

Farming the roof of Africa – Conservation Agriculture in Lesotho

Words & photography by Barry Mann

If you study a map of the world you could be forgiven for not noticing the small mountain Kingdom of Lesotho, which is dwarfed by the country that envelops it, South Africa.

Despite its size the Kingdom of Lesotho is special. It is home to the incredibly friendly Basotho people, it boasts the highest low point of any country in the world, the spectacular Drakensburg & Maluti Mountains and is the source of the life giving Orange River.



Maluti Mountains

Lesotho is however struggling today in the face of adversity. The combination of HIV/AIDS, soil erosion & crop failure has had a devastating effect on the population over the past few years, which is clear for all to see.

To understand why soil erosion is such a problem in the country you have to look back to the mid 19th Century when Basotoland, as Lesotho was known then, incorporated a much larger area of the fertile western lowlands. The loss of a majority of this land during the Free State – Basotho wars in 1858 and 1865 resulted in the Basotho people being pushed back and forced to farm in the more remote and inaccessible mountain terrain.



Cultivated hillsides

Today only 10 percent of the Country is classified as arable. Over time, the pressure on the land has led to over grazing and the use of modern farming equipment, such as the plough, has resulted in topsoil being eroded away at an alarming rate. Travelling through Lesotho today the tell tale evidence of soil erosion is everywhere with huge dongas forming scars that cut across the landscape. It is currently estimated that each year 18-20 tonnes of topsoil is being lost per hectare and if this continues there will be no cultivatable soil left in the country by the middle of this century.



Soil erosion

All this may seem like yet another story of doom and gloom in Africa but there is a hope which is radiating out from the small village of Tebellow in the south of the country. That hope is coming from the teaching of Conservation Agriculture methods by the Rev. August Basson.

August is an African Inland Mission (AIM) missionary from South Africa who, together with his wife Anita and their 3 children, has been living in Lesotho for the past 14 years. Anyone who has had the privilege of meeting August, as I have, cannot help but be caught up in the passion and vision that he has for the entire Basotho nation.

So how does Conservation Agriculture make such a difference? August's method, being taught under the banner "Growing Nations" is based on the principle of working with nature not against it, utilising traditional zero till farming methods rather than more destructive and costly modern methods. Farmers are taught to plant seeds in small holes in the ground, which are covered with organic matter and fertiliser added. The crops grow with minimal disturbance to the surrounding soil, whilst the organic matter traps the moisture, aiding growth in times drought. Once the crop has been harvested the stubble is no longer burnt but remains in the ground to decompose, thus returning organic matter and nutrients to the soil and maintaining the soil structure.



Conservation Agriculture field

During a visit to Lesotho in the spring of 2006, it was plain to see that the recently ploughed fields showed signs of soil erosion and donga formation, whilst neighbouring fields farmed using Conservation Agriculture methods did not. This is explained by the fact that rain in Lesotho, when it comes, is usually in the form of heavy thundershowers, which exacerbates the soil erosion. Reduced disruption to the soil and the replacement of organic matter increases the soil stability and decreases the amount of soil eroded during these rainstorms.



Donga formation

This particular method of farming is very labour intensive but in a country where the adult population has been ravaged by HIV/AIDS, unemployment is high and the skill base low, the increased yields that result benefit the whole community.

An important part of Growing Nations vision is also working alongside the orphans within the community, helping them to farm their land whilst giving them the opportunity to go to school and get their vitally important education. In Tebellong alone there are many children who have been orphaned by the HIV/AIDS epidemic that has swept through Lesotho. They inherit their parents land but they do not have the knowledge or skills to know how to farm it. It is a vicious circle. Those that do spend their time farming miss out on their education and those that continue in their education leave their fields uncultivated and risk losing them forever, as they are reallocated by village chiefs.



Orphan's learning Conservation Agriculture methods

During 2006 Growing Nations received donations, which enabled it to purchase a tractor-mounted planter and two cycle sprayers. This equipment has been used to good effect on the orphans fields. The children are educated in the farming methods by the team whilst the planter is used to sow the maize or bean seeds. I witnessed fields being sown and sprayed in a matter minutes, a fraction of the 2-3 weeks that it would take to sow the seeds by hand. The use of the equipment maintains the zero till policy and enables the children to maintain their education whilst tending the fields after school.



Tractor & planter in action

If you ask August whether it is working, the answer is a resounding “Yes”. It has taken time to get to this point but the success of the farming was evident this year. Despite a good start to the planting season and promising early growth spurred on by rains in November & December the usual summer rains failed. All over the country the worst drought for 30 years scorched the crops and the anticipated harvest failed to materialise.

According to figures from the United Nations World Food Programme (WFP), Lesotho’s harvest in 2007 was 40 percent less than it had been in previous years and only 20 percent of the Country’s estimated annual requirements. They also estimate that some 500,000 people, or one quarter of the population, will face food shortages in the coming months before the next harvest in 2008. Thankfully UN relief work is already underway providing support to those in need, including loans enabling farmers to purchase enough grain to plant this spring.



UN WFP food distribution

Given these facts, it is quite remarkable to hear that for the first time in their history, the WFP has purchased maize directly from local farmers in Lesotho who managed to produce a surplus. This surplus has come from farmers who have been using the Conservation Agriculture methods taught by Growing Nations. The money received makes a significant difference to the farmers and their families who have not only benefited from the money but who also have access to a local market place. The wider community also benefit as the grain purchased by the WFP will be used to provide meals to hungry children who attend primary schools in the area.



Conservation Agriculture farmers in Lesobeng

Given the high price that grain is currently commanding in Lesotho & surrounding South Africa, the Growing Nations project and the WFP are combining to bring hope to the Basotho people. Going forward, if the land is farmed using Conservation Agriculture methods it will yield significantly better crops and slow the rate of soil erosion.

August and the Growing Nations team are working hard to spread the Conservation Agriculture message, sending out trainers into communities throughout Lesotho to teach and equip the local farmers. LEC ministers are also being equipped to act as trainers themselves in their isolated communities in addition to the WFP's Food-for-Training initiatives.



Growing Nations training team

In support of the Growing Nations project, August is in the early stages of a process, which will see a new headquarters for the project being developed in Maphutseng, a site much closer to the capital, Maseru. This is a 2 year plan which will use local people to develop a conference centre and academy on the site where the original French missionaries settled back in 1833.

Today there are some 1,800 farmers across the country using the Growing Nations Conservation Agriculture methods. This may be a small percentage of the population but as those around witness its success in the community, Growing Nations vision is that it will become a way of life and provide a future for the Basotho people who are farming the roof of Africa.



Hope for the future

Growing Nations has the support of the UN Food & Agriculture Organisation (FAO), WFP and Ministry of Agriculture in Lesotho. August has also worked closely with the Ministry of Education to ensure that the Conservation Agriculture farming methods are now taught as part of the school curriculum in Lesotho.

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