TAKING A CLOSER LOOK AT

TRANSFORMING SMALLHOLDER RICE FARMING

THROUGH ACCESS TO MECHANISATION IN MALAWI

FOOD FUND 1 2020 IMPACT CASE STUDY

Country: Malawi		
The business: Agricultural engineering and equipment distribution		
Location: Three branches in Blantyre, Lilongwe and Nchalo and a representative office in Dwangwa		
Deal type: Buy-out	**Investment date:** November 2013	**Exit date:** April 2020
Output: 2,350 hectares of land prepared per annum; 36 agricultural equipment and machinery units sold per annum; 3,600 kilowatts energy-generating capacity sold per annum as at end 2019	**Jobs:** 190 permanent jobs supported; 85 permanent jobs created and 18 temporary jobs supported	
Smallholders impacted: 6,152	**www.fes.africa** **www.agrilabmw.com**	

IMPACT SNAPSHOT
MPOSA RICE GROWERS CLUB

The Mposa community is located in southern Malawi within the Lake Chilwa wetland. In 2012, when the levels of Lake Chilwa receded, local fishermen took swift action and turned their hand to rice farming, forming the Mposa Rice Growers Club. After several seasons learning the trade, they agreed to work with FES and hire its small farmer-mechanised land preparation service through its EFD. These farmers say mechanised land preparation has transformed their rice production by increasing yields and incomes; it has improved economies of scale by expanding the area of land under production. FES mechanically prepared the land of 76 smallholder farmers – a total of 132 hectares – in the 2019/2020 season. This impact snapshot documents their stories and explains what has made FES' work at Mposa so successful.

Established in 1967, Farming and Engineering Services (FES) is the single largest investor in Malawi's agricultural equipment industry and a sole distributor for several well-known and trusted brands, including Massey Ferguson, Komatsu and Challenger. Operations incorporate the sale of agricultural and heavy equipment and parts; precision agricultural contracting services (such as land preparation and crop spraying); turnkey irrigation (design, installation, parts and servicing); as well as equipment leasing, maintenance and technical support.

The latest business expansions include the launch of the FES Emerging Farmer Department (EFD), focused on marketing and service delivery to emerging smallholder farmers – who make up an estimated 80% of the agricultural industry in Malawi – and AgriLab, an agronomic soil, water and leaf testing laboratory. This laboratory facility – launched in August 2019 – is the only one of its kind in Malawi and best-in-class on the continent.

The African Agriculture Fund (AAF also referred to as Food Fund 1), managed by Phatisa, invested in FES in 2013. From the onset, Phatisa was a key driver in the development and expansion of FES into new service lines and geographies (Zambia) and provided ongoing management support and board-level strategic direction. In 2020, AAF divested from FES to a consortium which includes Phatisa Food Fund 2 (PFF 2, a follow-on fund to AAF managed by Phatisa), Mbuyu Capital, Norfund (the Norwegian Investment Fund for developing countries), *Deutsche Investitions- und Entwicklungsgesellschaft* (a development finance institution and subsidiary of German KfW Group) and the FES Management team.

> 'Fully aligning with our investor, Phatisa, has resulted in superior growth and the roll-out of innovative customer-focused solutions. The support of the Phatisa team enhances FES' reputation as the agricultural specialist of choice in Malawi. In addition, impactful community-based initiatives were well supported by Phatisa and their assistance with strengthening corporate governance has led to a stronger, more resilient business overall.' **– Mike Aldworth, Group Managing Director – FES, 2019**

FOOD 2020 IMPACT CASE STUDY

INTRODUCING THE EMERGING FARMER DEPARTMENT

FES recognised the untapped potential of the smallholder sector and in 2018, established an in-house emerging farmer department to specifically scope and undertake projects with small-scale farmers. The FES EFD offers agricultural solutions to smallholder farmers and smallholder organisations under three main pillars: agronomy, irrigation and mechanisation, with both equipment and service provision adapted and tailored to the specific needs and context of smallholder farmers in Malawi.

AGRILAB

15
smallholder organisations
utilising the services of AgriLab

1,220
soil, leaf and water samples
from smallholder farmers tested

> 20
smallholders
trainings held

10
tailored analyses
with recommendations and in-field trainings delivered

3
mechanisation entrepreneurs
running mechanised land-preparation services delivery for smallholder farmers supported by EFD[1]

1,200 hectares
of smallholder land
to be mechanised by the EFD team by end 2020

> 150
drip irrigation kits sold
to smallholder customers (to irrigate > 100 hectares) this financial year

Emerging farmers irrigations partnerships
are in place with USAID Malawi Agriculture Diversification Activity, Promoting Sustainable Partnerships for Empowered Resilience Programme, Community Finance and Tradeline Corporation Group in Malawi

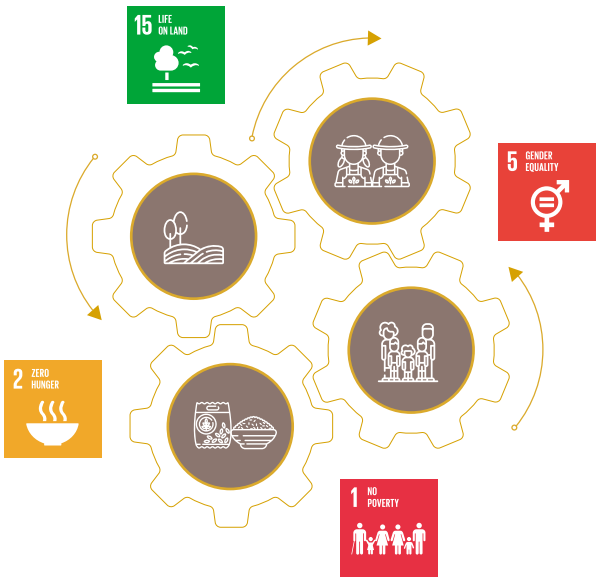
[1] *The three entrepreneurs started in July 2019 and continue to operate, supported – in part – by FES.*

FES believes mechanisation is an essential input to raise labour and land productivity in Malawi. The main benefits of mechanisation to smallholder rice farmers are as follows:

- increasing yields (through timeliness of operations and root penetration);
- ability to expand the area under cultivation and improve economies of scale;
- improving profits and reducing costs; manual labour can be about 40% more expensive on larger, aggregated plots while mechanisation allows for faster and better-prepared land and more timeous planting, increasing yields; and
- increasing labour productivity and reducing drudgery freeing up time for other activities such as small business or household tasks.

On average, yields for farmers at Mposa have increased by 52%, taking into account climatic conditions and holding all other variables constant. Profits have correspondingly increased, with many farmers reporting they have invested in the purchase of houses, vehicles and can now feed, educate and care for their families sufficiently.

> 'Some of us have been in rice farming since childhood but we have not been able to improve our lives. Since we started working with FES, I can buy a bicycle for the first time.' **– Kajoloso Yadi, Mposa rice farmer**



The gender gap in agricultural productivity in Malawi is estimated at 7.3% (United Nations Development Assistance Framework [UNDAF], 2019). Production technologies, delivering yield increases, therefore impact on female farmers to a greater extent. Mechanised land preparation also reduces labour requirements, easing the drudgery of farm work and allowing greater time for off-farm activities. This is especially relevant for women who are responsible for the majority of production tasks. Free time can be used for household tasks such as water and fuel collection – which otherwise may fall upon children – and for other income activities such as small business operations.

'Being a woman, I was afraid I would not manage to continue with farming when my husband died, but the coming of FES made me realise I can do it just fine. As a single mother, it's easy for me to manage my household through the benefits I get from using FES tractors. From the sales last season, I'm able to pay school fees for my daughter. Though I am a widow, I don't rely on anyone when it comes to finances.' – **Rose Kachitsa, a single mother who attributes her continued farming success to agricultural mechanisation**

Food security is a critical issue in Malawi. In the 2016/2017 lean season, the worst in a decade, over 37% of the population (6.7 million people) suffered chronic or acute food insecurity (UNDAF 2019). At Mposa, most farmers keep a portion of the harvest for household consumption. This, together with the good returns from the crop and its sale, has allowed the farmers and their households to emerge from food insecurity.

Above left to right: Austin Nyalugwe, Zuwedi Yadi and White Mwale, members from the Mposa Rice Growers Club.

They (FES) are always timely when delivering their services. When they tell us they will come on a specific day to cultivate the plots, they always stick to that plan. This is helpful because we can plant early as we are not delayed.

FES activities are organised; for instance, they made us get registered and we are divided into different groups where we sometimes come together to talk about different challenges and success stories we are facing as farmers and help each other with solutions.' **– White Adam, Mposa rice farmer**

FES believes in and promotes conservation tillage; an agricultural-management approach that minimises the frequency and intensity of tillage operations to promote economic and environmental benefits. These include a decrease in greenhouse gas emissions, less reliance on farm machinery and equipment and an overall reduction in fuel and labour costs. Conservation tillage methods can improve soil health, reduce runoff and limit the extent of erosion. The conservation tillage practice which FES promotes for rice farming is the method of ripping rather than ploughing.

'We have bumper harvests now because the tractors do not damage the soil when tilling the land, the soil is properly mixed leaving the soil very rich such that the rice crop grows so well causing the yields to be good...the tractors do not tamper with subsoil but only mixes the topsoil.' **– Williams Ligomba, Chairman, Mposa Rice Growers Club**

FIVE STEPS FOR SUCCESSFUL SMALLHOLDER ENGAGEMENT

1. Understand the context. FES utilised the AAF Technical Assistance Facility[2] to undertake a full scoping exercise of the possibilities of developing smallholder mechanisation service delivery models.
2. Time and resources must be made available to secure buy-in to a project through dialogue and demonstration with the targeted group of farmers.
3. Ensure an appropriate solution is being offered FES undertakes comprehensive monitoring and evaluation activities to track the impact and relevance of the service it is offering.
4. Manage expectations through consistency and communications.

   'They [FES] make frequent consultation with the aim of trying to learn about the challenges we are facing. I'm seeing this as a good thing because it has helped to strengthen our relationship.' **– Williams Ligomba, Chairman, Mposa Rice Growers Club**
5. Deliver on promises. This is critical to emerging farmers who have often been let down by projects and other stakeholders with whom they engage.

[2] *Thomson, A. and Machingawuta, M., 2019, AAF TAF Impact Brief 2011 – 2018, South Africa, www.aaftaf.org*

WHAT NEXT FOR SMALLHOLDER MECHANISATION?

FES plans to expand its mechanisation service at Mposa and in surrounding rice-producing communities. It would also like to take the model to scale, replicating in many localities, nationwide and regionally.

The FES team continues to develop innovative partnership and service delivery models to enable smallholder farmers to gain access to agricultural mechanisation technologies for example, through partnering with entrepreneurs or off-takers that can provide the required service on credit to smallholder farmers.

Muhamadu Mambala, Treasurer, Mposa Rice Growers Club, harvested an average of 7.4 tonnes of rice between the 2018/2019 season and the 2019/2020 season. This is up an additional 2.6 tonnes from 4.8 tonnes harvested prior to FES' involvement.

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