

Farm Africa reduces poverty by unleashing African farmers' abilities to grow their incomes in an environmentally sustainable way. www.farmafrica.org

Chair: Richard Macdonald CEO: Nicolas Mounard

ACHIEVING IMPACT

I am delighted to introduce to you Farm Africa's first Annual Impact Report. In the following pages we want to share with you our learning of how our work has effected change, and highlight the economic, social and environmental impact of our projects across eastern Africa



While all of Farm Africa's projects have the end goal of growing rural incomes in an environmentally sustainably way, the specific goals of each project are unique and no single measure of success is applicable across the board. Much of the nature of our work is context-driven, and our attempts to capture real impact on people's lives will vary depending on whether they are a farming family, the family of a day-labourer benefiting from the stimulation of markets, or a wife within a male-headed household. Measuring our impact is therefore no mean feat, but a challenge that we aim to rise to and report on each year with this Annual Impact Report.

In 2015 we're proud to have learnt that our impact has ranged from increasing the yields and incomes of fish farmers in Kenya, to reducing deforestation in the Bale Mountains of Ethiopia, to helping Tanzanian sesame farmers improve their practices, through cost-effective and innovative use of technology. We also learnt a lot from an evaluation of a project in Ethiopia that focused on helping women have a greater say in economic decisions in their homes and communities.

These projects might all look very different, but all of them are helping farming families in rural eastern Africa to escape poverty, while conserving the environment for generations to come.

None of this work would have been possible without the generosity of Farm Africa's supporters, to whom we are very grateful. With your continued support we will achieve even more impact and move closer towards our vision of a prosperous rural Africa.

Rem new

Richard Macdonald CBE Chair

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HOW WE WORK

Farm Africa's holistic approach recognises that agricultural step change is not enough to build rural incomes for the long term. To ensure sustainability we must explore ways to manage and conserve natural resources, and ensure long-term profitability through linking smallholder farmers with local, national and export markets.

We focus on three key areas of expertise that together provide an effective and sustainable way to combat poverty in rural Africa: **agriculture**, **environment** and **marketing**.

AGRICULTURE

We build strong agricultural systems that focus on technology, sustainable land and water management, climate-smart agriculture, and building farmers' knowledge.



ENVIRONMENT

We make protection of the local environment profitable for those with the biggest stake: communities. Our work in natural resource management focuses on models of forest and rangeland management, as well as wider management of ecosystems.



MARKETING

We focus on the financial viability of the farmers' businesses. We support farmers to get their produce to market, help build viable agribusinesses in key value chains, and enable those businesses and farmers to gain access to finance.

Population growth means that many of the countries we work in have a large young population, and as a result, our work looks towards making agricultural production an attractive career to **young people**.

We acknowledge that the vast majority of farmers that come into contact with Farm Africa are women. We are committed to empowering women economically and put a special focus on how we can help **women farmers** grow more, sell more and sell for more.

We also generate credible **evidence** of the impact of our projects so that others can adopt our approaches on a larger scale.

Farm Africa's work aligns with the UN's Global Goals for Sustainable Development (SDGs), which aim to end extreme poverty, hunger, inequalityand injustice, and fix climate change by 2030. We are committed to making these goals a reality.



WHERE WE WORK

Farm Africa's project locations in 2015:

ETHIOPIA

- 1. Food security in Tigray
- 2. Forest management expansion
- 3. Preserving ecosystems in Bale
- 4. Growing profitable coffee
- 5. Climate-smart agriculture
- 6. Market approaches to resilience
- 7. Community timber plantation development
- 8. Spice production and marketing
- 9. Rangeland management
- 10. Labour-saving technologies for women
- 11. Climate-resilient food security
- 12. Community-based seed production

KENYA

- 13. Sorghum and green grams
- 14. Sustainable seed production
- 15. Aqua shops
- 16. Urban farming
- 17. Integrated community empowerment
- 18. Poultry farming and marketing
- 19. Supporting young farmers
- 20. Sidai



TANZANIA

- 21. Sustainable forest management
- 22. Orange-fleshed sweet potato production
- 23. Sesame production and marketing

UGANDA

24. Katine community development

REGIONAL

- 25. Maendeleo Agricultural Enterprise Fund
- 26. Agriculture to Nutrition Initiative (ATONU)

Farm Africa's income in 2015: £12.1 million
Farm Africa's expenditure in 2015: £12.7 million

| 1.8 m | 1.8 m | 1.5 m | 1.4 m | 1.4

The people we reach come from a range of backgrounds, and the term 'farmer' is often an inadequate way to describe them. Our projects touch the lives of men, women and children, who may belong to farming families, who may rely on specific ecosystems we have helped to transform, or who merely have benefited from the growth in a specific value chain through obtaining a job.



A sesame farmer inside her cooperative's warehouse near Babati, Tanzania. Their harvest is stored there before they sell it in bulk for a better price. Photo: Jonathan Banks

ECONOMIC IMPACT

Economic impact refers to how our work leads to higher household incomes; how we help families to build up savings or manage their assets better; and how they benefit financially from better functioning markets or agricultural systems. Sometimes, it can refer to farmers' ability to increase production, or add value to their production, for example being able to sell ground pepper for a higher price than whole peppercorns. Higher incomes for farmers mean higher spending power and a better quality of life: increased earning potential may mean the ability to afford school books or uniforms for children or more nutritious food for the whole family.

From subsistence farmers to emerging small and micro-enterprises and their employees, everyone we work with is part of a market and as a result, engaging with and improving markets is key to our work. All Farm Africa projects support farmers to earn higher or more reliable incomes and to build their resilience to economic shocks – not just today, but for the long term. We do this by improving farmers' skills, knowledge and information so they can increase the quantity and quality of crops and livestock produced and find reliable local, national or international buyers for their surplus produce.

The following case studies demonstrate how we test new approaches to maximise our economic impact on households, technologies, systems and markets.

ECONOMIC IMPACT HOUSEHOLDS

How our support to sesame farmers has helped them grow incomes

Tanzania ice.

Since 2008 we have been helping Tanzanian sesame farmers acquire the skills and knowledge to grow more sesame and sell it for a higher price.

Increasing quality and volume of production

We worked with farmers' groups to test different types of sesame seeds to see which produced the best harvests, and encouraged them to join an officially registered co-operative so they could access loans from the Tanzanian government to buy more of the improved seeds. We provided training in good agronomic practices, sorting and cleaning to further boost the quality of the harvest.

Accessing higher value markets

Selling in bulk is key to being able to sell for a good price. The cooperative warehouse offered individual farmers somewhere to store their harvest before it was sold in bulk, and we helped farmers' co-operatives to secure contracts to sell large amounts of sesame for a good price.

We helped farmers to gain access to the latest sesame market information, including price trends, seed prices, buyer locations and export prices, and share this information within their communities, so they knew what was a good deal.

We supported farmers to measure the oil and moisture content of their sesame seeds so they could assess the quality of their own output better, and thus negotiate with buyers from a stronger position. We also helped them improve their marketing techniques and packaging.

Results

We surveyed some of the 5,520 smallholder farmers in Babati district who we worked with between November 2011 and October 2014 and found that the project brought about marked increases in the quality and volume of sesame grown, which in turn led to significant rises in farmers' incomes.

Sesame production increased substantially from 0.25 tonnes per hectare to 0.98 tonnes per hectare.



Lead farmers' average incomes more than doubled from TSh 647,000/- (£247) to TSh1,330,000/- (£507) between 2011 and 2014, while adopter farmers' income increased by 50% from TSh 560,000/- (£214) to TSh 870,000/- (£332).





Post-harvest losses fell from 40% to 20% per hectare, while the purity of sesame improved from 80% to 98.3%.



ECONOMIC IMPACT TECHNOLOGY

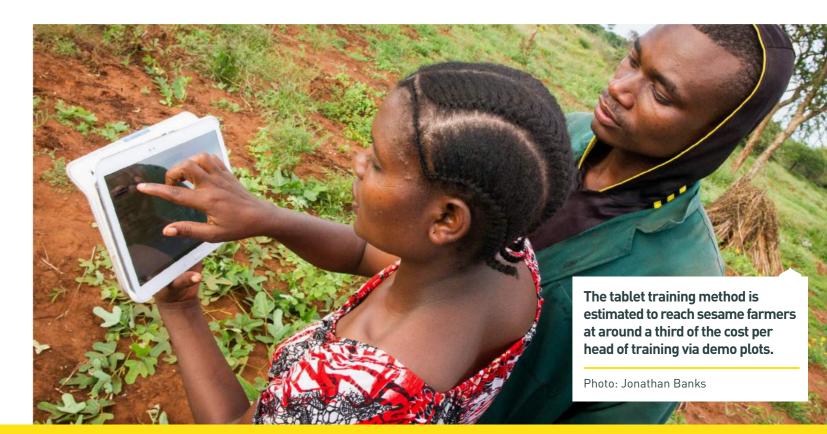
How our use of tablet computer training modules dramatically improves the delivery of farmer extension

By using a multiplier approach in our training we can effectively pass on knowledge to a large number of farmers and enable training sessions to continue even after Farm Africa's support ends. In the sesame project in Tanzania, lead farmers from communities are trained intensively in sesame growing and harvesting techniques using open-air demonstration plots, then share their knowledge with other farmers from their community, who we call adopter farmers. By the end of the second phase of our sesame project 5,520 farmers had been trained through our direct training of just 920 lead farmers.

Despite these successes, this approach has challenges that may limit its ability to deliver at scale. Using demo plots requires participants to travel to the site at a specified time. This can be particularly challenging for women, who often have many other household responsibilities. Training also has to be conducted at the right time in the growing season, which often means a limited window in which to train lead farmers, have them train the adopter farmers and ensure everyone has time to implement the new practices.

Introducing tablet computers

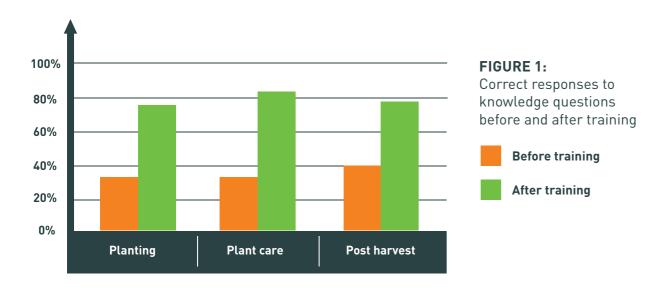
In 2015 we tested the use of training delivered via tablet computers, as an alternative to visiting traditional demo plots. As the project was already increasing sesame production and revenue for trained farmers, the pilot focused on what the farmers learnt from the tablet training course and how they applied it. The evaluation looked at whether using mobile technology would allow us to reach large numbers of farmers at the right time, and still provide training that is as effective as conventional training methods.



Working with the Cambridge Malaysian Education and Development Trust and the Malaysian Commonwealth Studies Centre we developed a series of training modules explaining best practice for each stage of the sesame production cycle. Ten lead farmers were trained in operating the tablets and these 'portable demo plots' were taken around to sesame farmers in their own homes. Participants viewed interactive videos in their local language, and their understanding was tested with inbuilt learning questions. Each farmer was visited several times as new modules were developed, giving them the chance to go back and repeat sessions, as desired.

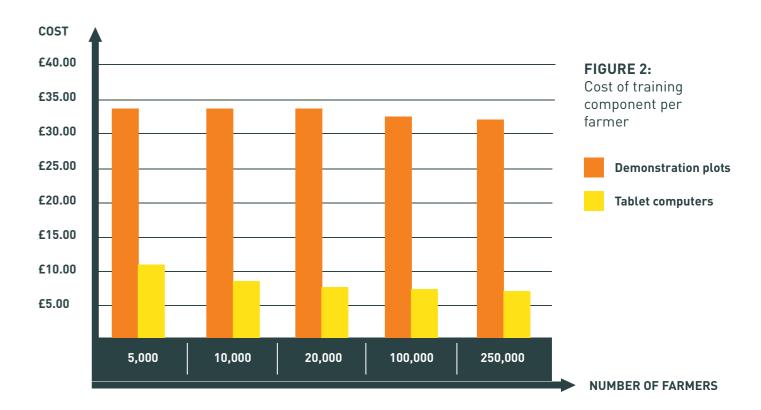
The lead farmers collectively reached 499 sesame farmers, of whom 49 were interviewed on their knowledge of sesame cultivation and their experiences of using the tablets. Data was also gathered from a comparison group of farmers trained using demo plots. Our evaluation showed that the knowledge of both groups of farmers rose significantly from an average of 36% of farmers correctly answering questions about sesame growing before the training to 71% correct answers for those trained via demo plots and 78% in the tablet group. This shows the tablet-based training is at least as good as the traditional sort.

Almost everyone interviewed (96%) introduced changes to their farming practices after the tablet course, mostly at the land preparation and planting stages. A large majority (76%) of respondents reported an increase in their income from sesame farming due to the the improved farming practices they'd learnt.



Cost savings

An initial analysis of potential cost savings indicates that using mobile technology could dramatically reduce the cost of training farmers. The tablet training method is estimated to reach farmers at around a third of the cost per head of training via demo plots, while being at least as effective as training using demo plots. This is an important finding for governments and companies wishing to train large numbers of farmers. We also found that there were additional advantages which could mean that over time, the impact of training by tablet is likely to be higher, particularly for female farmers who may be less able to devote a whole day to travelling to demo plots.



Tablets offer women farmers the opportunity to view the training modules at home at times that are convenient to them. Going forward, we will explore whether we can deliver training via mobile phones, which are in greater demand than tablets in rural Tanzania, the extent to which software requires an internet connection, and how to design the materials to ensure they are as effective as possible with female farmers. It is clear that additional study is required into how mobile-based training can become even more effective, but this initial learning has been valuable in informing our wider work.

Halima Kilolo is a lead farmer who trained other sesame farmers using a tablet computer.

I approach the farmers and make them understand what the tablet is and what it can do.
I start on the land preparation module, taking them through the different options, how to use a hoe, a tractor and how to cultivate on steep slopes.

Then I take them through the planting process, how to space the plants and rows. I tell them about planting in rows and how it is better than broadcasting or throwing the seeds around.

Four weeks after germination, they must weed and begin plant care, making sure they avoid disease and check against pests – we teach them how to control them.

Next it's on to the harvest module and teaching about how to cut sesame and to arrange in termite-resistant stacks. After that we teach them how to clean and store it in a dry place to avoid infestation by bugs and the growth of micro-toxins.

One of the challenges is some farmers don't know how to read or write. The use of pictures helps, as does taking more time to make sure they understand. Batteries are another challenge. If I train two farmers then I have to go back home and charge [the tablet], which is a waste of time.

ECONOMIC IMPACT MARKETS

How our social enterprise offers affordable livestock and crop inputs in rural Kenya

Livestock and agriculture in Africa play many different roles in supporting families and are particularly important for low-income households. Increasing income in urban areas is driving the demand for animal products and opening up new opportunities for livestock farmers to make money. Yet farmers in rural Kenya often face huge challenges in taking advantage of these growing opportunities as they lack good technical advice, access to quality inputs (drugs, feeds, vaccines, seeds, fertilisers etc) and access to markets.

Three key market failures are observed in the livestock and agricultural sector in Kenya:

- Lack of knowledge about the potential benefits of quality inputs
- Poor quality input markets: in Kenya, 60% of livestock and crop inputs are sub-standard, and 85% of input retailers are unqualified
- Lack of competition in input markets

Access to animal health services is particularly poor in arid and semi-arid lands, where 70-80% of Kenyan livestock live. The vaccines and veterinary services that are available tend to be ineffective and poorly administered, resulting in poor livestock performance. A quarter of Kenyan livestock die each year from preventable diseases.

Sidai set up to transform the agricultural input market

In 2011, Farm Africa set up Sidai, a social enterprise that provides high-quality inputs including feed, veterinary medicines, seeds and fertilisers, and livestock and veterinary services to pastoralists and farmers in rural Kenya.

Sidai's products and livestock services are provided at fair market prices through a network of 130 branded outlets and 350 stockists in remote locations, serving farming communities whose needs have often been neglected by commercial suppliers. All Sidai's staff are either vets or veterinary technicians (with minimum two years' training, usually three), well qualified to provide technical advice at the point of sale and on farms. On-farm support includes vaccination, artificial insemination and herd health packages.

Kenya

Pistribution hubs

Outlets





Impact on Sidai customers

Critical lessons have been learnt over the last five years and Sidai has seen a number of successful outputs to date. Sidai currently serves 100,000 regular customers, supplying them with the goods and services they need to build profitable farming businesses. Nearly 40,000 farmers have been trained directly by Sidai staff. By working in partnership with agricultural TV series Shamba Shape Up and its call centre iShamba, Sidai's television and radio training sessions reach eight million people. Sidai has vaccinated seven million animals and has been successful in introducing a range of vital health products to remote and underserved regions of northern Kenya.

Although we have not systematically collected data about the household impact that Sidai has brought, we have seen anecdotal evidence that Sidai has brought about:

- Improved household security from lower livestock mortality
- Better nutrition due to an increased supply of animal products and crops
- Increased income from improved access to markets

Farmers' productivity has also improved considerably since they have engaged with Sidai. One key example is the work Sidai has been conducting with GALVmed to distribute the vaccine for East Coast Fever (ECF). Sidai has trained 55 staff who have since vaccinated 30,000 cattle. Farmers who have accessed this vaccine through Sidai have seen livestock losses falling from 30% to 5%, and these farmers now have less need to buy acaricides to deter the ticks that carry the disease, so save on costs in the long term. One livestock keeper explained the benefits:

We used to lose about 16 cows to ECF every year. Our neighbours keep Borans and Zebus from pastoral areas so we are constantly challenged by the Brown Ear ticks that carry the disease. We started to work with Sidai in 2014 and they helped us to understand the importance of vaccinating our cattle. After two years we have about 30 extra cattle which are very good quality and we have been selling them for between KSh 180,000 and 240,000 each. I am very happy to work with Sidai – they came to my farm and explained everything we must do to protect the animals.

Improving access to markets

Sidai has been able to open up new, more efficient, value chains for its customers. One example of success is a partnership with Brookside Dairy where farmers have been able to access Sidai inputs through a milk check-off system: farmers bring milk to the plant and receive credit that can be used to purchase Sidai inputs. At the end of Brookside's standard payment terms (30 days), the farmers receive payment on any unspent credit. This provides immediate access to quality inputs and reduces selling through informal traders, who typically offer lower prices for milk. In a pilot scheme, farmers' milk sales to the dairy went up from 1,500 litres to 5,000 litres in three months.











Sidai's model has also provided new opportunities to agricultural entrepreneurs, helping them to build successful businesses supplying high-quality supplies and services to farmers and livestock keepers. One veterinarian who now owns a successful Sidai franchise told us:

The smart new branding indicated to customers that I offer a professional service. I am also able to buy a wider range of products through Sidai at better prices than I got before. Sidai helped me organise farmer training, helped me reach many more farmers and increase my business. I am very happy I joined Sidai.

Sidai believes that delivering quality inputs and livestock services through a well-structured and competitive private sector is key to improving incomes, welfare and household security in rural Kenya. By giving farmers and livestock keepers the support they need to generate a consistent, profitable yield, Sidai improves farmers' financial security, food security and resilience to climate extremes, and helps them break free from dependency on emergency aid. Sidai is also beginning see its wider impact on the market, with competitors starting to drive up quality standards and the services provided to farmers improving across the board.



ENVIRONMENTAL IMPACT

Environmental impact refers to how our work reverses deforestation, improves soil and water management at farm level, and improves the management of grasslands where livestock graze. Trees, water and healthy soil are vital ingredients for strong agriculture and healthy rural economies, both now and in the future. Farm Africa supports rural communities in sustainably managing their vital natural resources, such as forests, and in making a living from them, so that they have an economic incentive to continue protecting the environment.

The following example demonstrates how we have made conservation of trees pay for forest communities in Ethiopia.

ENVIRONMENTAL IMPACT FORESTS

How our REDD+ project has improved the health of forests in Ethiopia

Deforestation and forest degradation account for nearly 20% of global greenhouse gas emissions¹. Reducing Emissions from Deforestation and Forest Degradation (REDD+) is an international initiative that incentivises countries to reduce emissions from forests and enhance forest carbon stocks. In a project running from 2012 to 2016, Farm Africa has been working with the Ethiopian government and local NGO SOS Sahel to establish a REDD+ scheme in more than 330,000 hectares of forest in the Bale Mountains Eco Region in south-eastern Ethiopia. The project area is home to approximately one million people and the ecosystem holds global significance for its biodiversity, watershed protection and the long-term storage of carbon dioxide that the trees provide.

This scheme builds on 20 years of Farm Africa's 'participatory forest management', work in the area that encourages local communities to manage forests sustainably and profitably by setting up forest-friendly businesses, instead of cutting down trees for timber or firewood, or clearing the forest for agricultural or pastoral expansion.

Finding ways to make a living from what the forest naturally provides is a win-win situation. Not only do local communities reap dividends from producing forest coffee, honey, mushrooms and raffia, but millions more people are protected from the devastating impacts of forest loss, such as loss of biodiversity, increased carbon emissions and a reduced water supply in surrounding areas.

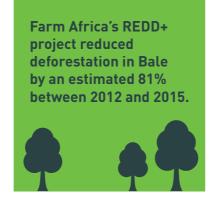
The REDD+ scheme enables communities and the government to generate carbon credits from their forest management that they will be able to sell, generating income that can be invested in further developing forest-friendly businesses.

Assessing the impact on the forest

Farm Africa conducted a study in 2015 to assess whether the levels of deforestation in the project area had reduced in the three years since the project began.

Satellite images² covering the total project area, including the buffer zone, were downloaded and analysed. Field visits were undertaken to validate the classification of land use identified in the images.

The satellite images from 2012 and 2015 were compared to assess deforestation rates over the period. The project impact is then estimated by comparing the observed deforestation rate with a projected 'business as usual' deforestation rate that would be expected if the project had not taken place. We applied a standard REDD+ methodology, which bases the projected deforestation rate on the historical deforestation rate for the preceding decade (2000-2011).



Ethiopia

We found that for both the humid and dry forests within the project area, the deforestation rates had decreased markedly since the project started. Without the project, it was estimated that around 5% of the total forest area would have been lost between 2012 and 2015. This compares to an actual observed reduction of only 1%. The results are summarised below:

FIGURE 3: Area of forest cover in project area 2012-2015

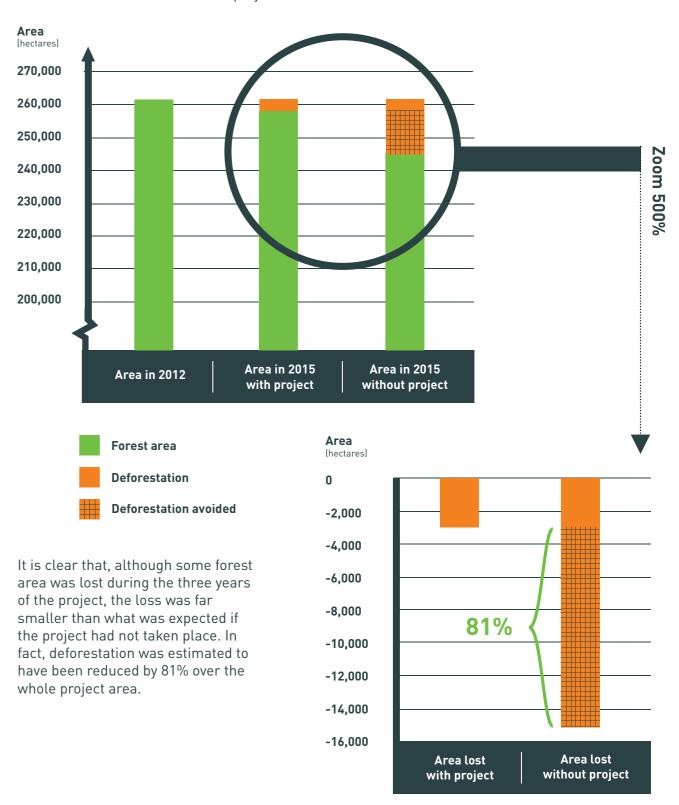


FIGURE 4: Deforestation avoided 2012-2015

These findings were backed up by Farm Africa's thorough consultations with the local communities in Bale. Focus groups confirmed the view that deforestation had reduced considerably in the period. Community members explained that when severe fire damage occurred in the boundary of the park in 2015, no outbreaks of forest fire were seen in the areas of forest managed by the organised communities, due to an increased sense of forest ownership and the development of local forest institutions with clear responsibilities to look after the forest, including preventing and containing outbreaks of fire.

Based on the analysis of deforestation avoided, it is estimated that around 5.7 million tonnes of carbon dioxide emissions have been avoided between 2012 and 2015. This means we've saved a carbon footprint roughly the same as flying every man, woman and child in Scotland to New York and back. Or the equivalent of almost 15,000 years of watching TV, all day, every day.

Ethiopia has bold and ambitious plans to reverse deforestation and degradation of forests and agricultural landscapes across the country. These efforts have the potential to make a huge contribution to global emissions reduction. Farm Africa's project aims to form the basis of a national REDD+ mechanism for community-based forest management, where these reduced emissions can be converted into carbon credits and sold on international markets, with the revenues being shared on a 60:40 basis between communities and the government. At the current price of \$3.80 per tonne of voluntary carbon credits, Ethiopia stands to gain some \$21 million in revenue from their sale once finalised. Our experience proves that forest management is most effective when local communities are fully involved, and benefit economically from their stewardship of the precious resources.

² Landsat data downloaded from United States Geological Survey website. Available at http://www.usgs.gov (Accessed 23 May 2016).



¹UN-REDD Programme - about REDD+. Available at: http://www.un-redd.org/aboutredd (Accessed: 23 May 2016).



SOCIAL IMPACT

As well as environmental and economic impacts, many of our projects are designed to generate broader social impacts, recognising that an individual's wellbeing is driven not just by how much they earn or how secure their natural environment may be.

The following example highlights how a Farm Africa project in Ethiopia improved not only women's earning power but also their confidence and contribution to decision-making within their households.

SOCIAL IMPACT GENDER

How we have boosted vulnerable women's earning power and status in Ethiopia

Farm Africa's Rural Women's Empowerment Project (RWEP) supported vulnerable women in the Oromia and SNNP regions of Ethiopia to increase their earning power and status, and aimed to reduce violation of women's rights. Implemented between 2009 and 2013, the project had three main components:

- Farm Africa staff helped women in the community organise themselves into groups, lent them small livestock such as sheep and goats, and gave them support to rear them. Each participant was required to pass on two of their livestock's offspring to another woman, so over time more women benefited from the project.
- Village Savings and Loan Associations (VSLAs) brought together groups of women without access to formal financial services to save together and borrow from the savings. In the VSLA model, the accumulated savings and profits are distributed among the members at the end of each year.
- Female community-based legal advisers (CBLAs) were trained to advise women on their legal rights and to provide an alternative means of arbitrating and resolving domestic conflicts.

An evaluation conducted in 2012 found that the project had made a significant difference in terms of improving women's access to credit services and improving their ability to engage in income-generating activities, thus increasing their income and ownership of productive assets, such as livestock. The role of women in important financial decisions at household level was also shown to be improving. Another outcome noted was a significant decline in the incidence of female genital mutilation, child marriage and other cultural practices that are harmful to women and girls.

While these findings were encouraging, we wanted to better understand whether the project had had any lasting impacts on the status of women in the target communities and what we could learn for our future work. To support this, we conducted a follow-up evaluation to revisit project communities in 2015.

Improved legal knowledge

We were delighted to have found a reduction in the harmful cultural practices mentioned above. We found that women now have easier access to legal advice from the community-based legal advisers. Women living in the project area, even those who didn't directly take part in the project themselves, were found to have significantly more accurate information about legal provisions that protect women; more women are now aware of their rights and claim their share of property during divorce.

41% of women who took part in the project were considered empowered in comparison to only 16% of women who didn't participate in the project.

Ethiopia



Reduced incidence of violence against women

The presence of community-based legal advisers has also had a deterrent effect on acts of violence, which are now more difficult to hide from the justice sector. People who participated in structured community discussions stressed that harmful traditional practices and violence against women are declining.

About 50% of the community-based legal advisers have been engaged by the government (through Ministry of Social Affairs) to provide support at community level to people that the current network of social workers are unable to reach due to capacity constraints. In some cases, they are elected members of local (kebele³) government. The government has set a quota of 30-50% seats for women in local, regional and national political positions, to enhance the participation of women in politics. More women who are actively participating at community level are benefiting from this opportunity. As one community-based legal adviser from SNNPR stated, "beyond all the work, I can say I have grown as a person and have more confidence and skills than before".

Increased decision-making

We found that the project had significantly boosted women's empowerment by making them more successful at generating income and savings. Findings from an assessment of women's empowerment found that 41% of women who took part in the project were considered empowered in comparison to only 16% of women who didn't participate in the project. Project participants attributed this result to their increased employment opportunities and increased ability to contribute to household income.

Both women and men in the project areas linked women's increased earning power to their empowerment: 82% of women who took part in the project in Oromia and 91% in SNNPR reported that their decision-making powers had increased as a result of their increased contribution to household income. Rises in women's contributions to household incomes and decision-making were also seen, but to a lesser extent, among women in the area who didn't take part in the project.

25 26

Project participants were also found to be more confident in speaking in public and participating in community discussions, as compared to other women in the area. In focus group discussions, one women commented:

A woman who speaks in public used to be considered as 'a difficult woman'. We now understand that is not true. Not speaking is not a virtue anymore. We are trying to express ourselves more [...]

But we now know that unless you speak, you are just a nobody. There is change now, a very big change. Now, whenever NGOs or government officials come, they ask us questions. They insist that we speak, so we try. We see women who speak up go to places [...].

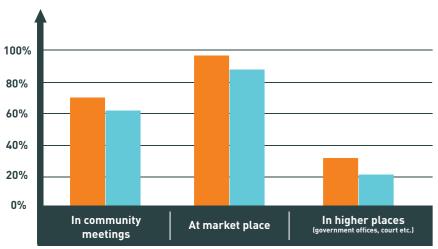


FIGURE 5: Confidence in public speaking, percentage of women agreeing 'I can speak comfortably' (SNNPR project area)



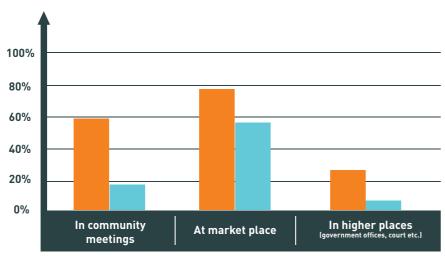


FIGURE 6: Confidence in public speaking, percentage of women agreeing 'I can speak comfortably' (Oromia project area)



³ A kebele is the smallest administrative unit of Ethiopia, similar to a ward.



LEARNING AND ADAPTING

In rural development it is rarely possible to know exactly what approaches will work best in advance. Farm Africa brings together indigenous knowledge and technical expertise to devise solutions that are then developed over time. Most of the examples on the previous pages demonstrate the success of tried and tested approaches, where we have been able to support target communities over a sustained period – often through multiple phases of a project. This longer term engagement allows us to really get to know a community and to work together to respond to changing circumstances and new knowledge.

The following example demonstrates how we applied this adaptive learning approach in 2015 to our work in Kenya's fish farming sector.

LEARNING AND ADAPTING FISH FARMING

How we adapted our fish farming approach in Kenya to strengthen the fish value chain

Fish is a vital source of healthy protein and essential nutrients.

Unlike catching wild fish from rivers, lakes or the sea, fish farming offers significant economic benefits without relying on already dwindling natural stocks. The majority (76%) of total Kenyan fish production comes from Lake Victoria⁴, but overfishing and pollution have caused fish stocks to plummet, steadily pushing up the price of fish. Without any change in current levels of wild caught fish, we estimate there is likely to be an annual deficit of 10,000 metric tonnes of fish by 2020.

The Government of Kenya has identified fish farming, or aquaculture, as one of the best options to replace declining production from wild fisheries and to meet the growing demand for fish, while creating new economic opportunities for farmers. The national development strategy actively supports the aquaculture sector, aiming to increase fish production by 10% per year.

In 2009, the government launched its Economic Stimulus Programme (ESP), which promoted an expansion in smallholder aquaculture. An estimated 48,000 ponds were dug nationwide and subsidies were introduced for necessary inputs such as feed and fingerlings (young fish).

The provision of subsidies naturally led to an increase in fish farmers entering the sector, but the lack of commercial providers of quality, affordable inputs, coupled with low productivity, limited technical knowledge of fish farm management and lack of business skills has left many farmers unable to make their fishponds financially viable. Average yields have remained well below the level required to justify investment, resulting in many fishponds being abandoned.

Higher yields and incomes

Farm Africa has been supporting the aquaculture sector in western Kenya since 2011 and, despite the challenges, our experience shows that fish farming has the potential to be highly profitable and lead to a real step change in farmers' income. A farming household with four ponds can exceed the national poverty line (KSh 1,900 per person per month) for a family of five within a year.

Our first 'Aqua Shops' project was launched soon after the Economic Stimulus Programme was introduced, establishing one-stop shops where fish farmers could buy quality inputs and get technical advice. The initial phase supported 12 local entrepreneurs to establish Aqua Shops in four counties in the Lake Victoria Basin. The entrepreneurs successfully filled the gaps in local aquaculture markets, supplying up to 3,000 local fish farmers with good quality and affordable inputs, training on effective fish farming practices and support services, such as pond construction and marketing.

In the first two years of the project, yields from fish farmers accessing the Aqua Shops increased by up to 215% and their incomes rose by over 50%.

Kenya



Encouraged by the findings from this pilot, we designed and launched a new phase of the project, aiming to expand the model to 35 Aqua Shops to test the feasibility of a franchise model at scale. An in-depth feasibility study on the model was commissioned as part of the project.

What we learnt

In 2014 we found strong evidence that demand for fish and fish products would continue to grow. The Kenyan government anticipates that due to population growth and shifts in consumption patterns, annual per capita consumption of fish is likely to increase fourfold (from 2.5kg to 10kg), and that projected demand may reach as much as 161,000 metric tonnes by 2020. Our analysis found that tackling gaps in access to inputs and technical services remains highly relevant for supporting a vibrant aquaculture sector in Kenya. However, it found that standalone Aqua Shops were unlikely to become self-sustaining in the short term. Specific challenges identified included:

- Standalone shops selling only fish farming supplies tended to face cashflow problems, making it difficult to access credit, leading to poorly stocked shops. This limited their ability to build a strong customer base.
- A lack of post-harvest infrastructure (such as harvesting, cleaning or distribution services) made it difficult for fish farmers to reach bigger markets.
- Government-subsidised training and inputs had distorted the market, making farmers reluctant to pay for quality fish farming inputs.

Using this learning, we decided to change tack: instead of establishing more standalone Aqua Shops, we would work with existing agro-dealer businesses to introduce or expand their range of aquaculture products and services. This would allow entrepreneurs to benefit from economies of scale and allow farmers who engaged in other agricultural activities alongside fish farming to buy all the supplies they needed for their business in one place.



We're working to get the aquaculture sector to where dairy is in Kenya – it has huge potential. If the socio-economic conditions remain favourable, our projects could directly benefit 9,500 farming households, and provide fish for an estimated 1.2 million consumers.

- Nadia Martinez, Farm Africa Country Director, Kenya



Current approach and successes

By the end of 2015, we had successfully partnered with 28 agro-dealers to add fish farming stock to their stores, making a total of 56 functioning Aqua Shop outlets. Their total customer base had risen to almost 7,500 fish farmers in five counties, 44% of which are women.

The shop owners have been trained in basic fish farming practices and how to pass on this knowledge to their customers. They also received training in input sales, including on the different types of feed, how and when to apply which kind of feed, and why good quality feed is important. To help ensure the sustainability of the new approach, they have also been trained in business development and encouraged to invest in more opportunities along the fish value chain.

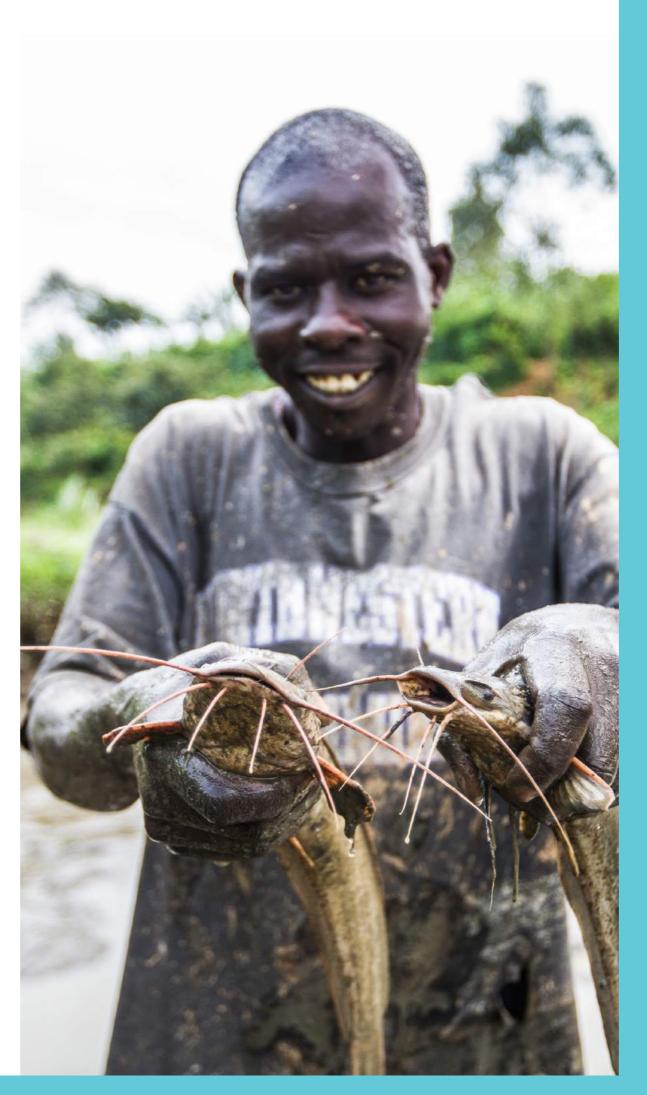
As well as providing fish supplies and farming advice, these shop owners have been acting as wholesalers, taking in the fish that the farmers produce and reselling it to larger buyers. This allows the farmers to access more stable markets by consolidating their small harvests and therefore achieve better prices.

Through a survey of randomly selected fish farmers in the project areas we found that before Farm Africa's project started, farmers harvested less than 550 mature fish per pond. After two years this had increased to 745. This 35% increase has been attributed to improved pond management, including proper feeding, protection from birds and frogs, and cleaner ponds improving the health of the fish. We also found that incomes from fish farming rose by 63%, driven by both higher prices and better quality produce. The ability to use Aqua Shop owners as wholesalers contributed to this.

Next steps

Further analysis found that there is considerable variation in the prices individual fish farmers are achieving. Those with fewer ponds tend to do less well, suggesting there may be a minimum initial investment required to make smallholder aquaculture worthwhile. Moreover, while the new approach has helped to ensure that fish farmers have access to quality inputs and knowledge locally, constraints still exist in ensuring the shop owners themselves can access quality aquaculture inputs reliably.

In 2016 we launched a new project funded by the Dutch Government, building on these lessons. The new Kenya Market-led Aquaculture Programme (KMAP) targets farmers with at least three ponds, and specifically targets feed and fingerling producers as well as input suppliers directly.



Using text messaging to train fish farmers

Mobile technology is increasingly important to day-to-day life, and as 82% of Kenyans now own a mobile phone⁵, communicating by text message makes sense – it's fast, easy and accessible to farmers wherever they are.

Farm Africa has been using text messaging to send out advice to fish farmers, covering everything from helpful tips on storing fish feed to the number of fingerlings the average pond should contain.

Feed your fish on supplementary and complete formulated fish feeds twice a day at 9am and 4pm in order for your fish to grow big and mature faster.

Farm Africa

Pour farm manure into the pond after every 30 days to stimulate growth of fish food, colour water to reduce predator visibility & keep off snakes. Farm Africa

Close pond water inlet after reaching the maximum water level of 1m and only open when the level reduces to avoid feeds and nutrients washing away. Farm Africa

Feed fish with fish mash and fish starter pellets for the first 4 months and growers pellets for the remaining months to improve the taste of the fish. Farm Africa

⁴ Government of Kenya (2013) *Fisheries Annual Statistical Bulletin.* Page 8

⁵ infoDev (2012) Mobile Usage at the Base of the Pyramid in Kenya

MEASURING OUR RESULTS

Farm Africa works with communities in eastern Africa to design and implement projects that break the cycle of poverty. We endeavour to ensure that our support to farmers is cutting edge and draws on successes elsewhere. But we also recognise that because we work in complex, changeable environments, we need to adapt to local circumstances. Our projects are constantly affected, positively or negatively, by external factors including the weather, markets and politics. We can design projects to explicitly account for uncertainty, but usually we need to monitor and adapt as we go.

Our role is to work with communities to ensure our projects are cost-effective and that we constantly learn from good practice and adapt our approach to maximise our impact on people's lives. The way we measure our work also continuously evolves and depends of course on the resources we have available.

WHY WE MEASURE

We need outcome and impact numbers to guide the implementation of our projects, to adjust course where necessary and deliver the best projects possible. Our way of measurement supports accountability and learning. We are, first and foremost, accountable to the communities we work with. We have a responsibility not just to deliver what we say we will, but to be able to produce numbers and personal testimonies that prove that change has happened, partly or fully as a result of our support.

We prioritise credibility over scientific rigour because we need to balance our resources between measuring results and delivering them and the impact we set out to achieve. We also take accountability to our funders seriously and strive to ensure that we measure and report on what is required.

All our measurement tools also provide an important opportunity for our project teams to learn from each other, strengthen their analytical skills, and remember the importance we as an organisation place on bringing about real results that affect people.

HOW WE MEASURE

At Farm Africa, measurement is everyone's responsibility – the whole system relies on the commitment of all staff at all levels of project implementation.

Logframes

The most important tool we use for assessing projects is a logical framework, which includes a statement of the problem the project is trying to address, and indicators of change that track the extent to which we are addressing this problem. We use 'logframes' to report about how projects are doing, and make any changes to increase their effectiveness. We collect data to feed into each logframe assessment.

Project Performance Reviews

We conduct annual Project Performance Reviews, when project teams use available evidence to rate projects against three important measures of success: efficiency, effectiveness and sustainability. This process helps us to analyse the performance of all our projects and draw out any lessons to ensure future projects can deliver even more impact.

Evaluations

We conduct at least one rigorous evaluation on every project before it closes, using external consultants who collect household data and conduct focused discussions with communities and individuals to understand what has happened during the project. The lessons learnt and practical recommendations made are documented and reviewed by management each quarter.

What does impact mean to us?

Understanding impact is critical to our success. If we don't know what change we have delivered and why, we cannot learn what works best in which contexts or persuade others to adopt our approaches, bringing them to more farmers. For Farm Africa, impact is essentially about understanding 'what difference do we make'?

To maximise our impact, it is also important that we can openly share what we have learnt with others. This report presents some highlights of what we have learnt from this approach in 2015. It is our first attempt to produce a summary of our impact and learning and we welcome feedback on how it could be strengthened in future years.

The case studies outlined in this report have been selected to provide a balance of project types and geographical areas.

HOW MUCH WE MEASURE

We face trade-offs when deciding how much time and money to invest in measurement. On the one hand, we want to ensure we are confident we will know what is working and where change is needed to deliver the best results for target farmers. On the other hand, we must be careful not to divert resources that would be better used to deliver more or better services.

Rather than requiring all projects to measure in the same way, we encourage our teams to measure projects in ways that are consistent with our organisational approach but also appropriate to the local context and environment.

WHAT WE MEASURE

Each of Farm Africa's projects is unique in its intended results, targeting, partners and approach. There is thus no single measure of success at outcome level that can be meaningfully compared across all projects. While most projects target household income growth, amongst other things, we know that an extra £100 for a landless young person in Tigray, Ethiopia does not necessarily have the same impact as £100 for an agri-business owner in Kisumu, Kenya.

Taking account of different contexts, we aim for a system that is **simple but not simplistic**. We do not believe in 'one size fits all' solutions and so have worked hard to achieve consistency in our system (how we measure) without requiring consistency in our indicators (what we measure).

It is important not to oversimplify comparisons between projects operating in different contexts. However, there are some elements of how we work that apply broadly across all our countries and projects. Within these, we are working to design standard indicators and ways of gathering data, so we don't need to reinvent the wheel for each new project and design new data collection tools. As we do this, we will always be cautious to not use standard indicators to draw simplistic cross-context comparisons.



Langstroth beehives can kick-start profitable and sustainable honey businesses for women in Tanzania. Photo: Jonathan Banks

THANK YOU

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UNDERSTANDING IMPACT IS CRITICAL TO OUR SUCCESS.

For Farm Africa, impact is essentially about understanding 'what difference do we make'? It means understanding what change we have delivered and learning what works best in which contexts.

By openly sharing what we have learnt, we maximise our impact by persuading others to adopt our approaches and unleash the potential of more farmers to grow their incomes in an environmentally sustainable way.

GROW FARMING. SEE CHANGE.

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