

Food for thought from the land of a thousand hills

By [Gordon Conway](#)

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On my most recent visit to Rwanda, it was evident that farmers there are beginning to do well. I have visited the country on a number of occasions over the past ten years, and each time I am impressed to see significant improvements in the lives of ordinary people. With average annual agricultural growth rates reaching [5.7% between 2001 and 2012](#), and average annual gross domestic product growth of [7%-8% since 2000](#), the signs are looking good.



The key to Rwanda's agricultural success is good partnership between nongovernmental organisations, the private sector and the government.

[Sam Thompson/DFID Rwanda](#)

Farmland covers three quarters of all land in Rwanda, amounting to about [18,425 km²](#). Of the agricultural land, half of landholdings are less than half a hectare in size, and two-thirds of all food produced is for household consumption. This indicates that the agricultural sector remains largely subsistence in nature, despite the fact that these small farms are becoming increasingly commercial. Rwanda is famous for its coffee and tea, which combined account for about [70% of agricultural export earnings](#).

Rwanda certainly lives up to the tagline “the land of a thousand hills”, with stunning mountain scenery at every turn. This is beautiful for the visitor, but it presents real challenges to farmers, who typically have a farm plot that is just 0.6 hectares in size. Plots also tend to spread over several locations, resulting in many households farming as little as 0.4 hectares.

A thousand hills

The flatter land is often used to grow crops to sell at local markets. The steeper slopes, which are more difficult to farm, are used to grow food for household consumption. But as the population swells, additional pressure is loaded onto scarcer land. This encourages people to move on to even steeper slopes, where farming is physically more demanding and the shallower soils are more prone to erosion and landslides.

Despite these challenges, Rwandan farmers are fortunate to have at least two – and sometimes three – growing seasons. This allows them to survive on small plots of land and even produce a surplus to sell at the markets. But this alone does not explain the continuous trend towards success.

The key to success may be, in part, thanks to good partnership between nongovernmental organisations, the private sector and the government. The appointment of technically qualified ministers is also helping: a perfect example is [Dr Gerardine Mukeshimana](#), who gained her PhD from Michigan State University in genetics of drought tolerance in beans.

Success for smallholder farmers

The government of Rwanda has made significant efforts to implement an extension programme to equip smallholder farmers with the skills and resources they need for success.

The Rwandan Agricultural Board and the [One Acre Fund](#) (OAF) have a formal relationship, with staff of the fund embedded at agricultural board's head offices. Together they have developed an efficient extension system that uses about 13,000 specially trained farmers, called farmer promoters. These farmer promoters receive training at the start of each season so they can train other farmers in their own villages, sharing new techniques, information and best practices.

Rwanda is known as the land of a thousand hills. [Laura/Flickr](#)

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The scale and scope of this programme is impressive: it aims to reach every village in the country. Farmers trained by farmer promoters can expect to generate [additional income of US\\$26 per year](#).

This isn't all that the OAF is doing in Rwanda. It also works with more than 125,000 smallholder farmers to provide a package of goods and services on credit. These include farm inputs, distribution of seed and fertiliser, training on agricultural techniques, and crop insurance. The bundle costs about \$80 per farmer and is repaid during the agricultural season. [OAF financing has a repayment rate of 98%](#)

Access to modern maize varieties and fertilisers appropriate for local soil needs increases yields to an average of three tonnes per hectare, with some farmers growing as much as four to six tonnes per hectare during the first crop season.

OAF ensures that its customers have access to high quality inputs, improved seeds and credit, as well as knowledge about good agricultural techniques, thus removing some of the major barriers to well-functioning value chains for smallholders. In 2015, Rwandan farmers who benefited from the OAF model saw an average gain of [53% in income](#).

This indicates that they were able to grow more produce than was needed for household consumption such that some of it could be sold at markets for additional income. This takes farmers beyond the subsistence level, allowing them to pay back their loans and cover other costs, such as education and health care.

Targeting the youth

Rwanda has a rapidly growing population of [young people](#), all of whom need suitable employment. At the same time, members of the growing urban middle class are demanding more food and a more varied diet. If harnessed by young people, this demand could create new entrepreneurial opportunities through the expansion of the agribusiness value chain.

The challenge is that young people often see agriculture as outdated, unprofitable and labour intensive, so they are hesitant to engage with its myriad of opportunities.

[TechnoServe's STRYDE programme](#) is going some way to counter this aversion. It helps young people see the value that agribusinesses can offer. Between 2011 and 2014 the programme helped more than 3,500 young people in rural areas get their business ideas off the ground and become successful entrepreneurs.

After a three-month intensive training programme that covers business management skills, financial literacy, personal development and confidence-building exercises, graduates are offered help to develop sound business plans and access loans that are guaranteed by a government scheme.

This method seems to be remarkably successful in empowering young people to make their businesses work and achieve their ambitions. I found particular inspiration in a group of 12 young women and men, mostly recent secondary school graduates, who met during their training and decided to form a cooperative.

The main business of this cooperative, the Association pour la vision des Élèves de Nyonirima, is selling improved seed potatoes. But members also shared a second loan to establish their own businesses on the side. These range from growing and selling garlic and tree tomatoes, to owning a bar, to providing mobile banking services, to running a rabbit-rearing business, to selling the services of a bull for cattle insemination.

Grounds for optimism

Of course, there is still much more to do. Child malnutrition is on the decline, with stunting in children under five dropping from [43% in 2012 to 36.7% in 2015](#), but is still too high and needs addressing. Furthermore, only [18% of the total population](#) has access to electricity. Irrigation is limited to a very small proportion of land, although the [Ministry of Agriculture and Animal Resources](#) has programmes in place to address this. These are significant infrastructural challenges, which may deter important private sector investment.

But there is much ground for optimism. The agriculture sector is ripe with opportunities that need to be harnessed to improve livelihoods and strengthen rural economies. This will allow rural people to diversify their incomes and increase their resilience to socioeconomic shocks and climatic stresses.

Perhaps there are lessons for other countries. If effective and scalable interventions are hung along ever-stronger agricultural value chains, then governments, donors and the private sector can truly help rural people get their ambitions off the ground.

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