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Promoting empowerment and knowledge through smallholder farmers' associations in Malawi

The National Smallholder Farmers' Association of Malawi has used its multi-tiered membership structure to build a 'knowledge chain', spreading conservation agriculture techniques to more than 37,000 farmers. Combining this effort with support for adult literacy is empowering farmers (particularly women) to both gain and use new knowledge.

Overview

Around 85 per cent of Malawi's population (which is approximately 15 million people) live in rural areas, and about 80 per cent of Malawians depend on renewable natural resources for their subsistence and household incomes, whether through agriculture, forestry, fisheries or tourism. Population growth is around 3 per cent a year. In the countryside, 90 per cent of people practice subsistence agriculture and around 97 per cent depend on wood fuel for energy – giving Malawi the highest deforestation rate in the southern Africa region (around 2.8 per cent per year).

This deforestation, driven by charcoal production, wood fuel and agriculture, coupled with poor land management practices and water conservation, has meant run-off, flash floods, soil erosion and sedimentation have become serious environmental threats.

Changing weather patterns, mostly in the form of droughts and floods, are damaging agricultural production, particularly for maize – the dominant staple. Dry spells are common and can cause losses of 20-30 per cent of total yield per hectare. Conversely, between 2001 and 2010 the number of districts classified as flood-prone rose from 9 to 14, and 15 per cent of the rural population now face flood risks. In 2012-2013 1.97 million people will have faced food insecurity.

These challenges contribute to both transient and chronic poverty in Malawi. The country's Poverty and Vulnerability Analysis of 2006 linked household size, poor education, low access to non-farm employment, poor access to irrigation, distance from markets and trading centres, and inadequate access to good road infrastructure to household poverty. Female-headed households, large families, orphans, the elderly, the chronically sick and those with disability are particularly vulnerable. Female- and child-headed households are less likely to own livestock and other assets, or to control land or gain access to credit and training. They are also more likely to work in the informal sector. An Integrated Household Survey in 2010 measured poverty rates among female-headed households at 57 per cent, compared with 49 per cent for male-headed households.

Clearly, the many causes of poverty intermingle, and tackling them will require integrated solutions.

Interventions and impacts

Given agriculture's dominant role in Malawi's economy, Conservation Agriculture (CA) – which aims for sustainable and profitable farming based on the three principles of (a) minimal soil disturbance, (b) permanent soil cover and (c) crop rotations – is one strategy that can help poverty alleviation and climate change resilience, as well as agricultural productivity. To achieve this, the National Smallholder Farmers'

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Box 1. The National Smallholder Farmer's Association of Malawi (NASFAM)

NASFAM, the National Smallholder Farmer's Association of Malawi, was established in 1998 and represents more than 100,000 farmers, most of whom farm on less than one hectare. It has a unique extension network formed from 'clubs' of 10 to 15 individual farmers. The clubs combine to form 'action groups' – the level at which most information dissemination takes place and where farmers can join together to scale up their crops. Groups of nine or more action groups combine to form associations.

Before 2000, women made up less than 8 per cent of NASFAM members, but that has now risen to 41 per cent. More than 50 per cent of the board members are women.

NASFAM intertwines commercial and development activities. Its commercial side markets inputs to farmers as well as promoting and marketing their produce at national and international levels. The development side looks to improve crop quality and quantity; enhance associations' performance; expanding member's livelihoods, and increasing smallholder farmers' influence on policy.

NASFAM complements the government's official agricultural extension system. A NASFAM Farm Services Manager (author, W. Kumwenda) and team of Farm Services Officers train Association Field Officers (AFOs) who work closely with government extension workers. But as numbers of government extension officers have fallen, NASFAM has introduced a farmer to farmer extension programme. AFOs train lead farmers and also provide material support, such as push bikes, stationary, inputs for farm demonstrations (seeds, fertilisers, measuring implements) and protective clothing.

NASFAM is an active member of the National Conservation Agriculture Task Force (NCATF), which coordinates promotion of conservation agriculture across Malawi.

Association of Malawi (NASFAM, see Box 1) is using support from Irish Aid to spread CA knowledge among 100,000 farmers across 19 districts.

Following on from a successful CA pilot project in 2008, Irish Aid is supporting a programme that will run until 2015. NASFAM's collective membership nature, and its wide national network of farmers, is the crucially important vehicle for this knowledge sharing, training and empowerment. The programme aims to widely share CA principles and practice, so helping smallholder farmers produce more food and cash crops despite challenges like soil depletion, climate change and high prices for commercial fertilisers.

The programme has strong links with work in Malawi by several CGIAR research centres – The World Agroforestry Centre, ICRISAT (the International Crops Research Institute for the Semi-Arid Tropics) and the International Potato Centre.

The main strategy is to train 'lead farmers', who then share their new knowledge, for example on crop diversification, with farmers clubs. Training for lead farmers emphasises not only new farming methods but also the importance of a diverse and nutritious diet, particularly for children and lactating mothers. And farmers learn about tree planting and water conservation, building their knowledge on how to become more resilient to longer-term climate change.

The project also documents 'best practice' and communicates this through the media (with regular slots on national radio, twice-a-week at midday and twice-a-month in programmes that have a specific focus on climate change). Demonstration field days provide another route to farmers. And a quarterly newsletter, disseminated at district level, keeps extension works informed.

Regular visits by project coordinators ensures information flows both from and to 'the field'. This model of participatory skills and information sharing is empowering and accountable because knowledge flows in both directions. Information passes from NASFAM head office, to regional and district level and from lead farmer to farmers in 'clubs'. But farmers also discuss their concerns and provide vital information 'from the ground', which is fed back to inform research on good practice, disease challenges and economic growth trends and changes.



George Ntonya

Lucia Saineti, a 32-year-old widow in her maize field



*Daniel Kampani
and his wife
Clara on their
conservation
agriculture
demonstration
plot*

George Ntonija

As well as training, the NASFAM programme provides practical assistance. The project helps farmers get quality inputs such as seed and fertiliser (through ICRISAT – see associated case study in this conference series, *Seeds for change: a certified seed project in Malawi is boosting local incomes and supporting emerging national agricultural policy*) and advises farmers on getting better prices in domestic and global markets.

Farmers report that the CA knowledge sharing has made a wide-reaching difference at household level, as children are better nourished, and income from selling produce has let more attend school.

But it is not just children receiving 'schooling'. It is clear that high adult illiteracy hinders efficient technology transfer. In rural Malawi 28 per cent of men and 51 per cent of women are illiterate. So in a shift from the normal NGO model of focusing on one or two development issues, NASFAM has developed adult literacy and numeracy classes, run at local schools. This project, which targets NASFAM members who are either illiterate or semi-illiterate, helps farmers to read about new agricultural practices and also do gross margin analyses to appreciate the benefits new practices offer.

Main achievements and challenges

Across the NASFAM, 97 per cent of members are now aware of conservation agriculture (CA) techniques,

Box 2.

A lead farmer, Daniel Kampani, lives with his wife and four children in Mchinji district, in central Malawi. He says climate change is bringing unpredictable rainfall across Malawi. Many crops are lost to extremes of either dry or wet weather. Insufficient crop diversification or work to retain soil fertility has 'tired' soils and led many farmers to rely on tobacco (as a cash crop) and maize (as the main food crop).

In 2001 Daniel joined NASFAM through the Mchinji Smallholder Farmers' Association, and by 2004 he had been selected by his fellow farmers as 'lead farmer', leading five clubs, with a total of 70 fellow farmers.

Daniel has established a Conservation Agriculture demonstration on a 0.1 hectare piece of land. He still grows maize as the main food crop but supplements it with groundnuts and soybeans to improve soil fertility and boost household nutrition. He rears pigs and poultry too. And better soil means better profits from his tobacco cash crop. In his first year, Daniel's maize production increased from 200kg to 350kg, and in his second year it rose again to 400kg.

He and his wife say their children are better fed, and all now go to school, paid for by selling surplus crops.

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and 37,589 farmers have adopted the approach (53 per cent of these are women). A total of 15,445ha is farmed with CA, 19,135ha now use organic manure (rather than bought fertilisers) and 11,677,850 new trees have been planted. With crop diversification, and water harvesting, farmers clubs report higher yields and more predictable water resources that will help them develop 'climate smart' agriculture. And poor rural women are more empowered to take control of assets and of marketing their produce as a result of literacy classes. Over 30,000 members have benefited from these and are now able to read, write and work out simple mathematics.

NASFAM's overall approach of using conservation agriculture, crop diversification, grain banking, seed multiplication and nutritional education to support food security is clearly working – and the project described here contributes to this success. NASFAM members are more food secure than average smallholder farmers. More than 55 per cent of rural Malawian households suffer from chronic food shortages in a normal production season as against 21 per cent of NASFAM farmers.

The project has also built awareness and understanding of CA both among district-level extension works and at national level in the Ministry of Agriculture.

Naturally, given the scale of Malawi's rural poverty, challenges remain. And agricultural behaviours can be hard to change. For example maize stalks are

traditionally burnt, whereas CA advocates laying them on the ground and planting new maize through them, thus retaining soil moisture and forming a natural compost. Changing this attitude is a key challenge to scaling up CA and NASFAM is working with traditional leaders to promote the CA 'recycling resources' approach.

Lessons

Large membership organisations (like NASFAM) can build a capacity-building knowledge 'chain' linking, national policies to district extension workers to lead farmers and then to collective farmers clubs or associations.

Knowledge sharing through networking, peer to peer training and good practice demonstrations can yield widespread and significant benefits. For example, smallholder farmers in Malawi report CA has brought higher and year round yields, reduced labour requirements, more climate resilient agriculture, raised incomes, better family nutrition and, indirectly, improved educational access for children.

Combining interventions can produce 'more than the sum of their parts'. Here, combining CA training with opportunities to improve literacy is helping farmers both access knowledge and use it to market their produce. Literacy and numeracy training is particularly empowering Malawi's rural women, amongst whom education levels are disproportionately low.



George Ntonya

From left to right, Daniel Kampani, John Chidzani, Mazengela Saka and Kazembe Moloso