

A group of men and women are gathered in a field in Kenya measuring distances using lengths of string. Following them are others digging small holes at very precise angles and applying specific amounts of fertiliser and seed. There's a lot of laughter and animated talk, but also focus and concentration.

These pastors and church leaders from the Anglican and Catholic Churches in Kenya are learning a form of agriculture called Farming God's Way, which is not only helping to restore degraded land and protect the environment, but also increasing crop yields—sometimes significantly, by three, five or even ten times. In the words of trainer Craig Sorley, of Care of Creation Kenya, it is a way of farming that 'gives glory to God and hope to the hungry'.

Agriculture is the backbone of sub-Saharan Africa, providing the biggest source of employment, livelihoods and foreign exchange. Yet African agriculture is in crisis: soils are worn out and agricultural production is falling. Africa's fragile soils suffer from a combination of poor agricultural practices, degradation of natural resources, overgrazing and the pressure of growing populations.

Other problems include lack of access to land, particularly for women farmers. Most people farm on plots of two hectares or smaller, and these smallholder farmers provide as much as 90% of agricultural production in some countries.

As populations increase, the soil is worked harder on ever-decreasing plots. The International Fertilizer Development Center (IFDC) estimates that sub-Saharan Africa loses around eight million tonnes of soil nutrients per year, and that more than 95 million hectares of land has been degraded to the point of greatly reduced productivity. No wonder farming is seen as a profession of last resort: no one wants to be a farmer in Africa.

Africa is the only region in the world where poverty and hunger are on the increase. Per capita agricultural production has fallen in sub-Saharan Africa by about 5% over the last 20 years while increasing by 40% in other developing countries.

—Practical Action

God is the 'Master farmer'

So how is Farming God's Way transforming farming in Africa? This faith-based approach to farming is based on the idea that God is the Master Farmer and calls upon us to be faithful stewards of the land. 'Farming God's Way puts God back where He belongs—into the very centre of how we view and practice agriculture. This is a holistic approach that ministers to farmers, addressing the spiritual and physical roots of the decline that is taking place,' says Craig.

'For Christians, the story of agriculture begins in Eden with the knowledge that God was the one who planted a magnificent and diverse garden. This story brings tremendous meaning and dignity to the realm of agriculture. As Christian gardeners we need to follow the example of the First Farmer and uphold the Garden of Eden as a model to be pursued. The beauty of a healthy, productive and well cared for agricultural landscape should be a testimony to the Christian faith.'

How does it work? In practice Farming God's Way is similar to conservation agriculture, which is promoted throughout the world by secular groups such as the UN's Food and Agriculture Organization as a form of climate-smart agriculture that both restores degraded land and increases crop yields. As well as reducing drudgery for smallholder farmers, this farming method nourishes the soil and enables it to retain water much better, which means it's particularly useful in dry areas.

The difference with Farming God's Way is that it is based around Biblical teachings. 'Conservation agriculture is Farming God's Way without God. But it's the God part of this picture that really changes attitudes,' says Craig. He explains the core principles:

- Minimal disturbance of the soil (no tillage). Ploughing destroys soil structure including the microorganisms that live in the soil, leading to erosion and rapid water loss.
- Permanent organic cover in the form of mulch. 'In Creation we observe that God does not leave the soil bare.' This improves the soil's ability to absorb water and adds organic matter.
- No burning of crop residues, as is common in African agriculture. These are used to cover the soil instead.
- Crop rotation, which reduces the build-up of crop-specific pest and disease problems.

'Our land will be richer'

In Kijabe, west of Nairobi, Craig grows crops using Farming God's Way methods and conventional agriculture to compare how well they do. His plots are just a few years old; with every year, the soil will become richer and more productive. Even so, he's already seen big differences. In 2012 he harvested 89kg of potatoes from his Farming God's Way plot and just 51kg of potatoes from the conventional plot. His bean harvest was even more impressive—three-and-a-half times as much from the Farming God's Way plot compared with the conventional plot.

'They are planted on the same day, same variety, same small amount of inorganic fertiliser applied and this is all rain-fed agriculture,' he says. 'The beauty of this is that it's simple, it's achievable, you use your own resources in the community—you don't have to bring in fertilisers and seeds from the outside. It's just a change in commitment to the soil itself. If we restore the soil we will bring more food into our families.'

His results are echoed elsewhere in Africa where similar techniques are applied. In Uganda, for example, the Ministry of Agriculture, Animal Industry and Fisheries reports crop yields up to 600% higher with farms using conservation agriculture.

Augustine Muema Musyimi of the Methodist Church in Kenya attended one of Craig's workshops and says: 'We've trained people to understand what the Lord says about farming and because we are Christians that really resonates with us. We feel that we need to take care of Creation and of the way we are farming. What do I think? That farming will be transformed across Kenya, that many people will learn to farm in a way that glorifies the Lord and our produce will increase. We will conserve our land and it will be richer.'

In the first weeks of 2014, a very special workshop was held in Nairobi, Kenya. Around 30 imams had gathered there from all over the country to learn the practical techniques involved in farming sustainably—one that is based on Islamic teachings about caring for Allah's creation. This was the first training workshop in a new Islamic approach to agriculture entitled Islamic Farming, developed by the Alliance of Religions and Conservation (ARC) and UK-based international Muslim NGO Global One 2015, following requests from ARC's Muslim faith partners.

The seeds of this new approach go back to ARC's Nairobi celebration in 2012 to launch 27 long-term plans on the environment developed by Christian, Muslim and Hindu faith groups in sub-Saharan Africa. During the two-day meeting, Muslim participants listened with great interest to the presentations on Farming God's Way. They were particularly struck by the way this Christian approach to farming both improved crop yields and protected the environment through linking a farmer's faith beliefs to the way she or he cared for the land. At the end they had a question: 'What about Muslim farmers? Why isn't there a faith-based approach to farming for us?'

It was a good question; out of 910 million people in sub-Saharan Africa, 248 million are Muslim, and many are small-scale farmers. As a result of this call, ARC and Global One 2015 began working with Muslim faith partners in Africa to develop a faith-based manual and training programme inspired by Islamic teachings and beliefs.

This would be the first manual specifically designed for Muslim farmers using the practical principles of conservation agriculture (a way of farming promoted by the UN's Food and Agriculture Organization as being both environmentally sustainable and climate smart) but with a spiritual foundation that is entirely based upon Islamic scriptures and teachings.

The first step was a thorough theological assessment of Islamic scriptures. Focus group meetings were held with Muslim clerics and scholars in Kampala, Uganda, and Nairobi to consider issues around Islam and farming and there was tremendous enthusiasm for the project from all involved.

In Uganda, a number of Muslim farmers attended a Farming God's Way workshop so they could see how the Christian faith was integral to the teaching, while also learning the practical techniques used. All were impressed by what they had learned.

Environmental champion Hajjat Aphwa Kaawaase Sebyala was among the Muslims to receive this training and afterwards planted her garden using Farming God's Way techniques.

The results, which came after a prolonged dry period in which conventional crops experienced almost total crop failure, amazed her. Even though she had started her planting late with little time to prepare her land properly, her Farming God's Way plot had a 50% survival rate, showing it dealt with the very dry conditions much better than the conventional plots. And her Farming God's Way maize cobs

And it is He Who produces gardens with trellises and without, and dates, and tilth with produce of all kinds, and olives and pomegranates —Qur'an, 6:141

were twice the size of the traditionally farmed maize: 'This Farming God's Way really works!' said Hajjat, smiling broadly.

Delighted though she was, Hajjat's success brought its own unexpected problems: 'Many people resorted to stealing from our Farming God's Way plot as the cobs were really big, healthy and attractive,' she said, before shrugging philosophically. 'I understand why—they needed food.'

The Islamic Farming handbook was launched in Nairobi in 2014 to great enthusiasm from the Muslim community. What makes Islamic Farming different is that it speaks to Muslim farmers in the language of the Qur'an and the Sunnah.

By integrating Islamic scriptures with practical teaching in conservation agriculture, the manual helps farmers grow food while protecting the environment in a way that makes sense to them as Muslims.

The Supreme Council of Kenya Muslims, which represents Muslims in Kenya, has established a demonstration and training farm on a 700-acre site in Thika, Kenya. Another ten demonstration farms have been established elsewhere in Kenya and a further ten in Uganda.

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