instead they now "plan to buy a piece of land on which to build a house in Chipata, which we will rent out".

Ngoma says many other farmers in his area have benefited from his expertise. But he is still eager to learn more about Conservation Farming.

"I still attend field days organized by the CFU. We attend to learn more and also to teach our friends. There are a lot of things to learn and perfect. It is like studying at school, you have to keep reading. In football you have to practise all the time to be good at what you do," he said.