



FIVE YEARS OF THE AAF'S TECHNICAL ASSISTANCE FACILITY:

Enhancing the food security impact
of agri-business investments in Africa

2011-2017

KEY STAKEHOLDERS



The **African Agriculture Fund (AAF)** is a US Dollar-based private equity fund with a 10-year life which seeks to address food security in Africa by investing in high potential agri and food related businesses across Africa that are involved in the food value chain, with a focus on those that are targeting local production for local and regional consumption. The AAF is supported by a pool of multi-national investors that includes leading European, US and African development finance, government institutions and private investors.
www.phatisa.com/funds/aaf



Investing in rural people

The **International Fund for Agricultural Development (IFAD)** is an international financial institution and a specialised United Nations agency. It is dedicated to eradicating poverty and hunger in rural areas of developing countries. IFAD provides low-interest loans and grants to developing countries to finance innovative agricultural and rural development programmes and projects.
www.ifad.org



The **Technical Assistance Facility** of the African Agriculture Fund is primarily funded by the European Union (EU), managed by International Fund for Agricultural Development (IFAD) and implemented by TechnoServe. The project received additional donations from the Alliance for a Green Revolution in Africa (AGRA), Italian Development Cooperation and United Nations Industrial Development Organisation (UNIDO).
www.aaftaf.org



TechnoServe Inc is a rapidly growing non-profit organization working with enterprising people in the developing world to build competitive farms, businesses and industries.
www.technoserve.org



Phatisa is a sector-specific African private equity fund manager located in and operating across sub-Saharan Africa. The firm currently has two funds under management focused on food and affordable housing. Phatisa's vision is to be the leading sector-focused development equity fund manager in Africa.
www.phatisa.com



Databank Agrifund Managers Limited (DAFML) manages the US\$36 million AAF SME Fund, a subsidiary fund of the AAF, focused on small to medium enterprise businesses across the food security value chains.
www.dafml.com

Glossary of terms

Base of the pyramid (BoP)	Low-income people
Distribution model	The means by which a company organises its logistics in order to sell its products
Extension	Delivery of information to farmers
Inclusive business	Commercial enterprises which incorporate and benefit low-income consumers, producers, employees and micro-entrepreneurs in their value chain as part of their core business
Outgrower	A smallholder farmer who sells produce to commercial agro-processors
Portfolio company	An AAF investee company

FOREWORD

Following the food price crisis and global concerns about declining investments in Africa's agricultural sector in 2008/2009, it was clear that sustainable progress in food security in Africa could only be achieved if development programmes partnered with the private sector. To this end, Phatisa and several European, African and US development finance institutions pooled resources to form the African Agriculture Fund, a private equity fund investing in the agricultural and food processing sector across the continent.

To amplify the development impact of the African Agriculture Fund, the International Fund for Agricultural Development actively promoted a Technical Assistance Facility to work alongside its investments. Blending development finance with technical assistance can be a powerful tool to achieve business growth and development outcomes. After five years of implementation, we are ready to start assessing what type of development impact has been achieved and what lessons we can derive. A unique partnership has been forged between development institutions, private fund managers and a technical implementing agency. Some very good results have been achieved, and innovative solutions and models developed along the way. It has been a challenging, eye-opening experience for all those involved, but we are all driven by, and hope to have made a positive difference towards, enhancing Africa's food security.

We are proud of the learning journey that we have been on over the last five years. It has been, and remains, exciting to engage with portfolio companies of the African Agriculture Fund and see how providing technical assistance can lead to tangible results.

Some important lessons have been learnt about how technical assistance facilities work in practice as well as how they can be optimised. As much as anything, this programme has been a proof of concept: using the vehicle of an independent technical assistance facility to challenge traditional businesses to think in a more 'inclusive' way and, in doing so, push companies outside their comfort zone to experiment with new ways of reaching the poor to generate mutual financial benefits.

As we enter our final phase, the TechnoServe implementation team has expanded to allow for deeper engagement with companies and the bandwidth to think 'outside the box' to scale our impact. In this report we aim to show how technical assistance is increasing incomes and improving access to food for base of the pyramid producers and consumers, as well as providing vital support to firms, which are the engine of growth, jobs and food security in Africa. We intend for this report to be a contribution to the field on technical assistance, providing case studies and thematic findings to guide investors and development partners who seek to build inclusive businesses in Africa. We hope the reader is as excited as we are about the combined development impact of private equity investment and technical assistance support.



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Lead Technical Specialist,
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Investing in rural people



**Sarah Marchand and
Abigail Thomson,**
TAF Program Directors
(2011-2015, 2015-present)



TECHNOSERVE
BUSINESS SOLUTIONS TO POVERTY

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1. EXECUTIVE SUMMARY

The Technical Assistance Facility (TAF) has a mandate to increase economic and physical access to food for low-income Africans by providing technical assistance to the portfolio companies of the African Agriculture Fund (AAF). The AAF is a private equity fund created in response to the food security challenge across the continent, financed by African, European and US development finance institutions, and private investors. It is comprised of two funds; the AAF and a subsidiary Small and Medium Enterprise (SME) Fund. As TAF enters its fifth year, this report reflects on the progress of 42 projects implemented to date through technical assistance to ten AAF portfolio companies.

The objective of TAF's projects is either to strengthen companies' core operations by delivering consulting expertise so they are better able to grow, and hence contribute to food security, or to facilitate the implementation of new business models that extend their reach to poor consumers, producers or employees through 'inclusive business' initiatives. The latter include outgrower schemes and distribution models, which enhance the capacity of smallholders and micro-entrepreneurs to engage with portfolio companies through training and access to finance.

TAF's most significant interventions have been with three of the AAF's larger portfolio companies: egg producer Goldenlay in Zambia; fertiliser retailer and agri-trader Meridian in Malawi; and palm oil processor Goldtree in Sierra Leone. TAF support has enabled Goldenlay to develop an entirely new and more efficient approach to distribution of their eggs using depots and bicycle peddlers, a model which benefits small-scale local egg retailers and their low-income consumers. An innovative mobile soil-testing kit in Malawi, introduced through TAF support, will allow Meridian to develop and retail fertiliser suited to the local soils, improving the yields of potentially tens of thousands of smallholder farmers. For Goldtree, a wide range of TAF support, from infrastructure planning, farmer training and the introduction of pole-harvesting of palm fruit, is enabling 3,500 smallholders to improve productivity and gain better access to market.

TAF has also worked with seven of the AAF's SME Fund portfolio companies. TAF has supported the development of high level operational and marketing strategies

as well as identifying and supplying niche technical expertise. In all cases, TAF maintains close contact with companies and service providers, stepping in when additional support is required and facilitating learning across projects, industries and firms. By hosting a forum for portfolio company CEOs, and a workshop for extension teams, TAF has nurtured best practice and encouraged cross-sector fertilisation of ideas.

Although many investment fund managers support their companies with technical support, TAF represents an unusual model; while it provides the usual business development services, it goes much further in helping companies to develop more innovative and inclusive models. It is important to note that testimonies from portfolio company directors, who can be sceptical of development initiatives, reflect that projects developed with TAF's support deliver significant commercial returns. This critical buy-in secures opportunities for the programme to trial further innovation with them, and is one of the keys to TAF's success. Other important factors are the combination of independent funding alongside close collaboration with Fund Managers, the quality of the TAF team, and the programme's flexibility to adapt to the challenges of the African agricultural sector.

TAF's projects to date have enabled the companies to extend their reach to over 16,000 low-income beneficiaries, of whom 25 percent are women. It should be noted that although these are early results, as TAF still has over a year to run and twenty more projects in the pipeline, they are a strong endorsement for the effectiveness of this novel form of public-private partnership to address food insecurity.

2. INTRODUCING TAF

Our understanding of the roles of business, investment capital and donor capital in accelerating development in Africa are changing. The Technical Assistance Facility (TAF) of the African Agriculture Fund (AAF), the focus of this report, is part of that change. It sits on the interface between commercial investment strategies, business models, and deployment of donor funds for social value. It provides a valuable demonstration of how profit-seeking companies and donor funds can be usefully intertwined for impact.



Working with the private sector is increasingly seen to be part of the solution to achieving development objectives in Africa, and particularly in the agricultural sector, but some investment models and business models deliver more social value than others. Donors are leveraging their resources to encourage commercial solutions that contribute to development results at scale. Impact investors and entrepreneurs meanwhile are opting for models that provide them with commercial return combined with social value. So far, it has been shown that dual returns can be achieved but the route to scale is not easy and different types of stakeholders need to collaborate.

It is commonly said in the impact investment world that success is not just about choosing the right investees or deploying enough finance. Supporting investee companies with hands-on technical support is seen as a critical 'more than money' approach that can enable investors and their portfolio to succeed. There is, however, relatively little information to date on how such technical support works, or how it works best.

TAF, an independent technical assistance (TA) facility serving two private equity funds has been operating for the past five years, and is now ready to tell its story.

What makes TAF a valuable and unusual mechanism is its ability to straddle commercial and social objectives. It is a hybrid construct: a facility that speaks business and breathes development impact; that works with the private sector and is funded by donors to transform agricultural markets and increase food security. It is brought to life by a team that speaks the different technical languages of its public and private sector partners, with a mandate that requires it to strike the fine balance between facilitation and direct involvement. As the quotes below show, this hybrid, and at times dual nature, of TAF is much appreciated by its diverse stakeholders and is core to its success.

This report has been written to share TAF's progress over its first five years, capturing lessons for the benefit of development practitioners, investors and inclusive businesses. TAF's operational modalities and key relationships with the AAF Fund Managers are first outlined, followed by details of its project categories, drawing on examples from detailed company-based case studies, which are presented at the end of the report. Next, the impact of the TAF portfolio to date is summarised in terms of measurable results, and its indirect influences are also discussed. Finally, key learnings are proposed on the effective implementation of technical assistance to achieve development outcomes, drawing again on TAF's wealth of case study material.

Since 2011, TAF has worked with **10** AAF portfolio companies to reach over **16,000** low-income beneficiaries with a target of increasing their incomes by over **US\$2,000,000**

Independent

"TechnoServe designs TAF projects to ensure meaningful impact on food security and a win-win for the business and beneficiaries. A project will only be put forward for approval if it meets both of these objectives."

Abigail Thomson
TAF Program Director
TechnoServe

Integrated

"The greater the integration between the Fund and TAF, the greater the value to the companies. TAF helps the Fund Managers leverage their time."

Peter van As
Senior Partner
Portfolio Director
Phatisa

Creates tangible change

"Support to improve our pig production has been the most successful TAF project. We can see clear improvements with our stock. A 100 percent success."

Julius Manjoh
General Manager
West End Farms, Cameroon

Provides intangible benefits

"Being able to meet extension teams from different countries at the TAF workshop has given us insights into how others tackle the challenge of managing outgrower schemes. Taking time out of our day-to-day jobs wasn't easy, but I can see that sharing experiences has made us think more creatively."

Tim de Boeck
Outgrower Manager
Goldtree, Sierra Leone

Into the nitty gritty

"Having seen in Malawi how TAF operates, I can testify to how efficient and practical are the services provided by TAF. TAF people have an in-depth knowledge of the challenges facing farmers and have the ability to bring appropriate solutions around Phatisa's investments."

Jean-Francois Laurain
CEO, Unigrains, AAF investor

Sees the big picture

"With the views of the various stakeholders involved in TAF decision-making, and an eye on multiplying the development impact of the AAF, IFAD tries to see the big picture when approving TAF projects."

Mylène Kherallah
IFAD TAF Manager, IFAD

Analytical

"As a member of the project review committee, UNIDO expects rigorous analysis from the TAF team to guarantee inclusiveness and sustainability - before we give our go ahead to a TAF project."

Bassel Alkhatib
Industrial Development Office
UNIDO

Practical

"We were worried that TAF was going to micro-manage, but actually it was fantastic - just like having an extra pair of hands"

Melanie Wilkinson
Country Director
IDE, Zambia

Minimises risk

"Supporting SME investees directly with technical assistance is as important as providing the financial resource itself. This definitely mitigates risks of failure and loss."

Samuel Mivedor
Manager
Portfolio Asset Management
Division, AfDB, AAF investor

Pushes boundaries

"Sometimes a bit of outside energy is needed to shift from business as usual. TAF supplied the initiative and a bit of rocket fuel for us to try out a new service for our smallholder customers."

Dimitri Giannakis
Director, Meridian, Malawi

Commercial

"NGOs normally come with ideas from the moon, but TAF understands the private sector. The need is to inculcate business sense into farmers and create 'agripreneurs'; don't treat them as vulnerable people."

Kelvin Hambwezya
Chief Agriculture Services
Officer, NWK, Zambia

Social

"TAF's social objective is clear to us: 70 percent of the population are poor and the new distribution system gets the cheapest protein to the furthest point."

Mason Chilala
Accountant
Goldenlay, Zambia

3. THE AAF AND TAF

3.1 Two funds, one technical assistance facility

The AAF is a US\$246m private equity fund created in response to the food security challenge across the continent, financed by African, European and US development finance institutions including private investors. It is comprised of two funds; the AAF and a subsidiary Small and Medium Enterprise (SME) Fund. The AAF makes investments in the US\$5m – 24m range, in high potential established businesses in the primary, secondary, and tertiary sectors of food and agriculture industry, from livestock and cereal farming, to processing produce, and the services and infrastructure that makes these industries viable. The AAF has been managed by Phatisa, an African private equity firm with a strong development vision focused on both food security and affordable housing, since it commenced operations in January 2011.

AAF

Fund Manager: Phatisa

Fund size: US\$246m

Invested: US\$209m

Number of portfolio companies: 8

Industries: Protein production, palm oil processing, inputs, mechanisation, fertiliser and FMCG beverages

SME Fund

Fund Manager: Databank

Fund size: US\$36m

Invested: US\$28.6m

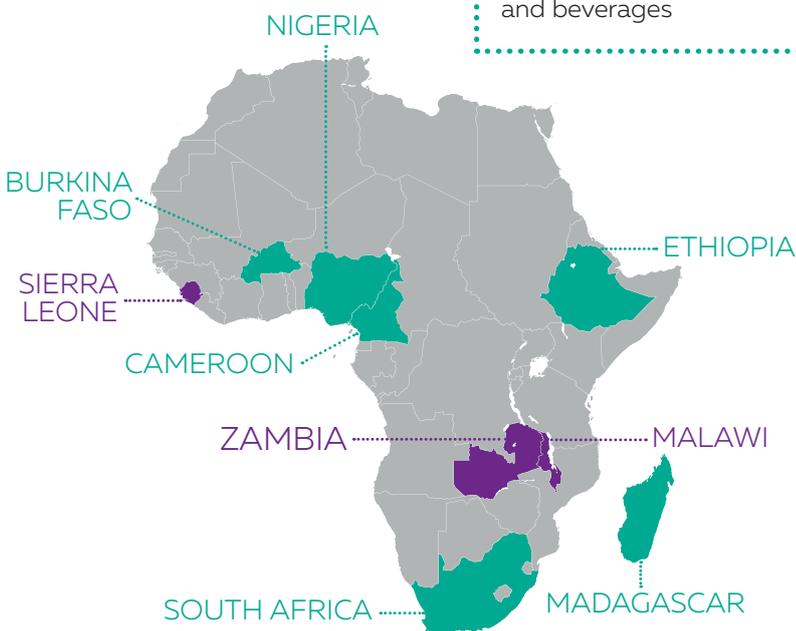
Number of portfolio companies: 8

Industries: Protein production, processing, inputs and food and beverages

The AAF invested in the SME Fund, which had a final close of US\$36m in May 2014, and makes investments of up to US\$4m in African SMEs. The SME Fund is managed by Databank Agrifund Manager Limited (Databank), a private equity group with a specialism in the agriculture and food production value chains.

TAF was created to support the AAF and add value to the investments of both funds, as well as generate new opportunities for smallholder farmers, farmer business groups and rural communities. TAF is funded primarily by the European Commission and managed by the International Fund for Agricultural Development (IFAD). It is co-sponsored by the Italian Development Cooperation, United Nations Industrial Development Organisation and the Alliance for a Green Revolution in Africa. TechnoServe, a US-based not-for-profit organisation focusing on business solutions to poverty, was appointed by IFAD to implement TAF in 2011.

TAF has a budget of €10.3m (US\$11.0m), over a seven-year period, to provide TA to portfolio companies of both Funds. This TA, delivered via TAF-managed projects, either aims to improve portfolio companies' operations or facilitates changes in their operating models by engaging and developing other actors in the value chain; in either case, projects are directly aligned with needs of the company and the vision of the Fund Managers. However, a critical feature of TAF is its independence; because it is funded and managed separately from the AAF, it has autonomy for its project design and delivery.



TAF has a budget of **€10.3m** (US\$11.0m), over a seven-year period, to provide technical assistance to portfolio companies of both Funds.

3.2 TAF's objective

The rationale for establishing TAF was to increase the effectiveness and development impact of the two AAF investment funds by supporting investees with dedicated technical assistance (TA). TAF's ultimate goal is to contribute to improved food security in the African countries and regions in which AAF portfolio companies operate, by providing them with expertise and support critical to their growth, and by stimulating and fostering innovation. There are two principal routes for companies to achieve this objective: by increasing **economic access** to food, through raising incomes and creating jobs, and by increasing **physical access** to affordable, available and good quality food.

TAF's objective is achieved through:

- **'Core' business projects:** strengthening recipient SMEs, enhancing their ability to impact the livelihoods of the poor through direct employment, sourcing of production inputs or via increased access to goods and services, as well as through their contribution to the wider agricultural economy and hence food security; and

- **'Inclusive business' projects:** facilitating the uptake of more inclusive business models among Phatisa and Databank portfolio companies, leading to greater economic and physical access to food for base of the pyramid (BoP) consumers, producers and employees.

The logic of how TAF's interventions with the AAF's portfolio companies delivers increased food security to low-income beneficiaries is shown in Figure 1 below.

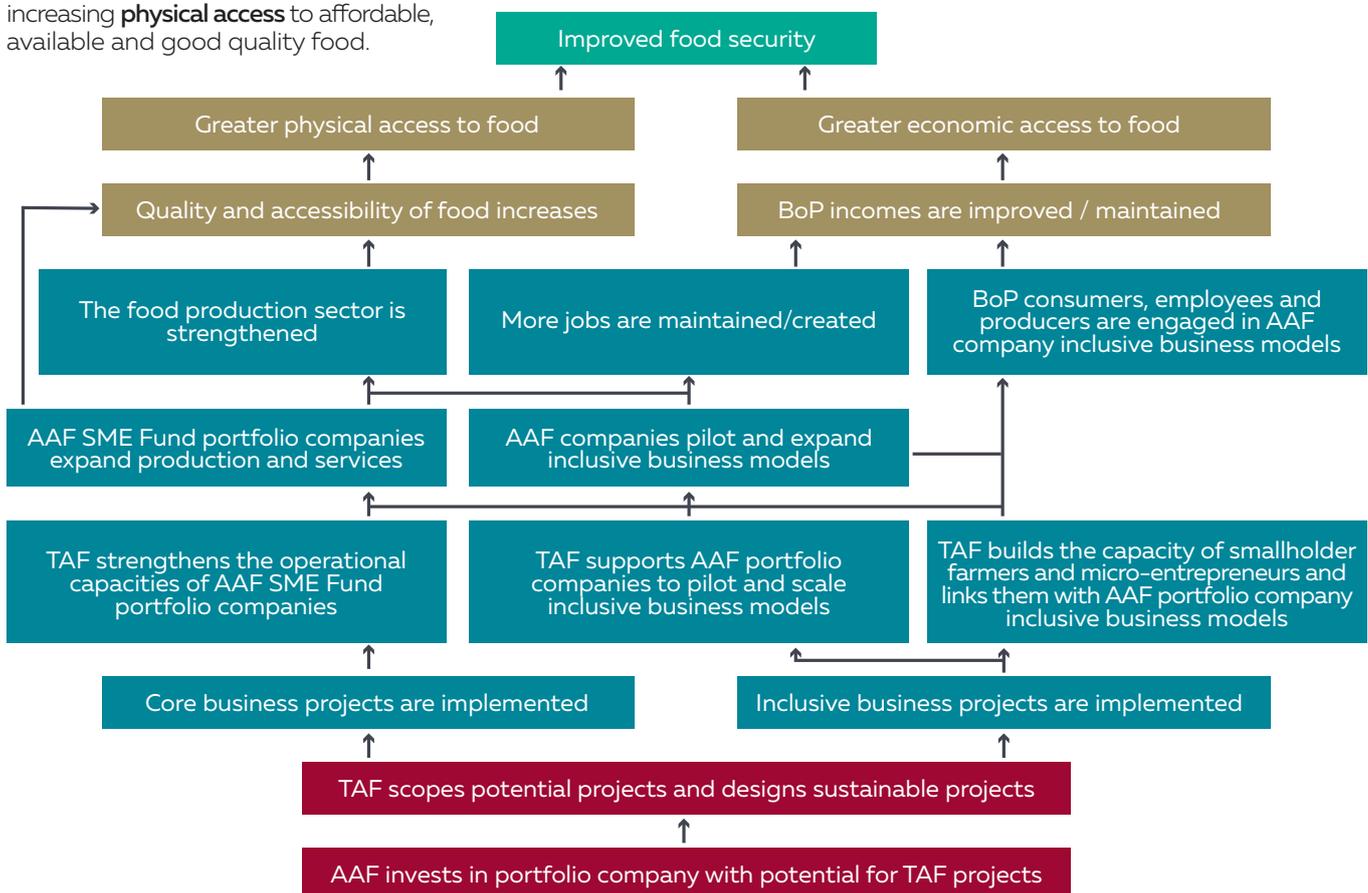


Figure 1: TAF intervention logic

3.3 TAF's relationship with the Fund Managers and portfolio companies

The AAF Fund Managers need to generate returns on investment on behalf of their investors. TA adds value by enhancing these returns, both by improving SME performance and reducing costs in the short term, but also by providing opportunities for portfolio companies to innovate and potentially develop new business models that strengthen their

long-term value. TA can therefore ultimately contribute to better overall fund performance, making portfolio companies more saleable.

Furthermore, for both the Funds, having TAF as a linked facility is a valuable unique selling point, which increases their attractiveness to potential investee companies and future investors. TAF is an opportunity to prove that marrying private equity capital to high quality technical assistance can enhance

the performance of agricultural businesses in Africa, and attract additional resources to invest in this public-private form of partnership.

The relationship between the Funds and TAF is summarised in Figure 2 below.

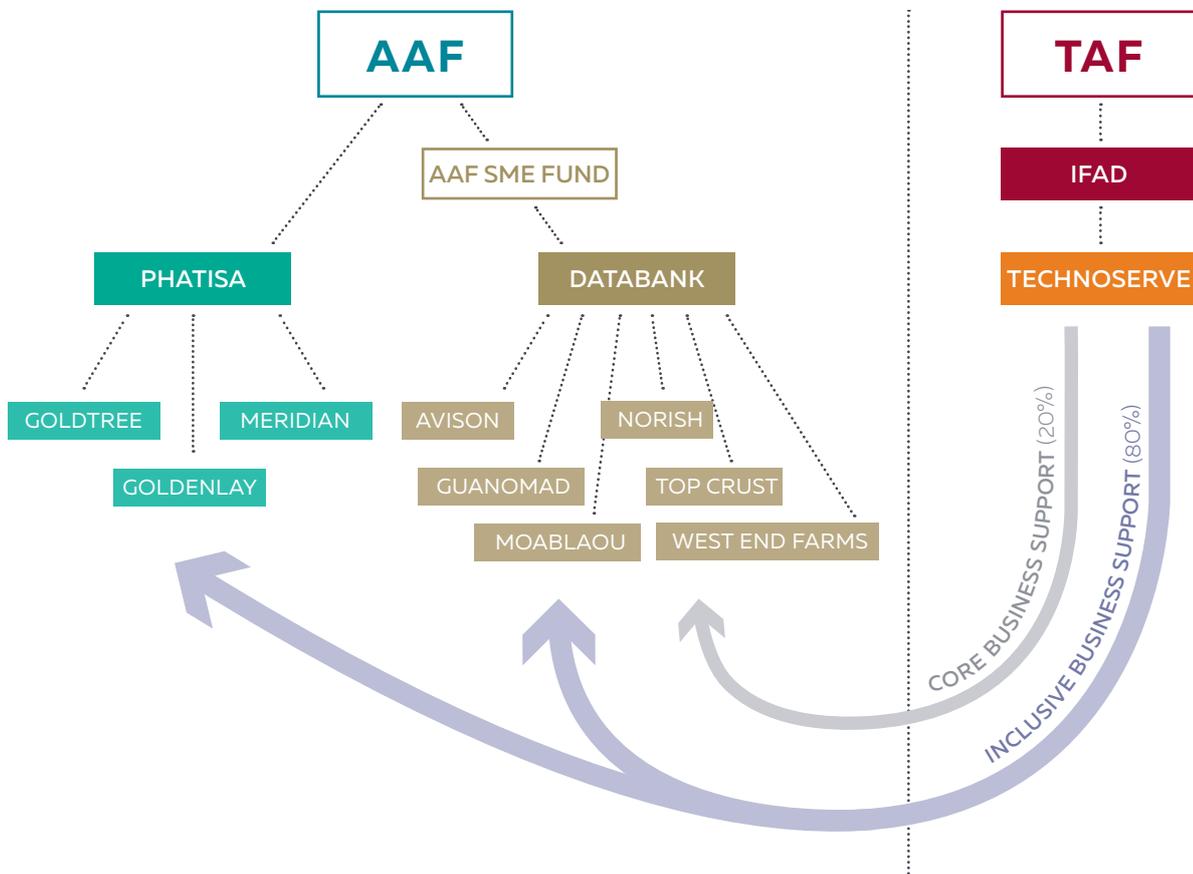


Figure 2: How TAF operates with AAF and SME Fund portfolio companies



3.4 Portfolio companies with whom TAF works

AAF portfolio companies span the whole range of food production-related processes, and those with whom TAF has worked are shown in Figure 3 below. Detailed case studies on TAF's work with these nine companies can be found in the Annex, and examples drawn from these cases have been used to illustrate how TAF works throughout this report.

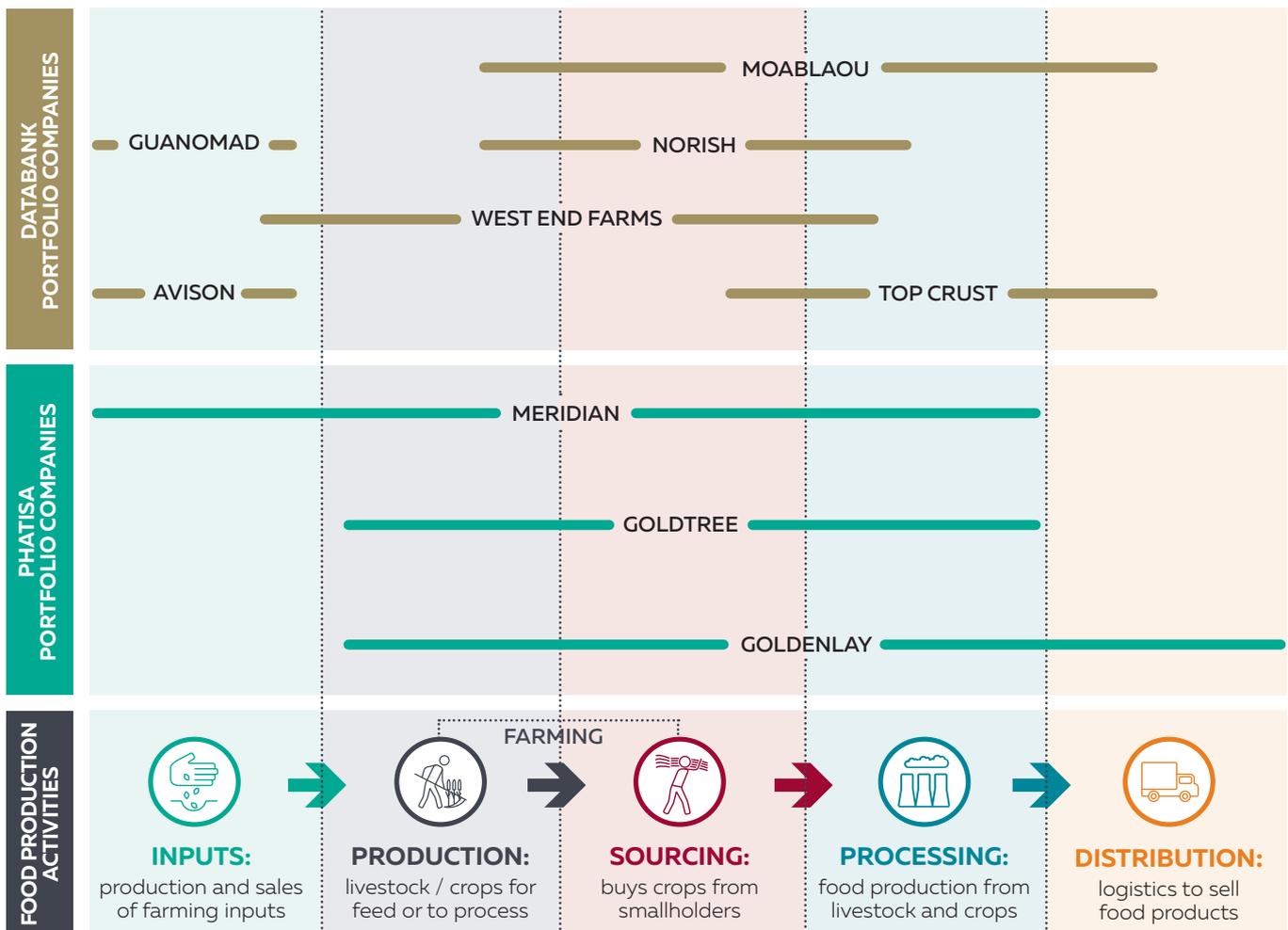


Figure 3: Spread of companies across the food production chain

4. THE TAF PROJECT PORTFOLIO

TAF began its first project in 2012 and is now in its sixth operational year, with another 18 months to run. Twenty-one projects are complete, 21 are underway and over 20 are currently in the design or procurement stage. TAF does not work with all the AAF portfolio companies; projects are co-created by the TAF team, the Fund Managers, and the companies themselves, and need to meet the specifications set out by TAF's funders. For example, inclusive business projects need to demonstrate potential for sustainability, pro-poor impact, and contribution to food security; core projects need to show value addition beyond what a client firm can do for itself.

All projects require the approval of IFAD, and those over the value of €250,000 (US\$260,000) are also screened by TAF's Technical Assistance Committee. From Phatisa's portfolio of eight companies, TAF has worked with three to date and is at the design stage with projects for two further companies. Seven of the eight Databank portfolio companies have had support from TAF, but when external pressures made working with one company (Interfresh) too challenging, TAF had to cancel a project with them, and the information in this report is therefore drawn from projects with the other six portfolio companies.

As Figure 4 (page 13) shows, inclusive business projects are significantly larger in budget than core ones, as by their nature they involve long-term engagements with large numbers of participants. Outgrower schemes in particular, are the most costly projects overall as they require extensive set-up and training.

As the company case studies in the final section of this report (page 36) illustrate, most of the companies that TAF has engaged with to date have received the benefit of more than one project. By the end of the programme, for example, some companies will have received up to ten individual pieces of support, but these will typically include several small projects such as feasibility studies.

4.1 Inclusive business projects

TAF's inclusive business projects, focused on both Databank and Phatisa companies, enable AAF portfolio firms to increase the ways in which they provide local economic opportunities and employment. In many cases TAF is encouraging companies to take risks they would not otherwise take, or test out new ways of doing business they would not otherwise consider. These new ways of working allow profitable engagement of the poor in a company's value chain, either as producers (e.g. smallholder farmers), employees, micro-entrepreneurs, or as consumers of the company's products. As well as directly working with the AAF portfolio companies, TAF's inclusive business projects engage other market actors, including smallholder farmers and micro-entrepreneurs, to facilitate their engagement in the inclusive model.

Commercial drivers for the companies to engage with smallholder farmers range from motives of corporate social responsibility (CSR), to improving the security of their supply chains (both in terms of quality and quantity). CSR is both about having a positive impact in the communities in which a company works and building a 'social licence to operate', but also encompasses a broader motivation to improve the long-term stability of the ecosystem in which the company operates.

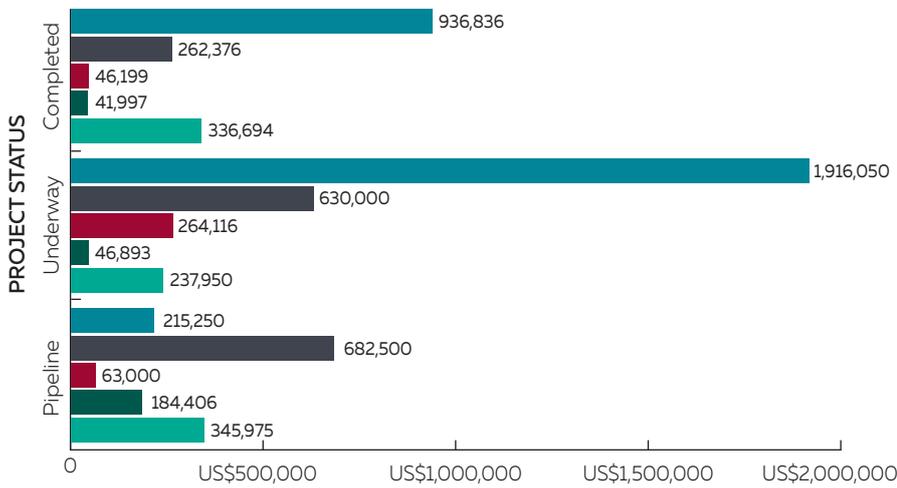


Figure 4: TAF expenditure on TA, by project type and progress status

TAF’s inclusive business projects can be classified in the following categories:

- 1. Outgrower schemes:** designing and implementing models for small farmers to supply the AAF and SME Fund companies, including agronomic training developing cooperative structures, establishment cost for farm service schemes and facilitating market mechanisms and relationships;
- 2. Downstream distribution schemes:** extending the reach of portfolio companies’ agricultural inputs and services to greater numbers of smallholders through new distribution models, training of micro-entrepreneurs, developing and piloting farmer training programs;
- 3. Base of the pyramid (BoP) distribution schemes:** supporting AAF investees or micro-entrepreneurs to improve the reach of food products to BoP consumers.
- 4. Rural finance schemes:** improving access to financial services for smallholder farmers, micro-entrepreneurs and micro-enterprises linked to AAF investee companies, sometimes by using a ‘smart subsidy’ to encourage investment in agricultural inputs or equipment.
- 5. Platform projects:** innovation, learning and knowledge dissemination across the portfolio companies and projects

4.1.1 Outgrower schemes

5 projects completed
1 project in progress
1 project in procurement

Case studies: Goldtree, West End Farms, Goldenlay, Guanomad, Norish, Maoblaou

To participate in outgrower schemes, most smallholders require agronomical training; extension officers also require training and appropriate materials to deliver this. In Sierra Leone, after experiencing mixed results from a traditional top-down approach, TAF has worked with the palm oil processor **Goldtree’s** outgrower department to introduce a new way of achieving extension management. The project has adopted an innovative ‘farmer to farmer’ approach to the formation of groups, with a particular focus on relationship building, soft skills, active listening and peer learning.

To date, 125 farmer groups with 10-15 farmers each have received training in agricultural practices and have started to effectively work together. For example, slashing of farms - required to improve access to the palm trees and to improve yields - is now done jointly by group members on each other’s farms based on a weekly rotation schedule. The project team is confident it will reach its target of 3,500 farmers across 200 groups by April 2017 and TAF will share the learning from the new extension approach with other companies and projects.

Forming relationships with existing agriculture cooperatives can also be an efficient way for businesses to work with smallholders, as well as enabling opportunities for the farmer members. However, many businesses encounter difficulties forming these relationships as farmer associations may not be well organised or efficiently managed. Technical assistance can be used to support businesses to negotiate and structure linkages. In Ethiopia, TAF supported a project to broker a supply contract agreement between a local cooperative union and **Norish**, in which the union has agreed to supply 2,500 MT of maize in the 2016 production year (about 30 percent of Norish’s needs) and the company agreed to pay a fair price based on quality and the going market rate.

109

jobs created

Over

8,000

farmers have been linked to portfolio companies through outgrower schemes

Beneficiaries are expected to double by the end of TAF

OUTGROWER SCHEMES



SOYA FARMING IN ZAMBIA

Stella Njovu farms with her husband Kenneth and they support eight children on their 4Ha of land near Mpongwe, Zambia. She previously grew maize and groundnuts but after receiving training from her local distributor, who was part of the NWK outgrower scheme, she also grew cotton and soya for the first time last season. NWK is working with Zambian egg producer, Goldenlay, to increase the volume of smallholder soya which the company needs for chicken feed, as further detailed in the case study on pages 36–39.

Stella managed to buy 75kg of seed, as well as the ‘pocket’ (25kg) that she received on loan from NWK, and planted 1Ha of soya. She successfully harvested 30 x 50kg sacks which enabled her to pay off her loan and make a 5,000ZMW (US\$500) profit.

Stella found soya beans were easy to weed, but shelling the beans was time consuming – she had to do this manually as there were no threshers available to rent in her area. Stella has been impressed by the price she gained for her soya crop; she is keen to grow it again this season and has kept back six bags of her first crop to use as seed as well as hoping for at least a pocket of seed again on loan from NWK.

Technical assistance can also assist farmer associations in organisational development, training of leaders, formation of core committees or divisions and installation of good governance models. This is not always straightforward, and TAF has found that the same intervention can have different consequences depending on the local context. In Cameroon, socio-economic and cultural factors meant that one cooperative thrived under the outgrower scheme and achieved over 80 percent repayment on loans facilitated by the project, while the other defaulted. Consequently, **West End Farms** has stopped working with the latter cooperative, but is still engaging with farmers from the first.

TAF has also supported third party service providers who link farmers to the companies supporting affiliated smallholder farmers. In Burkina Faso, TAF works with an organisation called Ferme Pédagogique de Kourinion that sources maize from smallholders on **Moablaou’s** behalf through an integrated maize project in partnership with a local agrodealer. TAF will not fund crop-specific extension on an ongoing basis, but provides planning and start-up assistance, for example, by supporting FPK to approach banks to finance inputs and other costs of the project to mobilise the US\$300,000 of additional finance required to reach the target of 1,200 farmers in 2017.

TAF has learned that not all portfolio companies will be bought into inclusive business initiatives to the same degree and therefore it is important to be creative in finding appropriate market players with whom to engage, particularly when it comes to output market access for smallholder farmers.

DOWNSTREAM DISTRIBUTION SCHEMES

An estimated
12,000
farmers accessing
better inputs and
services by the
end of TAF

20%
increase in
productivity for
participating
farmers targeted by
December 2017

At least
60 jobs
created at portfolio
companies targeted
by December
2017

Due diligence is conducted on all stakeholders involved (including the portfolio company) to understand the limits of each partner's involvement from the onset and adjust the TAF intervention model accordingly. For example, in Zambia, **Goldenlay** does not see the value in directly sourcing from smallholder farmers, so instead, TAF has leveraged a joint venture between Goldenlay and a commodity trader, **NWK**, whose core business is procuring grain from smallholder farmers. This has led to the supply of 2,500 MT of soya to Goldenlay this season from local farmers in Mpongwe, towards its 6,500 MT annual demand.

For **Norish** in Ethiopia, as well as **Goldenlay** in Zambia, TAF-supported outgrower schemes were the first time that the companies had engaged with local smallholder farmers. Whereas, prior to engaging with TAF, **West End Farms** had some existing engagement with smallholder farmers, but TAF support enabled the company to implement a more formalised approach, which included a partnership with a local microfinance institution as well as greater reach to farmers.

Security and quality of supply was a key rationale for smallholder engagement in the case of **Moablaou** in Burkina Faso, in which the TAF-supported project engages smallholder farmers to pilot the production of yellow maize, which is not widely available in country, but is the preferred input for Moablaou's poultry feed. Similarly, **Norish** hopes that sourcing maize and soya directly from smallholder farmer cooperatives will give them access to better quality produce, and hence reducing costs and time required for post-purchase management of the inputs.

4.1.2 Downstream distribution schemes

1 project completed
1 project in progress
1 project in procurement

Case studies: Guanomad, Meridian, Avison

This type of project involves working with portfolio companies that supply products and services, such as seeds, fertiliser, crop protection chemicals, mechanisation services and irrigation equipment, to smallholder farmers. TAF's objective is to improve farmers' access to effective and appropriately priced inputs and services, enabling them to increase their productivity, while enhancing commercial returns for the company.

TAF's biggest downstream distribution project involves helping an AAF portfolio company directly develop smallholder outreach, to build their market share for their fertiliser, while offering a better product and service to farmers. The Productivity Improvement Project for Smallholders has supported **Meridian** in Malawi to recruit agronomists at their retail stores to conduct soil testing and produce crop-specific blends for smallholders that address underlying deficiencies in the region's soil nutrient levels. Recognising that customised fertilisers are only part of the solution, the goal will be to continuously build on knowledge and experience gained from the field to confidently deliver a holistic package of inputs and sound agronomic advice to farmers. The impact for these farmers will be to increase their yields and incomes, and at the same time fertiliser sales will benefit Meridian.

A similar project is currently launching in South Africa with **Avison** where fertiliser blends offer the opportunity to enhance smallholder soil fertility and increase yields in the drought-stricken North-West province. TAF will be supporting a smallholder marketing and distribution strategy to reach at least 500 farmers in the 2017/18 planting season with the potential to scale up thereafter.

Downstream linkage activities can include supporting the development of distribution schemes to smallholders via independent networks of micro-entrepreneurs. This support typically includes commercial and management skills training to enable the micro-entrepreneurs to grow their businesses. However, this can be challenging if the pre-existing capacity of the entrepreneurs is too low. In Madagascar, for example, it proved too ambitious to upskill the agrodealers with technical agronomic skills when their priority was day-to-day business survival. This problem was raised early in the pilot and the training of agrodealers was terminated. Focus shifted to training farmers directly on the benefits of using modern crop inputs to increase productivity, including organic fertiliser such as **Guanomad**.



SOIL SAMPLING IN MALAWI

Magret Mlengwe is an extension worker recruited in May 2016 for Meridian’s Productivity Improvement Programme for Smallholders (see case study on page 44). This is her first job since graduating from Mwimba College of Agriculture in Kasungu, and she is responsible for outreach to 223 farmers around Namitete, Lilongwe.

Magret has collected and analysed 64 soil samples from surrounding villages. The process involves taking a random sample of 10 specimens from each area. Magret then conducts the soil analyses from home using her SoilDoc kit; it is an intensive process that takes over six hours per ten samples. Meridian will be using the results of the soil sampling in central Malawi to determine the optimum fertiliser blend for local smallholders to use on the most popular crops. These blends will be significantly more productive than the outdated ‘standard’ Malawi blend.

Magret typically spends one day a week at the local Meridian Farmers World store assisting farmers with inputs purchases. The rest of the time she is out visiting farms providing extension advice, conducting household surveys or sampling. Farmers rarely have access to agronomic expertise – government extension workers are very thinly spread – and so they welcome the assistance, which is an essential part of Meridian’s strategy to ensure the new fertiliser blends are properly used and the benefits realised.

Finally, TA support can also be provided to develop and pilot implementation of sales schemes to promote uptake of inputs and services. TAF is currently designing a project that will work with the AAF farm machinery businesses to explore business models of leasing equipment to smallholders, to enhance productivity and achieve market requirements in terms of quality and timing.

Under this category special attention is given to the ‘additionality’ principle, which means that TAF funds should not be used to finance activities that the AAF portfolio company or distribution/agents should finance themselves. At least a third of the project budget needs to be a match-fund commitment from the companies.

Overall, TAF involvement with agricultural input suppliers such as **Meridian, Guanomad** and **Avison** enable farmers to produce more cost-effectively. This leads not just to increased incomes for such farmers when they sell their crops, but also enhances their food security directly through producing greater volumes of food crops for their own consumption.



4.1.3 Base of the pyramid (BoP) schemes

2 projects completed
1 project in progress

Case studies: Goldtree, Goldenlay, Maoblaou

BoP schemes support portfolio companies to engage micro-entrepreneurs in their supply chain who distribute food products to BoP consumers, thereby increasing the incomes and securing the livelihoods of these micro-entrepreneurs. Such support can include TA to AAF portfolio companies to design or pilot a BoP distribution scheme in consultation with main beneficiaries (the micro-entrepreneurs) with the expectation that, if successful, roll-out of the BoP scheme will be funded by the company itself. For example, in Zambia, **Goldenlay** had seen the downstream distribution of eggs beyond the wholesale point as an external issue, beyond its control and of little relevance to its commercial performance. However, the BoP egg distribution model has introduced a novel mechanism to extend Goldenlay's reach to more consumers in a cost-effective manner and impact its bottom line. Results at project close in 2016 reveal that the benefits are increasing egg sales for Goldenlay as well the local micro-retailers (80 percent reporting 60 percent increases in eggs since the project); whilst increasing access to eggs for final consumers. Having seen the return on investment, Goldenlay has now hired seven BoP staff permanently and mapped a roll out plan to scale up to 36 depots and employ 94 peddlers. The consultant that ran the TAF project is also being hired directly by the company on a short-term basis as an advisor.

The BoP distribution schemes that TAF has implemented extend physical and economic access to food by offering affordable sizes/packages/units, as well as distributing in hitherto underserved areas.

Micro-entrepreneur empowerment training is another important aspect of BoP schemes that includes business and management skills training (e.g. business planning, negotiating skills, etc.) to enable the micro-entrepreneurs to become fully independent businesses. For example, a new TAF project with **Moablaou** in Burkina Faso will have the objective of improving the performance and productivity of at least 100 small-scale distributors through training, promoting access to finance and piloting a cashless payment and reward platform.

Over
2m eggs
sold direct to
consumers

BASE OF PYRAMID SCHEMES

1,891
number of
micro-retailers
linked through
scheme in
Zambia

US\$500k
increase in income for
micro-retailers



SELLING EGGS BY BICYCLE IN ZAMBIA

Horsin Kalikeka, 26, is a Goldenlay bike peddler working from the Chifubu depot in Ndola, Zambia. He applied for the job soon after the depot opened, in August 2016, and received business training, learned how to use a point of sales device as well as how to apply Goldenlay's 'selling etiquette'.

Horsin gets paid by commission, so he aims to sell up to 80 trays of eggs per day (2,400 eggs) on two trips from the depot to around 100 local micro-retail outlets, or 'ntembas', in his allotted area. For this he can earn US\$120 – US\$150 per month, which is twice the minimum wage. Horsin enjoys chatting to the ntemba owners and selling his eggs, although it can be hard to explain to them why egg prices change from time to time. These changes are a result of demand and cost fluctuations experienced by Goldenlay.

The Chifubu depot is one of five that has been set up as a result of TAF's innovative BoP distribution project with Goldenlay. The project has been very successful for both the company and the ntemba owners, as well as reaching more low-income consumers with eggs. For Goldenlay, the greater efficiency and reach of the model over their original truck-based approach has encouraged them to scale-up to 36 depots in the next three years. Further details of the project can be found in the Goldenlay case study on pages 36–39.

4.1.4 Rural finance schemes

**2 projects completed
4 projects in progress**

Case studies: Goldtree, Goldenlay, Norish

TAF uses rural finance mechanisms to support inclusive business projects with a number of its client companies; the mechanism is an extremely important tool in TAF's box to facilitate effective change. For example, to engage in outgrower schemes, smallholder farmers cannot capitalise on opportunities to access new markets if they cannot afford crop inputs; to have enough working capital to profit from expanding retail, micro-entrepreneurs equally need finance. In an ideal world, local microfinance institutions (MFI) would step into this space as programmes such as TAF create these opportunities. The reality is that these institutions are lagging behind the demand curve.

Where TAF has not been able to find a strong MFI partner (as is often the case), it has, however, been able to use a 'smart subsidy' (see box) to de-risk input loans offered by partners. For instance, as part of the work TAF conducted to improve **Goldenlay's** access to soya for chicken feed, it provided 25 percent of the input finance required to incentivise the sourcing company NGHL to lend smallholder inputs. The scheme resulted in a loan repayment rate of 87 percent in the first year (which is a strong result in the context), and TAF will reduce its smart subsidy as NGHL picks up the full loan scheme over the next two years.

TAF's CEO forum received positive feedback from participants:

"The only reason we could take that gruelling schedule is because it was timely and very well-organised. For all the challenges we have had to deal with, I can assure you that [TAF] has made a huge difference in the way we think and work."

Julius Manjoh, General Manager, West End Farms, Cameroon

TAF's smart subsidy

TAF's definition of a 'smart subsidy' is a tailored grant to incentivise farmers, companies and banks/MFIs to invest in inputs or input loan facilities, e.g. matching fund, interest subsidy or the coverage of financial institution loan officer. Basic principles for a smart subsidy include that it should not distort the market nor erode the incentives of other market actors to independently adopt the changes being tested. Overall the partner receiving the smart subsidy should be willing to pay for and perform all those functions required to continue with the new behavior and practice changes in future.

Ethiopian company **Norish** has been piloting a soya and maize outgrower model whereby a smart subsidy financed smallholder access to improved seeds. Two further smart subsidies will also be to facilitate access to finance to buy thresher and to enable a joint fund for the local cooperatives.

These examples demonstrate the value of increasing access to finance to smallholder farmers. When TAF piloted a soya outgrower scheme in Zambia with implementation partner IDE, various contextual issues hampered its success, but a key part of the difficulties encountered was the lack of farmer access to seed finance (only 15 percent accessing certified/quality seed). TAF has addressed this challenge by negotiating a deal with MRI-Syngenta to pre-finance smallholder farmers in the iDE project to increase adoption of improved inputs in the final two seasons.

4.1.5 Platform projects

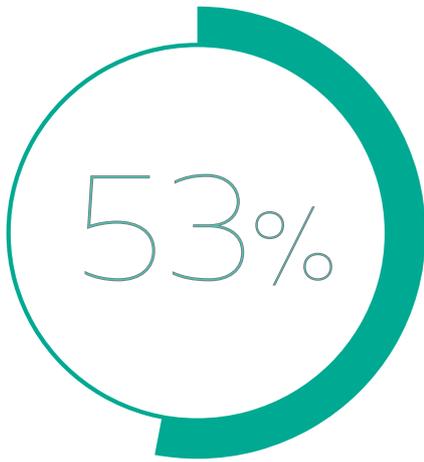
Beyond its 'regular' inclusive business projects, TAF has the flexibility to facilitate innovation, learning and dissemination of lessons across the portfolio companies and projects. A range of activities can be funded to achieve this objective including: lessons learned studies; funding of experts or volunteer consultants to transfer and embed innovations from one company to another; analysis of the application of technologies across projects; innovation transfer; workshops around common issues for information sharing; and learning visits between companies facing similar challenges. The TAF team is currently identifying the most suitable areas for value addition, such as the development of standardised management information systems (MIS) for outgrower schemes, opportunities to scale up use of innovative soil testing kits across different countries and sharing lessons from implementation of smart subsidies.

4.2 Core business projects

13 projects completed
5 projects in progress

Case studies: West End Farms, Guanomad, Top Crust, Avison, Moablaou, Norish

The rationale for core support to Databank portfolio companies is to enhance their capabilities and skills, promoting business growth, which in turn creates positive local economic benefits such as employment and volumes of food produced. These firms are less mature than the Phatisa portfolio companies and therefore tend to have some operational issues that merit attention. By building SME growth capacity, TAF's core business projects reduce the potential risks for investors, suppliers, and buyers, and contribute to long-term economic stability. They deliver a broad range of services, including the development of MIS, 'learning journeys' (whereby company staff visit similar operations in other countries), feasibility and market research studies, and supporting firms to hire key personnel. Core business projects typically total about US\$100,000 – approximately 2.5 percent of the maximum investment value – and can be split across a range of interventions.



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CORE BUSINESS PROJECTS

The average cumulative growth rate since TAF entry has been 53% per company

For the majority of core projects, TA support is focused on helping companies doing something that they already do **better**. For example, a MIS implementation plan for **Avison** has assisted with allowing the business to better manage its growth. The best-in-class system has reduced manual processes by 72 percent, and average reporting time by 80 percent. Senior management now has more time and can make better-informed decisions.

In other cases, projects explore to what extent companies could do things **differently**, by identifying and/or testing new opportunities or changing an operational process. For example, part of the technical advisory support provided by an agribusiness expert to **West End Farms** in Cameroon was focused on exploring whether cassava can be integrated into animal feed formulation for the company's pig production. Another piece of support planned for West End Farms will assist the company with the implementation of soil sampling analysis of its arable farmland through the funding of an innovative, project-tested soil kit. Similarly, for **Top Crust** in Nigeria, TAF support focused on diversification of the product basket, a fundamental strategy to the future growth of the company. Utilising its access to 20,000 daily BoP customers, products that are well priced and formulated will enable the business to grow beyond its current product mix and enable Top Crust to capture more margin.

An export strategy for **Guanomad** in Madagascar has helped the company to prioritise new markets while a secondment planned for 2017 will assist the sales team to engage new customers. The sustainability of these new customer relationships will rely on guaranteed quality assurance, so a partnership with a research agency has also been structured by TAF aimed at resolving quality issues associated with their organic fertiliser product.

In some instances, TAF support has been critical for business survival. For example, TAF support was rapidly deployed to formulate a recovery plan for the poultry business **Moablaou** in Burkina Faso after 90 percent of its stock was lost in an avian flu crisis.

TAF's impact on SMEs should be viewed through the lens of a portfolio. Some businesses will grow faster than expected, some slower, and some may not depart from their current growth rate. Ultimately, the businesses are subject to the risks of the competitive markets in which they operate. This is the reality of a portfolio approach to investment and is likely to be mirrored in the results of the core business TA interventions. To the extent possible, TAF qualifies the performance of the intervention independently of the overall business for a more granular understanding of the performance of the TA itself.



“There have been ups and downs in our engagement with TAF. But each time there has been a problem we have been able to jointly step back to understand what the problems were and find better ways of doing things next time.”

Julius Manjoh,
General Manager, WEF



PIG PRODUCTIVITY IMPROVEMENT IN CAMEROON

Ben Sunjo graduated as a veterinary technician in 2010, but it was only in 2014, when he heard about West End Farms starting its pig unit, that he could find a job in his field. TAF is sponsoring quarterly visits to West End Farms by a pig production farm expert and veterinary from South Africa, Dr Evans, who is working with Ben and other staff to improve performance of the piggery. The objective is to support a breeding program to produce high yielding porkers suitable to the local environment.

Ben has had regular contact with Dr Evans to develop his technical expertise, and has recently spent time on Dr Evans' farm in South Africa, where he received theoretical and practical training.

The pig improvement programme has led to US\$20,800 of financial benefit to West End Farms, attributable to the TAF intervention. Furthermore, it has yielded positive results across every measurable performance indicator:

- 1) the average litter size has increased from 8.3 to 10.8;
- 2) the average porker finishing weight has increased from 60kg to 70kg;
- 3) there has been a revenue increase of 20 percent since the start of the project; and
- 4) the sow/boar ratio improved from 17 to 44, increasing overall productivity.

The company's pig unit offers unique job opportunities for young men and women in rural Cameroon, whether they have had access to higher education or not. With the rapid growth of the pig unit, since the end of 2015, West End Farms has created ten new jobs, bringing the total staff working on the pig unit to 28. For further information on TAF's work with West End Farms see the case study on pages 46-47.

5. IMPACT ON FOOD SECURITY

TAF's ultimate goal is to contribute to improved food security in the African countries and regions in which AAF investee companies operate, by providing investees with expertise and support critical to their growth, and by stimulating and fostering innovation. There are two principal routes to achieve this objective; by increasing economic access to food, through raising incomes and creating jobs, and by increasing physical access to affordable, available and good quality food.

So far, the TAF-supported companies have been variable in terms of their reach: some reach hundreds of people directly, others reach thousands. Some projects are likely to significantly increase the companies' reach to BoP beneficiaries, but for the majority it is too early to see large scale results.

5.1 Economic access to food

TAF is primarily designed to focus on the 'economic access' dimension of food security by building and enhancing linkages with AAF portfolio companies to create jobs and raise incomes of small-scale farmers and other low-income participants in the value chain. Increased rural incomes from farming, micro-entrepreneurial activities, and jobs will increase household purchasing power, and will thus increase economic access to food.

For most of the TAF-supported inclusive business projects low-income people benefit as producers of crops. In some of these cases the inclusive business project offers the opportunity of a secured market for an existing crop (e.g. **Norish** in Ethiopia sourcing maize directly from smallholder farmers). In others the inclusive business project aims to engage with farmers for the production of a new variety (e.g. the production of yellow maize for **Moablaou** in Burkina Faso), and in others the project aims to change the way farmers engage in the value chain (e.g. **Goldtree** convincing farmers to sell them fresh fruit bunches instead of engaging in inefficient artisanal processing).

In all of these examples the overall objective is to increase incomes of farmers, either through additional income sources (new crops) and/or through increased productivity and better quality outputs respectively with the overarching objective to increase their economic access to food. Farmers involved in these projects also profit from a combination of capacity building (e.g. training, advice), access to inputs and/or finance, as well as access to markets.

Impact numbers

AAF portfolio companies that TAF engages with currently employ **3,728** employees

TAF is currently linking AAF portfolio companies to **14,000** producers, **25%** women

Income benefits to producers in 2016 was over **US\$1,000,000**

TAF is currently linking AAF portfolio companies to almost **2,000** micro-entrepreneurs

Income benefits to micro-entrepreneurs was over **US\$500,000** in 2016

“TAF was able to build on Moablaou’s pilot project to procure yellow maize from smallholders, developing a unique private sector led extension model. The support offers the opportunity to double the number of farmers currently being reached which, despite the model having demonstrated its viability, wouldn’t otherwise have happened.”

Benjamin Cousin,
TAF Portfolio Manager

ECONOMIC ACCESS TO FOOD		
COMPANY	COMPANY CONTRIBUTION	ADDITIONAL ACCESS AS A RESULT OF TAF PROJECTS
Goldtree	<ul style="list-style-type: none"> • 748 employees • Sourcing from 7,000 farmers (90% of supply) 	<ul style="list-style-type: none"> • Support to 3,000+ farmers • Aim to increase yields by 20% through new production and harvesting techniques
Goldenlay	<ul style="list-style-type: none"> • 346 employees 	<ul style="list-style-type: none"> • 1,841 micro-retailers have c. 60% more income • 22 bike peddlers employed, aim to scale to 94 • 2,693 farmers increased their income by c. 30-50% • Aim to benefit 3000+ additional farmers by the end of TAF
Meridian	<ul style="list-style-type: none"> • 2,000+ employees • Subsidiary grain trading company buys farmer crop 	<ul style="list-style-type: none"> • 30-60 new jobs • Aim to increase smallholder income by at least 20% for 6,000+ beneficiaries
West End Farms	<ul style="list-style-type: none"> • 105 employees • Facilitated market access for 200 smallholders 	<ul style="list-style-type: none"> • Access to finance scheme increased average income by 150%, but only 1 out of 2 cooperatives paid back the loan
Moablaou	<ul style="list-style-type: none"> • 50+ employees • Works with 150 female BoP distributors 	<ul style="list-style-type: none"> • BoP scheme will increase income for 150 entrepreneurs. • Jobs maintained • FPK smallholder scheme will increase income for up to 1200
Norish	<ul style="list-style-type: none"> • 70 employees (including temporary) 	<ul style="list-style-type: none"> • 800 farmers have planted maize, smart subsidies have ensured access to inputs, finance and markets
Avison	<ul style="list-style-type: none"> • 103 employees 	<ul style="list-style-type: none"> • Linking farmers to inputs and markets, aim to increase smallholder income by at least 20% for 500+ beneficiaries
TopCrust	<ul style="list-style-type: none"> • 234 employees • 120 BoP distributors 	<ul style="list-style-type: none"> • New BoP scheme will be piloted to increase volume of sales and employment/income opportunities for BoP distributors
Guanomad	<ul style="list-style-type: none"> • 72 employees 	<ul style="list-style-type: none"> • Outgrower scheme will increase incomes for up to 500 people

5.2 Physical access to food

The lack of 'physical access' to food is also a major concern in Africa. Many countries rely on imports for a large proportion of their food requirements. Many also lack basic infrastructure, such as secure storage and transportation networks needed to support a sustainable and efficient agricultural sector, and to distribute food from where it is produced to where it is consumed. Together, AAF and TAF will make important contributions to increasing physical access, another key dimension of food security. Already, AAF portfolio companies in partnership with TAF projects are working to increase supply, enhance access, and lower the prices of basic foodstuffs of critical importance to lower income families.



In the case of **Meridian** in Malawi, farmers will benefit through access to an innovative, tailored blend of fertiliser, along with agronomic advice from Meridian staff, and therefore improve their yields, leading to both the production of more food for consumption as well as greater profits from crops sold. Similarly, **Avison** in South Africa will be piloting a project to reach smallholders with their fertiliser blends. **Guanomad** in Madagascar sells guano-based fertiliser through local agrodealers and TAF has been developing a private sector extension initiative to improve access and utilisation of fertiliser for smallholder farmers.

As well as those projects to facilitate greater production of food crops, other TAF projects, e.g. with **Goldenlay** in Zambia and **Moablaou** in Burkina Faso, are designed to increase access to food to low-income consumers by improving BoP distribution networks. These projects also benefit micro-enterprises in the distribution chain.



Impact numbers

AAF portfolio companies that TAF engages with directly produce **20,000** MT of food per year

TAF BoP projects led to **50,000** eggs per day supplied to BoP

AAF portfolio companies that TAF engages sell **280,000** MT of fertiliser per year

TAF targets at least **20%** yield increases from better agricultural practices and input intensification

"TAF brings to my memory the song "you will never walk alone" as they have indeed been a huge pillar of support ... they have surpassed our expectations as they are constantly there to share ideas and help channel them in the right direction. TAF have become a great act in the Top Crust script."

Tosan Jemide,
CEO, Top Crust, Nigeria

PHYSICAL ACCESS TO FOOD		
COMPANY	COMPANY CONTRIBUTION	ADDITIONAL ACCESS AS A RESULT OF TAF PROJECTS
PROJECTS TO INCREASE PRODUCTIVITY VIA GREATER ACCESS TO INPUTS FOR SMALLHOLDERS		
Meridian	<ul style="list-style-type: none"> • 260,000 MT of fertiliser per year • Seed, salt, retail, grain trading 	<ul style="list-style-type: none"> • Fertiliser blends and guidelines developed to promote input intensification to demonstrate yield increase of maize from 2 MT/Ha to 6 MT/Ha, and of legumes from 1MT/Ha to 2.5MT/Ha
Avison	<ul style="list-style-type: none"> • 20,000 MT of fertiliser in 2016 	<ul style="list-style-type: none"> • Project seeks to demonstrate return on higher quality input usage on production
Guanomad	<ul style="list-style-type: none"> • 1,500 MT of fertiliser per year 	<ul style="list-style-type: none"> • Partnership with local research institute to demonstrate high production systems, results from potato trials showed increase from 26MT/ha to 40MT/ha
PROJECTS TO INCREASE ACCESS TO FOOD FOR LOW-INCOME CONSUMERS		
Goldenlay	<ul style="list-style-type: none"> • 150m table eggs per year • Soya oil • Spent hens 	<ul style="list-style-type: none"> • BoP project led to c. 50,000 eggs per day supplied to BoP consumers, scale up expected to at least double this number • Supporting c. 4,000 producers to supply soya
Goldtree	<ul style="list-style-type: none"> • Processing 15,000 MT of fresh fruit bunches into 3,000 MT of crude palm oil 	<ul style="list-style-type: none"> • BoP strategy for cooking oil to facilitate direct route to BoP market for 10% of oil
West End Farms	<ul style="list-style-type: none"> • 925 MT maize & soya for pig feed per year • 4,000+ porkers sold (c. 300 MT) per year 	<ul style="list-style-type: none"> • Pig productivity increased by 18% • Average porker sales weight increased from 60kg to 70kg • Limited success increasing yields of maize/soya
Moablaou	<ul style="list-style-type: none"> • 1m+ trays of eggs (c. 1,000 MT) per year. 	<ul style="list-style-type: none"> • Recovery plan and biosecurity intervention accelerated recovery from avian flu • BoP scheme will increase market share of eggs supplied to BoP consumers
Norish	<ul style="list-style-type: none"> • 8,000 MT+ corn-soya blend per year 	<ul style="list-style-type: none"> • BoP retail strategy for small packs of corn-soya blend awaiting company investment
Top Crust	<ul style="list-style-type: none"> • 7M+ loaves per year (over 6,500 MT) 	<ul style="list-style-type: none"> • Distribution strategy awaiting company investment • Increase in quantity of loaves produced from bakery optimisation project

“The TAF project is a great addition to the commercial activities of our outgrower department and helps to prove the case for activities that increase volumes and productivity. The GPS mapping of farms done by TAF is now embedded in the company’s operations; the value of this functionality was demonstrated by TAF and has created long term jobs within the company, which is a further indirect social benefit.”

Tim De Boeck,
Outgrower Manager, *Goldtree, Sierra Leone*

5.3 Indirect and systemic benefits

TAF’s objective, which is a mandatory consideration for the design of all its projects, is to bring about sustainable change. New business models and ways of operating have to be embedded by TAF’s portfolio company partner as well as other market players involved, and this change becomes sustainable when the ownership of a new idea or way of working is taken on beyond the life of the project.

Beyond achieving enduring change, projects also seek scale to maximise commercial and development returns. This can be achieved either through replication of an innovation by the original partner company (e.g. to new locations), or by others

copying what is seen to be a good idea. In many cases TAF is supporting companies to pilot new approaches which have not been seen in their local contexts before. Examples include introduction of novel crops to a region, new company practices which have potential to change the way an industry operates, and activities that influence Government policy. The level to which TAF can exert influence on players outside its main partners, and beyond the lifetime of a project, is limited, but there may be positive knock on effects in the local economy or market, as described below.

There are also significant ‘soft’ or indirect benefits of TAF’s work that are not captured by the statistics of beneficiary numbers. For example, the networking and learning facilitated between CEOs, service providers and field operatives in different geographies and sectors, or the space that TAF creates for companies to innovate outside their habitual comfort zone. Some of this arises naturally as a result of the relationships the TAF team develops with service providers and companies, but TAF also identifies specific knowledge sharing needs and uses platform projects to meet them.

The wide range of direct and indirect ways in which TAF engenders impact is summarised to the right.

Catalysing market change

Changing fertiliser practices in Malawi: Engagement with Meridian has huge potential for changing national fertiliser use. The company is testing new compositions of fertiliser blends for key crops in Malawi to provide an alternative to the single basal compound formulated 30 years ago. Engagement with the Government to incorporate the new blends in Malawi’s Fertiliser Input Subsidy Scheme will ensure they are available to the poorest farmers and become accepted as better options than the current one.

Facilitating palm oil production in Sierra Leone: Insights from the innovative peer-to-peer learning approach to extension implemented with Goldtree are already being shared with the wider portfolio, and TAF sees strong potential for replicating this approach elsewhere.

Raising bio-security standards for poultry farming in Burkina Faso: After successfully managing an avian flu crisis in 2015, Moablaou’s poultry farm is now considered the most bio-secure poultry farm in the region. The company is exploring options to set up a diagnostic laboratory for regular and routine health monitoring of the flocks, which could also be used by other companies in the region.



	PHATISA PORTFOLIO COMPANIES	DATABANK PORTFOLIO COMPANIES
	COMPANY TYPE: MEDIUM / LARGE	COMPANY TYPE: SME
	TA PROJECT FOCUS: INCLUSIVE BUSINESS SUPPORT	TA PROJECT FOCUS: CORE BUSINESS SUPPORT PLUS INCLUSIVE BUSINESS SUPPORT
COMPANY BENEFITS	New ways of working that secure supply chain, diversify the business, access new markets De-risking innovation First mover advantage	Improved business operations and growth
FUND MANAGER BENEFITS	Improved long-term performance and value Potentially increase exit opportunity/value	Stronger revenue/growth Supporting recovery plan
DEVELOPMENT RESULTS	Improved value chain linkages between companies and farmers or companies and low-income consumers Increased productivity, skills, market access and income for farmers New nutritious products for low-income consumers Demonstration effect of innovation and new models	Growth of SMEs in the food value chain Increased employment Increased access to agri-inputs, food supply, or food processing output
INFLUENCES ON THE WIDER ENTERPRISE AND INVESTMENT MARKET	Demonstrating innovative replicable models Influencing policy	Increasing viability and investability of African agricultural SMEs and the wider sector

Table 1: Summary of benefits to different stakeholders from TAF

6. LESSONS LEARNT ON DESIGNING AND IMPLEMENTING TA

The interventions presented in this report illustrate the wide range of technical support that TAF provides to AAF portfolio companies in very different African contexts. For example, while Avison and Guanomad both supply fertiliser, the former supplies sophisticated blends and satellite-informed farm management advice to large-scale commercial farmers in South Africa, while the latter harvests cave-mined guano in Madagascar, sold by rural agrodealers to local smallholders by the scoop. The AAF's portfolio companies do, however, share something in common; they have been selected and screened by the Fund Managers for their strong growth potential, and benefit from the investment and management support of the Funds.

In contrast to other development projects seeking private sector partners in the 'open market', TAF has privileged access to AAF portfolio companies, with confidence as to their integrity and their potential. Equally, the portfolio companies have privileged access to TAF, with confidence in its expertise and ability to both challenge and support. The wealth of experience that TAF has built over five years offers a unique insight into how TA can be designed and deployed with such companies, from honing performance through to transforming operational models.

6.1 When to deploy support

A fundamental consideration for TAF upon inception was the question of when to engage? For the Fund Managers, TAF potentially offered support for the due diligence process for deals that were nearing close, but it became clear that this was a less valuable utilisation of resources. There is an inherent risk in working with a company before the AAF's investment is finalised; if TAF were to commence work with a company whose investment deal then fell through, time and money will have been unproductive (from an investor perspective at least).

As with most similar facilities, TAF therefore decided to focus on post-investment support. This meant that there was a lag between the launch of the AAF Funds and the point where knowledge of investee companies and their needs was sufficiently understood for TAF's services to be employed. The resources in the TAF team, as well as project expenditure, reflect this trajectory of effort ramping up over the period of the programme. In the first two years TAF only employed a team of two, whereas now there are five staff managing the increasingly intense workload and close engagement with companies.

"It is not just about signing a contract with a service provider and getting on with it. A hands-on approach is essential. The TAF team need to be strong characters to work with the CEOs of AAF portfolio companies who are highly commercial and extremely busy dealing with the pressures of operating in difficult African environments."

Sarah Marchand, TAF Director, Technoserve (2011-2015)

6.2 Matching support to company size

The investee companies supported by TAF range in annual turnover from US\$1m to over US\$200m. If categorised by size, one TAF client company is large, five are medium and the remainder are small. TAF also directly works with micro-businesses when engaging with BoP entrepreneurs and rural agricultural enterprises. Whilst size of a business is not necessarily a proxy for its competence (a small company can also be very mature), larger companies generally have more advanced systems and processes, which reduce investor risk. TAF has a hypothesis that different size companies need different types of TA, and experience to date has largely born this out, with recommendations for engagement in Figure 5 to the right.

INDICATIVE COMPANY SIZES

LARGE:

Revenue of US\$15m+,
300+ employees

MEDIUM:

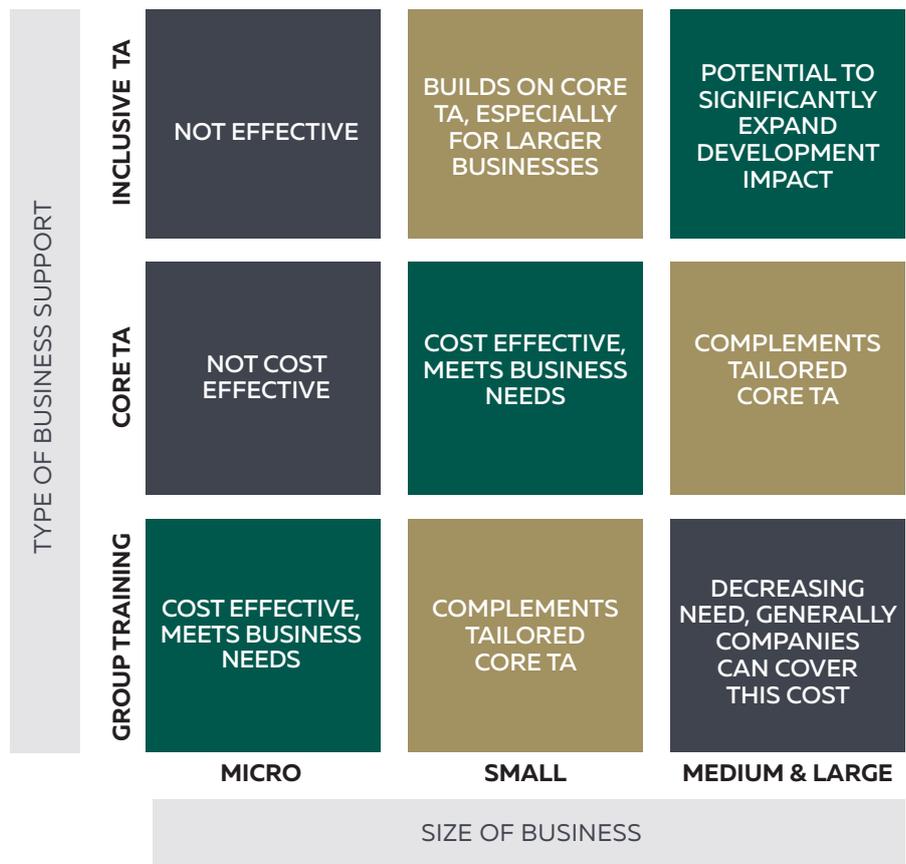
Revenue of US\$5 – 15m,
50-300 employees

SMALL:

Revenue US\$10,000 – US\$5m,
10-50 employees

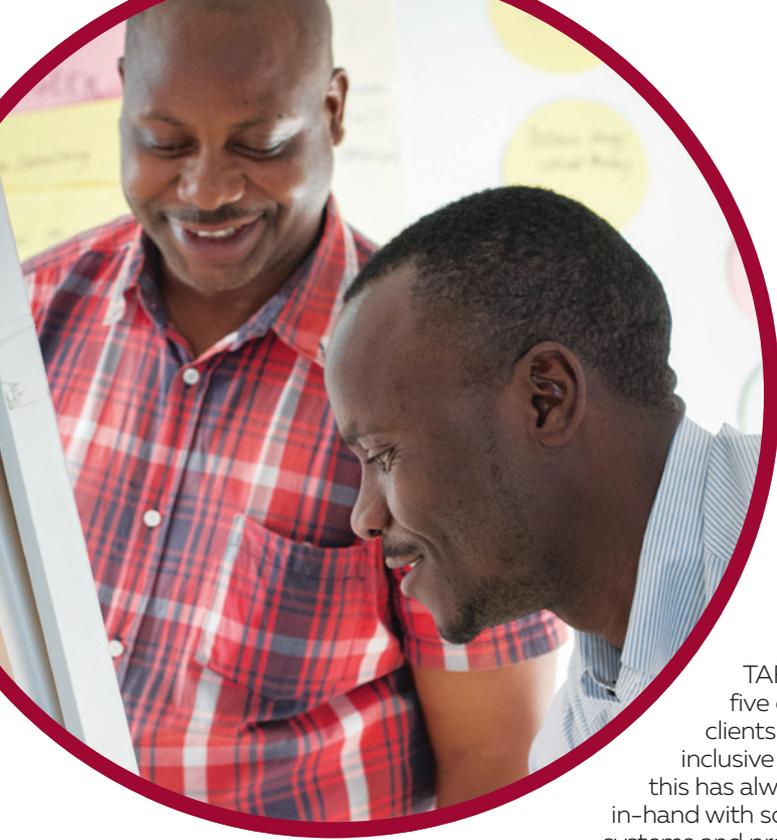
MICRO:

Revenue < \$US10,000,
< 10 employees



- Not appropriate
- Some focus
- Potential to significantly expand development impact

Figure 5: Recommended business support type by business size



The most prevalent micro-businesses involved in TAF's projects are those providing services to smallholder farmers, such as rural agro-dealers and input sellers, who are often also then aggregators of produce. For example, TAF has built the capacity of aggregators in Zambia who provide soya inputs to farmers. They then buy back the crop on behalf of partner sourcing company NGHL to supply **Goldenlay** for its chicken feed. These very small businesses can be effectively supported with standard training, which can be made even more powerful by using a 'training of trainers' approach to extend learning more deeply across farmer groups.

Strategic support is effectively provided by the Fund Managers to medium and large portfolio businesses, which are well established and it would not be appropriate to use development projects to address core operational issues. They are, however, able to consider the benefits of new and inclusive ideas and appreciate the focus and expertise that TAF can bring. The concept of localised soil testing and improving fertiliser blends for smallholders had long been something that **Meridian** had envisioned, but such ideas can lie dormant without the right partner to breathe life into them.

TAF has engaged with five of its SME portfolio clients to implement inclusive business projects, but this has always been done hand-in-hand with some core projects for systems and processes strengthening. A pertinent example of this was the urgent need to provide practical assistance to get **Moablaou's** table egg business back on track after it suffered huge losses of its chickens through an avian flu outbreak. TAF had the flexibility to respond rapidly to this need, and once this core business support had helped to get the firm back on course, the inclusive business projects to trial local sourcing and BoP egg distribution could be implemented.

6.3 Designing and resourcing technical input

The design of TAF's support is something of a 'panel beating' exercise, where the TAF team, the Fund Managers and the companies themselves co-create practical ideas to improve or develop performance. Furthermore, for the inclusive business projects, companies are required to demonstrate their 'skin in the game' by providing some form of matched resourcing, whether it be capital costs, funding for training or hiring new staff.

The range of TAF project types, and hence the length of support required, vary widely. Some are short interventions, others are spread out over a longer period of time. In many cases of more long-term support, TAF's experience has been that regular short injections of advice are more beneficial than a one-off consultancy. For example, at **West End Farms**, the service provider visits the farm on a quarterly basis and is available for remote support throughout; the company CEO sends weekly pictures of the crop to review progress. In all

cases, an ongoing dialogue between TAF, the company, the service provider as well as engagement with the Fund Managers is crucial.

On its journey to date, TAF has learned a great deal about how best to resource its projects. A significant investment in research was undertaken in the early years of the programme to build a database of trusted suppliers. This tool has provided TAF with an efficient means for matching service providers to projects rather than having to screen for competency for each tender. Recommendations made by the TAF Director and by the program's Mid Term Evaluation led to some streamlining of supplier procurement processes, which have enhanced TAF's ability to source the best supplier for the job. For example, sole sourcing can now be used if appropriate, for example when a company already has a strong working relationship with a specific contractor.

Regional consultancy firms are TAF's most commonly used type of service provider, followed by individual consultants and then local companies. TAF utilises the services of established management consultancies and NGOs, with strong track records in project design and delivery, and in one instance has worked directly with a market player, NWK, in Zambia. TAF has also contracted individual experts, highly specialised agricultural research organisations and Ivy League universities, e.g. to develop confectionery innovations, design an infrared guano quality management system and to develop a portable soil testing facility. On larger inclusive business projects, services are often delivered by a consortium of partners to cover the range of skills needed.

“When visiting the Goldenlay BoP project I interviewed some peddlers and realised they were not receiving their due commission. Subsequently, Goldenlay ensured that contracts were in place with the depot managers to ensure peddlers had standard contracts.”

Melanie Machingawuta, TAF Portfolio Manager

Ensuring that a project has the best fit of service provider is critical to success – a lesson that has been drawn by other TA facilities. The Business Innovation Facility, for example, found that investing effort, at the beginning and throughout the program, in identifying the right resource for delivering TA was vital. Designing and packaging the support was also then, “a major and complex task in a TA programme” for it to be targeted and effective¹.

TAF has had the occasional mismatch on this front; for example, a consultant used to recommend crop inputs on one project proved to have insufficient understanding of the local context, leading to a disastrous failure of the harvest. However, more often issues with service providers relate to the culture differences of consultants/ NGOs and the private sector. The TAF team plays a role in brokering these relationships through steering committees and ad hoc troubleshooting of misunderstandings when they arise. When the fit is good, a long-term relationship can be forged; **Goldtree** went on to permanently hire a pole-harvesting trainer following his work on the TAF-supported palm oil outgrower project, and **Goldenlay** are now directly contracting the TAF project manager for their BoP distribution scheme to assist in scaling it up.

Where service providers are local, they have greater insights and understanding of local contexts and TAF also recognises that selection of local service providers contributes to long-term local capacity building. For example, in the case of **Moablaou** in Burkina Faso, TAF support was used to hire two staff for the selected service provider and it is hoped that upon completion of support there

is a business case to keep them as part of the organisation. There can be disadvantages, however, of working exclusively with small / local service providers as they may not be accustomed to the requirements of large donor programmes such as TAF.

6.4 Oversight and delivery

Being able to source and oversee technical expertise regionally and internationally is a key element of TAF’s value addition to AAF portfolio companies. The TAF team play a key role in not only identifying, contracting, and managing service providers, but also in nurturing and lubricating relationships between service providers, client companies and the AAF Fund Managers. This would not be possible without a team that has a blend of development and private sector experience, and who are confident in developing relationships with strong characters. Furthermore, frequent travel is essential for team members to visit companies and projects, as well as regular electronic correspondence, to maintain the excellent communications.

Not only does the TAF team oversee service provision on projects, but also intervenes directly when there is an unforeseen issue or additional piece of support required that the company or service provider are unable to deliver. They are also able to draw on TechnoServe’s volunteer scheme for additional resources.

TAF’s inclusive business projects are typically engaged with large numbers of micro-businesses and BoP individuals, as well as the AAF portfolio companies themselves, and as such are seeking to facilitate change among a wide variety of market actors. To engender such change, identifying and leveraging the incentives of many different players to behave and operate in new ways, takes years. As implementation of outgrower schemes with WEF and Goldtree have shown, effective intervention also requires a deep understanding of the local political economy.

In fact, it is now generally understood that taking an inclusive business idea from conception to scale is (at least) a 10-year journey, with many ‘zigzags’ along the way. TAF can therefore be encouraged by some rapid uptake of innovations, most notably the **Goldenlay** BoP distribution model, which will transform the company’s approach to selling eggs within a five-year period.

¹ Caroline Ashley, Tom Harrison and Carolin Schramm. 2014. *Adding value to innovation? Lessons on donor support to inclusive business from the Business Innovation Facility pilot* http://www.inclusivebusinesshub.org/wp-content/uploads/2016/05/BIF_adding_value_to_innovation.pdf

“Outgrower schemes are complex and highly dependent on local contexts. They require a careful assessment of all involved stakeholders based on comprehensive criteria, which include social, political and economic considerations such as cultural norms and customs, perception of credit, economic motivation and visions.”

Benjamin Cousin, TAF Portfolio Manager

6.5 Learning and adapting

Some TAF projects have exceeded expectations, some have had mixed results, and for others it is too early to assess their long-term relevance to the company’s operations. As can be expected with testing new ideas, not everything goes to plan, but, if managed well, even pilots with poor results offer rich opportunity for learning. TAF monitors project progress closely and is able to respond and adapt plans according to new information, and this flexibility is key to maintaining an eye on the final goal. Some examples where TAF has needed to change course are shown below.

Project activities can also lead to unexpected or unplanned benefits. A project to improve Malagasy company **Guanomad’s** sales of fertiliser to smallholders (hence improving their yields) has led to an opportunity for a partner NGO to become a self-sufficient private sector extension provider. In Zambia, **Goldenlay** trialled a point of sale device for their new distribution model, and have found the system so useful for management that they would now like to use it for all their sales.

ISSUE	EXAMPLE	LEARNING
Differing local contexts	An outgrower scheme was piloted with two cooperatives for the same purpose. Collaboration with one was sustained but failed with the second.	Careful assessment of the local social, political and economic context is needed for successful implementation of outgrower schemes.
Lack of sustainable results	Developing the skills of crop aggregators to sell inputs to smallholders on credit and recoup through crop purchases had limited success. There was poor uptake among smallholder farmers, and the post-project involvement of aggregators was not maintained.	Realistic timescales and greater support are needed to embed sustainable change, particularly when expecting individuals to take on new ways of working
Project objectives turn out to be unrealistic	The objective of upskilling agrodealers to improve their capacity to advise smallholders on fertiliser use proved too ambitious upon project implementation.	There are benefits of testing an idea with a pilot, and monitoring it closely from the start. The principle of ‘fail fast’ was vindicated in this case.
Lack of communication between stakeholders	Although initially reported to be successful, on closer examination of a new distribution model ‘new’ sales were in part cannibalizing other company channels. Unfortunately, problems with managing the model were not shared with TAF and so they were unable to support it further.	Good communication between the company, TAF and the Fund Manager are essential. Learning from challenges and failures are key.



7. CONCLUSION

The first five years of TAF suggest there is high value to be found in this unusual model of a donor-funded TA facility that sits alongside an equity fund. While the performance of individual TA projects is predictably variable – some far surpassing expectations and others needing modification – it is clear that TAF is delivering impact on four different levels as a result of its design features.

1. Business development support helps SME Fund portfolio companies to strengthen their capacity in the short term and improve their strategic positioning and growth in the longer term.
2. Inclusive business TA projects implemented in partnership with portfolio companies enable innovative models to be piloted and scaled, thus building future commercial competitiveness.
3. TAF's work with portfolio companies complements and enhances that of the Fund Managers, assisting them to deliver returns on their portfolio through risk reduction and value addition.
4. TAF's projects enable its donor investors to target food security through an innovative model of private sector collaboration. Where other development programmes struggle to tailor their offer or to find the right private sector partners, TAF has access to the boardrooms of rising stars in African agriculture, and arrives at the table pre-qualified to leverage its expertise and the companies' capacity to drive development and commercial outcomes.

The overarching combined objective of the AAF and TAF is to build the performance of the African agriculture sector. At the macro level, TAF's projects complement AAF investments to enhance the overall performance of portfolio companies, that are transformed to become sustainable contributors to their local economies and to African food security. At the micro level, TAF's comprehensive toolbox of project mechanisms and extensive knowledge of service providers render it well equipped to deliver its interventions. The program has the adaptability to respond to the inevitable hurdles that all agricultural projects encounter on the African continent, but also to seize opportunities to promote and share innovations.

TAF's experience also illustrates many lessons about TA deployment:

- One TA fund can serve both large and small companies with both core business and inclusive business foci;
- Less mature companies tend to require core business support, and larger, more established companies are more suitable for inclusive business inputs;
- Flexibility to company needs and timings are key;
- TAF's up-front investment in building a knowledge-base of strong local and regional TA providers has been vital in being able to effectively source support.

The range of work TAF oversees includes the practical challenges of large-scale smallholder enrolment in contract farming models through to more direct technical assistance to portfolio companies via strategic consulting advice. The very diversity of the projects and the companies through which they work mean there are more chances for TAF to cross-fertilise ideas between industries and geographic contexts, and for optimizing inclusive business models through adaptive management. While projects differ greatly in design and duration, they are underpinned by the core principle of engendering sustained change.

TAF's work is not yet done; an intensive period of activity is planned for its final phase until 2018. But even after the program concludes, the portfolio companies and other partners that have been engaged will continue to develop the models that support food security for thousands of Africans, from greatly improved and more accessible fertiliser blends for smallholders, to more extensive last-mile distribution of eggs, and numerous opportunities for smallholder farmers to sell their produce for a fair price to a secure market.

8. AFTERWORD

As this report has shown, AAF's TAF has added significant value to Phatisa's development equity offering across the food value chain in Africa.

It has been able to leverage funds that would not normally be associated with commercial investment and deploy this capital in a way that can make huge social impacts in areas where commercial investors might not naturally invest. The result is a win-win for communities, portfolio companies and investors. Our experience has shown that a TA Facility working side by side with the Fund Manager, and in collaboration with the portfolio company, provides the perfect platform for success. For Phatisa, our hope is that the experiences, lessons learnt and positive outcomes of TAF will lead to increased support for a 'TAF 2' to work alongside our successor fund, the Phatisa Food Fund 2, to continue improving livelihoods in Africa.



Stuart Bradley,
Joint Managing Partner, Phatisa



Through the TAF-assisted projects on our investments, we have realised the importance of such a global socio-economic partnership between the EU, IFAD, Technoserve and the AAF Fund Managers and their investee companies. The partnership has also illustrated the strong need for the alignment of public-private purses and local community buy-in to foreign investments.

As all parties work towards an economically empowered African continent with the ultimate objective of increasing food security capacity, job and income creation, skills capacity building and the widening of the fiscal base.

At Databank we have come to embrace the challenges which accompany a technical assistance facility, such as the close monitoring and constant review required to ensure convergence of commercial and development objectives. Through experiencing this strategic partnership with TAF, our conclusion is that for private equity investors to provide excellent returns, and at the same time achieve impact at both business and community level, there is greater need to continue using blended investor models. We look forward to the continuation of this global partnership.



Dennis Matangira,
Managing Partner,
Databank Agribusiness Fund Ltd



CASE STUDY / GOLDENLAY

ZAMBIA

Core operations:
egg production

Production volume:
\$150m eggs p.a.

Number of employees: 346



Modernisation of Goldenlay

Goldenlay's origins as a table egg producer date back to farms developed in the 1950s in Luanshya, in the Copperbelt Region. The current management team invested in the business in 2005, and oversaw the modernisation and expansion of its operations. AAF's investment in 2012 helped the company reduce its reliance on external suppliers by developing its own maize and soya farms as well as enhancing storage and feed processing facilities, and addressing fair labour, environmental and biosecurity standards. Goldenlay has since doubled its production capacity from 250,000 eggs per day to 450,000 eggs per day.

Today, Goldenlay is the largest producer and distributor of eggs to Northern Zambia, with an estimated 20 percent market share. The competition is fierce, however, with a steady stream of new entrants and a constant pressure on price. Goldenlay positions itself as the quality and price setter in the market, with other producers undercutting their prices by 1 Kwacha per egg.

'Last-mile' distribution

Nowhere are the market dynamics of egg sales seen more clearly than in the markets where companies send their trucks on a daily basis. Local middlemen haggle over prices of jumbo, regular and small eggs, which they then onsell to local market stall ('ntemba') owners. Goldenlay had seen the downstream distribution of eggs beyond the wholesale point as an external issue, beyond its control and of little relevance to its commercial performance. However, research commissioned by TAF into the egg distribution model highlighted ways to extend Goldenlay's reach to more consumers in a cost-effective manner. The research also showed how the benefits could cascade down the value chain to the ntemba owners and the final consumers of eggs.

Goldenlay agreed to pilot a novel distribution scheme based on depots and bicycle peddlers. The ability of these peddlers to penetrate the peri-urban markets beyond where trucks can reach would enable Goldenlay direct contact with ntembas, building brand and loyalty as well as enhancing the profitability of these micro-businesses by cutting out the middlemen. In terms of development objectives, the project would facilitate 'getting the cheapest protein to the furthest point'.

This apparently straightforward concept required a great deal of detailed planning by the TA provider, Andisa Agri, including:

- Mapping each locality and identifying optimal distribution centre locations (using Google Earth to determine areas of dense population and high foot traffic) and designating each peddler's area to ensure there were enough target ntembas (c. 100 / area);
- Designing a branded pushbike with a carrier for 40 egg trays (1,200 eggs) suitable for covering a radius of 2.5km – 5km per day;
- Efficiently tracking sales by designing a bespoke point of sale (PoS) system;
- Designing processes to manage the depots and peddlers including a commission-based remuneration system;
- Setting up an SMS system and hotline which ntembas can use to call Goldenlay staff/peddler at any time to request new stock and/or raise a complaint. Goldenlay can also send important information about price, product and market trends.

Five pilot sites were chosen and implemented with TAF support. The initial target for the project was to generate sales of 6,000 eggs per day but an astonishing 60,000 is now being achieved within six months of implementation. This success has moved the sales bottleneck from the distribution point to the ntembas, who have limited credit for buying stock. Despite this constraint, 80 percent of ntembas surveyed reported an average of 60 percent increase in egg sales since registering with Goldenlay.



ZAMBIA

- > Research and then detailed planning supported by TAF paid off to develop a successful depot and peddler-based distribution scheme for egg-producer Goldenlay. The system will be scaled from a pilot to the primary distribution model, which also benefits micro-entrepreneurs and 'last-mile' consumers.
- > TAF support to develop soya outgrower models for Goldenlay and its partner company NGHL have had mixed results, but learning has strengthened future project design.

"While being integrally involved in the process of planning and implementing, consultants should therefore never be 'the implementer,' if the project is going to be sustainably successful in their eventual absence."

Warren van Niekerk,
Consultant, Africa Wide Consulting

The success of the pilot has transformed Goldenlay's distribution strategy; a three-phase scale up plan to 36 depots with 94 peddlers by 2019/20 is underway, opening one new depot every month. The company previously used trucks for 80 percent of sales with 20 percent to supermarkets. The new distribution centre/peddler model will have the capacity to be able to absorb Goldenlay's entire current production once implemented, although it is envisaged that 20 percent will continue to be sold through trucks and supermarkets to serve different markets.

At the same time as scaling up, the TAF Goldenlay team are working to hone the model, led by service provider Warren van Niekerk. Customer service is a priority to grow brand loyalty, and three staff have been hired to specifically engage ntemba clients, maintain an up-to-date client database and iron out any issues raised. The biggest challenge has been instilling customer care principles into the peddlers; it has proven difficult to find individuals who are educated beyond basic literacy who are willing to take on such a physically demanding job. Another challenge has been training the peddlers in proper use of the PoS units; unless these are correctly deployed, management information will be compromised.

Number of ntembas reached:
1,841 (923 women owned)

Total ntemba revenues from Goldenlay egg sales: \$966,000

Number of jobs created along the distribution channel: 50 (16 female)

Addressing input supply: soya outgrower schemes

At the other end of Goldenlay's value chain, procuring sufficient soya for chicken feed (which accounts for c. 75 percent of the cost of producing an egg) is a constant pressure and critical component of the business. Goldenlay's expansion means the company now requires 6,500 MT of soya per year, and TAF saw an opportunity to develop outgrower models to service this need via local smallholder farmers, that would also deliver BoP benefits through a profitable crop, and a reliable market. This was a departure for Goldenlay, who typically only buy smallholder produce if delivered to the factory, sceptical of the high transaction costs and benefits of engaging directly with smallholders.



The TAF-supported outgrower projects thus focused on identifying local aggregators who could support smallholder supply through increased farmer organisation and services including technical assistance, input distribution, product aggregation and transport to output markets. For many farmers in the target areas, soya was a new crop, but if well managed could be three times more profitable than maize. The projects implemented illustrate the variability of interventions tested and the associated success rates, which reflect the steep learning curve for TAF and Goldenlay in finding a model that delivers sustainable results.

Independent aggregator model

Through two different TA providers, TAF has been testing the independent aggregator model as a means of organising smallholder farmers since 2013. This is based on TechnoServe's 'local aggregator' model where local individuals are chosen because they have a relationship with smallholders, beyond a business partnership. Farmer organisations in these contexts have traditionally attempted to provide these services, but in many cases not been able to meet farmer needs effectively, suffering challenges of sustainability, efficiency, and leadership.

Local soya aggregators were recruited and upskilled to provide training and inputs to smallholder farmers as well as facilitate their market access. In the first project, managed by TechnoServe Zambia (2013–2015), activities had a positive impact on smallholder incomes (with an average c. 30 percent increase for c. 400 participating farmers). Approximately 20 aggregators and 632 farmers were trained, of which 63 percent of farmers adopted improved practices.

However, little product was delivered to Goldenlay (c. 93 MT towards the 1,000 MT target), and aggregators were not sufficiently incentivised to provide smallholder services or continue in their roles after the project. Aggregators were unable to earn a profit because they were limited by Goldenlay's buying price, and had no access to trade finance to pay farmers for their soya on delivery, which would have reduced side-selling.

With limited buy-in from Goldenlay at the onset of the project, increasing volumes rather than identifying other market opportunities was a miscalculation by TAF management. Linkages to input suppliers were more successful; for example, linkages to MRI Seed resulted in the certification of 15 aggregators and increased access to and use of seed by smallholder soya farmers (c. 60 percent adoption). In summary, without incentives for smallholder farmers to supply aggregators, aggregators failed to generate the incomes required to create sustainable businesses. The modest but positive results thus largely came from direct intervention from TechnoServe Zambia staff, and not through aggregators, as intended. Given the early stage of soya production in Zambia at the time, the project laid a strong foundation in terms of soya promotion and linkages amongst market actors, but failed to move the needle radically in terms of sustainable soya aggregation by local micro-entrepreneurs, to increase smallholder productivity and market access beyond the life of the project.

iDE (an international agricultural NGO) was thus contracted in 2015 to build on TechnoServe's pilot; leveraging iDE's farmer business adviser (FBA) model in horticulture and maize developed via the SIDA-funded SHARED programme (US\$2.1m to capacitate 200 FBAs and 20,000 farmers). To date, 500 TAF-supported smallholder farmers have been linked to market via 25 FBAs; and 752 smallholders trained. Although soya volumes delivered to Goldenlay have slightly increased since the prior project, only 50 percent of targeted soya volumes were delivered to Goldenlay (c. 110 MT in the first season). A key challenge for the local aggregator model continues to be the weak value proposition of the aggregators. Under the iDE project, FBAs have weak connections with buyers and are not equipped with sufficient capacity or finance to compete in the soya market, which inhibits them from buying crop from smallholder farmers during the marketing season. These issues are being addressed in the last two seasons of the project, with the project ending in March 2018.

3SP Follow-on (iDE) results achieved to date

Number of farmers reached with agronomic training and TA: 752

Percentage of beneficiaries adopting taught practices: 66%

Number of farmers who received input financing: 150

Number of farmers who increased their income: At least 500

Percentage Increase in average productivity per farmer 39% (from 0.7 MT/Ha to 1.09 MT/Ha)

Smallholder soy incomes mobilised At least c. \$130,000



Private-led outgrower scheme

In 2014, Goldenlay formed a partnership with cotton aggregator NWK to form NGHL as another means of accessing smallholder soya and maize. TAF implemented an outgrower project to increase soya supply and farmer productivity leveraging NWK's cotton extension and distribution network. NWK was incentivised by its interest in expanding to the Copperbelt where the TAF project would co-fund expansion of NWK's extension staff, aggregators and farmers in a new area. TAF hoped that working with an established private company would support a more commercially sustainable model to increase smallholder productivity and soya supply (with stable access to input pre-finance, quality technical assistance and a guaranteed market).

In October 2015, NWK was thus contracted to manage a smallholder soya support scheme until March 2018. A crucial element of the project has been a smart subsidy in the form of loans for farmers to buy inputs; the smart subsidy has served as an effective risk share mechanism to unlock value chain financing. NWK pre-financed all 1,941 farmers recruited (for seed, inoculant and weather insurance) via a team of aggregators (who also distributed loans and sold inputs). TAF provided 25 percent of the input finance in the first year, will provide 10 percent in second and then NWK will carry the full loan independently. The risk sharing mechanisms tested have proven attractive to the private sector and offer a testing ground to assess farmer repayment behaviour and establish relationships between farmers and companies.

Side selling by the farmers was contained by high contact time, and c. 1,500 (75.5 percent) farmers sold their crops to NWK aggregators in the first season. Smallholder yield increases of 45–65 percent are already being seen. In addition, 87 percent of loans (by value) were repaid. The incentive of aggregators to recruit farmers and recoup the loans in the form of commission is a model that is proving very effective, and NWK is confident of the sustainability of the approach and plan to replicate it elsewhere.

Summary of NGHL project results achieved to date

Number of farmers reached with agronomic training and TA: 1,976

Percentage of beneficiaries adopting taught practices: 75%

Number of farmers who received input financing: 1,941

Number of farmers who increased their income: At least 1,493

Percentage Increase in average productivity per farmer: 42% (from 0.9 MT/Ha to 1.3 MT/Ha)

Smallholder soya incomes mobilised: At least c. \$280,000

Vision going forward

For poor families in Zambia, the TAF projects have presented opportunities for increased access to affordable eggs and a more profitable alternative crop to maize.

Goldenlay needs to capitalise on all its advantages to maintain its market leading position and to drive towards the ambition of a 30 percent market share. In terms of the novel BoP distribution model, other players are likely to copy it, but as the Goldenlay sales executive, Bright Malumani, rightly points out, "what makes us unique is systems – our real-time tracking". These systems have been very carefully designed and will not be easy for others to replicate. The collection of development metrics from the systems has also delivered a commercial advantage, as they provide the company with detailed statistics to help make marketing decisions.

In terms of outgrower schemes, TAF's projects are turning a corner having had an uneven start. The introduction of soya to Northern Zambian smallholders provides a new, more profitable revenue stream for them and a local source of feed input for Goldenlay. Longer term, promotion of crop diversification will protect farmers from climate and market fluctuations, rather than relying solely on maize.

CASE STUDY / GOLDTREE

SIERRA LEONE

Core operations:
palm oil production

Production volume:
2,800 MT p.a.

Number of employees: 750



The oil palm is the main tree crop in Sierra Leone and prior to the civil war in 1991, palm oil production in the country was estimated at 47,000 MT per annum. By the end of the 10-year civil war in 2002 this had fallen to 35,500 MT, with several thousands of smallholder-owned plantations neglected and abandoned and mills destroyed or closed.

In 2011, Phatisa made a US\$10m initial investment to re-establish plantation and milling operations in Goldtree, a company located in a remote region of Sierra Leone's Eastern Province. Since then, Goldtree has established itself as a large scale, commercial palm oil plantation and milling company currently replanting 700 Ha and processing close to 15,000 MT of fresh fruit bunches (FFB) per annum for production and local distribution of crude palm oil.

Prior to Phatisa's investment, the nearby town of Daru was noticeably poor, with little economic activity. Today, Daru is bustling with activity; the rehabilitation and expansion of Goldtree, the buying of fruit from local outgrowers, and the employment of hundreds of local people in the plantations, nursery and offices have enhanced the local economy. Since 2011, more than 50,000 Sierra Leoneans have been directly and indirectly positively impacted by Goldtree's operations.

The company's business model is based on getting a small proportion of FFB from their nucleus plantation, and the vast majority (90 percent) from the estimated 30,000 hectares of smallholder outgrower palms spread over 6,000+ farms within a 40km radius of the mill. Volumes sourced from local smallholders have increased steadily since the mill became operational but the company faced a range of challenges around their smallholder-based business model.

When operations started in early 2013 Goldtree faced numerous constraints including: poor infrastructure impeding transportation of fruit to the mill; poorly maintained farms; no harvesting during the rainy season; low yielding trees past their economic prime; limited farmer skills; and little access to inputs such as seedlings, fertiliser and labour. At that time, most farmers were also processing their own oil from harvested fruit for sales to local oil traders, so there was a need for raising awareness about the new market opportunity with Goldtree to sell fresh fruit, as opposed to processed oil.





- > TAF's support for Goldtree, a palm oil production company in Sierra Leone, aims to assist the company to increase volumes of fresh fruit bunches sourced from local smallholder farmers.
- > The outgrower scheme is based on an innovative farmer peer-to-peer learning approach and aims to work with 3,500 farmers by April 2017.

Setting up a fresh fruit bunch supply chain for palm oil production

TAF saw the opportunity to achieve a significant impact on the incomes of local smallholders by supporting Goldtree in their efforts to set up a FFB supply chain through an extension model. To this end, between 2013 and 2015 TAF support was provided across a range of areas:

- A three-month consulting assignment to analyse the smallholder economics of oil palm, develop a financial product for replanting, and identify potential funders;
- A five-month project to put together a development and maintenance plan for roads linking smallholder outgrower farms to Goldtree buying stations;
- A two-year smallholder support program to provide farmer training, set up demonstration plots, facilitate access to finance for transport and inputs, and to support (re)planting of at least 50 Ha of oil palm trees.

The modelling of smallholder economics suggested that it made more sense to try and raise grant funds rather than debt finance for outgrower replanting. The study has proven useful for discussions with potential grant funders, which are currently ongoing. The development of a road map and development plan has also proved valuable for Goldtree, and resulted in a three-year road maintenance program. The company estimates that road improvements contribute to a 20 percent increase in FFB delivered each year.

Although the implementation of the smallholder support program was severely affected by the outbreak of Ebola Virus Disease in mid-2014, there were some considerable achievements. The project succeeded in sensitising 6,400 farmers about the market opportunity with Goldtree. Over 100 Oil Palm Growers Associations were formed and trainings conducted with the leadership team of each association. Over 300 farmers were also successfully trained in pole harvesting and the Ghanaian pole-harvesting trainer was subsequently hired by Goldtree as a permanent member of their team.

Over the same period Goldtree set up an outgrower department, developed a network of buying stations closer to the villages and started to provide transport of the FFB to the mill. The combined Goldtree and TAF efforts saw the volumes sourced from smallholders double from approx. 5,000 MT in June 2013 to almost 10,000 MT in June 2015, but volumes still significantly remained below the original mid-term target of processing 60,000 MT of FFB/year. Rehabilitation efforts, critical to maintaining productivity of oil palm trees, remained below initial expectations. Access to finance for inputs and seedlings remained an unresolved constraint and the Oil Palm Growers Associations were still extremely new and yet to have relevance to the majority of oil palm growers.

Pole harvesting is a safer and more efficient way to prune fronds and harvest fruit from tall palms. Traditionally in Sierra Leone these tasks have been performed by 'climbers' who risk falling from the trees, and even encountering snakes, while harvesting in the canopy with a rudimentary chisel. Due to these previously unsafe techniques, harvesting was limited to the dry season resulting in less fruit being supplied to the mill.

Innovation in extension: focus on soft skills and peer learning

A follow-on smallholder support program was therefore initiated in April 2016 to focus on strengthening the OPGAs, addressing access to finance for rehabilitation and defining the optimal model for replanting.

Initial results are promising; instead of the previous top-down driven approach for the formation of farmer groups, the new service provider has adopted an innovative 'farmer to farmer' approach for the provision of extension services, with a particular focus on relationship building, soft skills, active listening and peer learning. To date, 125 farmer groups with 10-15 farmers each are receiving training in agricultural practices and have started to effectively work together. For example, slashing of farms - required to improve access to the trees and to improve yields, but hard and physical work for which many farmers faced lack of motivation previously - is now done jointly by group members on each other's farms based on a weekly rotation schedule. The project team is confident it will reach its target of 3,500 farmers across 200 groups by April 2017 and TAF will share the learning from the new extension approach with other companies and projects.

Number of farmers sensitised about the market opportunity with Goldtree: 6,400

Number of farmer groups receiving training in agricultural practices: 125

Number of farmers to be reached with extension services by April 2017: 3,500

"The situation was new for everyone. Farmers were not used to selling fresh palm fruit bunches and we didn't have specific experience in buying the fruits. The first year was a big learning process. Despite all the challenges we faced we were able to learn from our failures and improve."

Tim De Boeck,
Outgrower Manager,
Goldtree, Sierra Leone

Over the years, levels of trust between the farmers and Goldtree have increased significantly. However, one remaining issue that impedes the volumes of fruit sold to Goldtree is the regular provision of short-term loans to smallholder farmers by local oil traders. Many farmers are cash constrained and unable to save for medical bills or school fees. The informal loans address these issues, but come with very high interest rates and the requirement to sell processed oil to the oil traders at the end of harvest. To break the cycle of indebtedness and increase the volumes of FFB sold to Goldtree, an element of current TAF support is focused on designing a school fee loan product, in collaboration with a local community bank.

In addition to the smallholder support project, a separate TAF project is also currently being implemented to evaluate palm oil BoP distribution opportunities. Support involves a market assessment to analyse the downstream distribution chain to the end consumer, with the aim of identifying opportunities to support local distributors and extend the reach of Goldtree's high quality and hygienic oil.



CASE STUDY / MERIDIAN

MALAWI

Core operations: fertiliser blending and agri-retail

Production volume: 260,000 MT p.a.

Number of employees: 2,500



Meridian is a leading manufacturer (blender) and distributor of fertilisers, seeds and other farm inputs, and trader of agricultural commodities. It has six business units in Southern Africa and transports hundreds of thousands of tonnes of agricultural commodities. With the investment of AAF, these volumes are expected to increase by 50 percent in the medium term on the back of regional expansion.

Meridian's operations in Malawi include fertiliser production and distribution, as well as a network of agro-dealerships throughout the country operated by the subsidiary companies of Farmers World and Agora. When the Government of Malawi introduced the Fertiliser Input Subsidy Scheme in 2004, significantly reducing volumes sold directly through rural retail stores, it was imperative for Farmers World to secure and maintain supply contracts to the Subsidy Scheme, at the same time as diversifying sales from its retail chains into other agri-products.

The use of correct fertiliser is an important factor in maximising agricultural productivity. Malawian smallholder farmers have been using one single basal compound, formulated 30 years ago, and developed when the priority was to deliver high nutrient fertiliser at the lowest cost possible. While this blend was appropriate at the time, repeated use over this period, coupled with a lack of conservation agriculture techniques, has severely depleted soils of some critical nutrients. The issue is recognised by agricultural experts, but to date there has been little progress on initiatives to make suitable fertiliser blends and agronomic advice available to smallholder farmers in a sustainable manner. Founding partner and a Director of the Meridian Group, Dimitri Giannakis, keenly understands these challenges and has long believed that provision of some straightforward advice, alongside better basic inputs, would make a big difference to the crop yields that smallholder farmers could achieve.

Developing new fertiliser blends for smallholders

Tailoring fertiliser for the smallholder market was 'on the outer edge of commercial viability', or at least a very long term project, for Meridian. When discussions began with TAF, Dimitri realised that the concept of localised soil testing and blends for smallholders was one that TAF could help the company achieve. The value addition that TAF could offer was both de-risking such a project and bringing the energy, focus and expertise to make it happen.

In 2015 a proposal lead by the African Fertilizer and Agribusiness Partnership (AFAP), partnering with Columbia University and AgMark, was selected to implement a pilot,

the Productivity Improvement Programme for Smallholders (PIPS), in the Central Region of Malawi. Their innovative approach was based on using 'SoilDoc' - a portable soil testing kit developed by Columbia. SoilDoc offers the advantage of rapid results, as opposed to sending samples to be tested in South Africa, which can be an expensive and slow process. The analysis is less detailed, but still sufficient to provide important information about minerals and nutrients in the soil.

The project hired 30 agronomists to collect and test over 2,000 soil samples, and to provide advice on good agricultural practices to smallholder farmers. These staff were dubbed by the project team as 'agronauts' - a label that the team have embraced, to convey the intention to harness the latest in science and technology to support farmers in making data-driven agronomic decisions.

SoilDoc was developed by Columbia University with support from the Alliance for Green Revolution in Africa (AGRA). While soil test kits have been around for a long time, none have been accurate enough to be really useful. SoilDoc is a portable, on-farm soil testing kit that combines wet testing chemicals and miniaturised commercial laboratory equipment, so that field workers can conduct laboratory-grade tests. The results of the tests are sent by SMS to a central website and recommendations returned to the extension agent to enable rapid advice on tailored fertiliser and organic inputs to smallholder farmers.



- > Meridian, one of the leading producers and distributors of fertiliser in Southern Africa, has used an innovative mobile system to collect and test over 2,000 soil samples with TAF support. Using this information, they are developing tailored fertiliser blends for smallholder farmers in Malawi.
- > These blends are being used for demonstration plots, with the aim of reaching an initial 6,000 farmers with fertiliser sales and so increasing their crop yields by up to an estimated 20 percent.

Following the results of the soil analyses, a technical manual was produced by the project partners, so that more specific advice could be provided by the agronomists to farmers in each area, according to the local soil type and crops they wish to grow. The soil analyses also enabled Farmers World to design new fertiliser blends to suit five of the most popular crops (maize, soya, groundnuts, cassava and sweet potato) for use in the Central Region soils. To promote the effectiveness of the blends, two demonstration plots are being set up at each of the 30 Farmers World stores in the pilot catchment area. The demonstration will include a 'control' with no fertiliser, one using the official standard Malawi blend and then plots with the new blend at two different yield levels.

Facilitating adoption and distribution of the new fertiliser blends

At the time of writing the planting season is underway and the project is optimistic of convincing results from the demonstration plots, all being well with this season's rainfall. Government and industry representatives will be invited to visit the plots to facilitate the process of gaining regulatory approval for the new blends to be sold as retail products. In addition, it will be critical for the blends to be incorporated in the Fertiliser Input Subsidy Scheme for them to be available to the poorest farmers and to become accepted as better options than the current one.

Following the demonstration plots, Meridian, with support from TAF, will be continuing to develop relationships with smallholder farmers to grow trust in the agronomists and the new blends. Recognising that customised fertilisers are only part of the solution, the goal will be to continuously build on knowledge and experience gained from the field to confidently deliver a holistic package of inputs and sound agronomic advice to farmers, to increase yields and incomes and at the same time drive sales for Meridian. Given the cash flow difficulties for smallholder farmers, TAF is also looking to facilitate a smart subsidy scheme so they have a better chance of affording quality inputs.

Sheila Keino, the PIPS project manager, believes that a key part of the project's success to date is due to a partnership she characterises as "development at the heart of the private sector". The PIPS team is embedded in the Meridian offices and work seamlessly with the senior management there. The next development will be to fully integrate the agronomists into the sales and marketing team to fully activate their commercial roles. Finding, training and retaining the right staff is one of the primary challenges of the project, and significant attention is being given to operational processes to ensure that the new roles fit alongside the established branch management procedures. In 2017 Meridian will establish a Smallholder Farm Services unit as an evolution of the PIPS, to demonstrate the intention to fully incorporate the agronomists into the business in the long term.

Increasing yields for 6,000 farmers

There is no doubt that the PIPS pilot could lead to a sea change in the quality of fertiliser and associated inputs advice to Malawian smallholder farmers. 6,000 farmers will be reached by the PIPS pilot, with estimated potential crop yield increases of up to 20 percent. Dimitri Giannakis knows that stamina and commitment over several years will be needed to see the project successfully scale up, but the result could be transformational for the business, the Malawian fertiliser industry and for productivity for millions of smallholder farmers.

Beyond the foremost benefits to Meridian from PIPS of increased sales, the introduction of SoilDoc can also be used for soil testing to improve the productivity of commercial outgrower schemes. The company will also be able to make good use of the household survey data collected to target farmers (e.g. by SMS) with marketing of appropriate products. This data is also potentially valuable for smallholders; it could provide a platform to track their productivity and income to serve as a proxy for a financial 'credit history' to facilitate access to micro-finance. A further innovation for mutual benefit could be the development of smaller packs of fertiliser which better suit smallholder needs, hence increasing uptake, and therefore sales, of the new blends.

CASE STUDY / WEST END FARMS

CAMEROON

Core operations: mixed farming enterprise, production of pork, maize and soya

Production volume:
925 MT p.a.

Number of employees:
37 + up to 50 seasonal



West End Farms (WEF) is a 300 Ha mixed farming enterprise located in the Centre Province of Cameroon. It began as a family business and subsistence farming enterprise in 1980 and developed into a commercial farm twenty years later. Today, the company primarily engages in commercial breeding, rearing and fattening of pigs for production of pork and, on a smaller scale, cattle and poultry farming. Maize and soya are produced as inputs for the pig diet.

Improving WEF's pig productivity

Following Databank investment in December 2012, the primary objective of TAF support was to assist the company with its rapid expansion plans for its pig production. TAF is sponsoring quarterly visits by a pig production farm expert and veterinarian from South Africa, who is working with WEF to improve the performance of the piggery unit. Key metrics include porker sales, number of litters born, weaner mortality rates and average selling weights. Initial progress has been very positive and there have been recorded increases in all metrics since the beginning of project implementation. Porker production is estimated to reach 9,500 porkers per year in 2018, compared to 800 at the time of Databank investment in 2012. Going forward, as part of the TAF support provided, five WEF staff members will spend three weeks at the service provider's commercial pig farm in South Africa in early 2017 to experience a major commercial pig farming operation first hand and further build their own capacity.

To meet WEF's growing input requirements for pig feed, TAF also worked with the company across a number of areas to increase production levels of maize and soya and build the capacity of labourers working on the arable farmland at WEF. In addition, the company also received capacity building support to source and set up a management information system (MIS) to formalise internal procedures. Both projects added some value to company operations, but also encountered some challenges. The MIS system chosen by the service provider has not turned out fit for purpose and the application of herbicide as part of the agronomic assistance resulted in some crop failures. The staff capacity building provided had positive benefits, but upon completion, additional capacity building needs around farm management and procurement were still apparent. An extension to the agronomic technical assistance was agreed in 2013 to further build sustainable farm management capacity. Support is also being provided on special projects for which the current management team does not have capacity. WEF has established a very good relationship with the current service provider sponsored by TAF, who visits the farm every two months, and ultimately the projects will assist towards creating a sustainable roadmap for the arable farming enterprise.





CAMEROON

- > TAF has assisted West End Farms, a mixed farming enterprise, across a range of core business areas including assistance to improve pig productivity, agronomic assistance, staff capacity building, all resulting in better company performance
- > Piloting of an outgrower scheme for local sourcing of maize and soya led to mixed results, but managed to introduce access to finance for maize growers, not previously available in the region, and paved the way for institutional support

TAF is also assisting WEF with the implementation of soil sampling analysis through the funding of an innovative, project-tested soil testing kit 'SoilDoc'. Currently WEF relies on recommendations from fertiliser companies to optimise productivity through the selection of appropriate fertiliser. The objective of the pilot is to test the cost efficiency of the company producing their own samples to inform fertiliser choices. TAF first introduced SoilDoc to **Meridian** in Malawi and this cross-fertilisation between projects has led to SoilDoc's first usage in Cameroon.

Piloting an outgrower scheme for local sourcing of maize and soya

WEF's own arable farm meets their maize and soya production requirements, but the company's commitment to corporate social responsibility led to the development of a smallholder support project. WEF had previously started to participate in a local government program to support smallholder-led agricultural production in the country and was supporting local farmers through agricultural advice and small input loans.

TAF saw the opportunity to complement existing WEF activities and provide additional technical assistance to up to 200 farmers with the overall objective to transition them from subsistence to business farming and ultimately to increase their incomes. Two cooperatives in separate locations were chosen as target beneficiaries for the interventions, focusing on agronomic and business capacity building; access to farm machinery; leadership and governance of farmers' organisations; and

access to financing and inputs. After three seasons the project had mixed results. 160 farmers were reached with agronomic training and assistance of whom 140 demonstrated improved technical skills and capacity to improve productivity. Out of the 78 farmers who received financing, 44 were able to increase their income at an average of US\$1,040. Apart from practical challenges such as unpredictable weather patterns, low rainfall and effective implementation of the 'trainer of trainers' approach, the complex local political environment proved hard to navigate and the project struggled to manage the range of different partners, who had varied expectations and interests, despite the overall project goal to increase farmer's incomes. The two cooperatives chosen had very different characteristics with regards to proximity of their location to WEF, cultural backgrounds, farmer profiles and strengths of institutional set up.

Access to finance was not previously available to local farmers and hence was an innovation for all involved stakeholders. Many farmers were not accustomed to accessing formal credit and the local MFI had not previously been engaged in BOP agri-financing. High targets in terms of numbers of farmers to be

reached, a lack of planning, including clear terms and conditions between partners, as well as poor sensitisation on both sides led to mixed results.

However, a year after the end of the project, WEF is still engaged with one of the two cooperatives in a co-development endeavour. The company is planning to multiply cassava for the farmers to provide an additional income source for them whilst offering the opportunity to grow an alternative feed source for WEF's pig production. Based on the achievements of the first project, the company has also reached out to institutional donors, such as World Bank, to support the cooperative and its developmental ambitions. TAF will support this endeavour through a participatory community assessment, to address land tenure issues, land mapping and supporting the cooperative in finalising a business plan.



CASE STUDY / MOABLAOU

BURKINA FASO

Core operations:
egg production

Production volume:
800 MT p.a.

Number of employees: 50



Established in 1987 and based in Ouagadougou, Moablaou primarily engages in the production, distribution and sale of eggs in the Koubri region in central Burkina Faso. The company has its own production units to produce feed for its 185,000 layers and currently requires 20 MT of animal feed daily. Maize represents 60 percent of this feed composition and is a key source of protein for poultry diet. White maize is more commonly grown in Burkina Faso but has a lower protein content than yellow maize, and if included in the feed formulation for laying hens, results in visibly lighter egg yolks. To correct this colouration, artificial additives have to be added to the poultry diet, which are both costly and alter the egg quality. To avoid this, Moablaou planned to source a reliable supply of homogenous yellow maize from local smallholders to meet its growing production needs.

Managing the avian flu crisis

However, Moablaou's plans had to be put on hold when an avian flu (a particularly deadly strain of bird flu), hit the company in March 2015. Despite Moablaou raising alarm in early March, the Government did not take action until mid-March by which time Moablaou had lost 30 percent of its chicks. The losses increased to 90 percent by the end of the same month. In light of the crisis, TAF, in consultation with Moablaou, identified two immediate technical assistance priorities. Firstly, the development of a recovery plan and secondly, analysis and development of biosecurity measures to mitigate future potential threats.

The recovery plan comprehensively assessed the state of Moablaou's financial position, generated a recovery scenario model and prioritised general accounting, financial and stock management upgrades that were vital for the rescue of the business. Meanwhile, the biosecurity recommendations included low cost immediate interventions, such as improved monitoring of movements in and out of the farm, hygiene systems, foot dips and hand-wash facilities, vehicle disinfection and early warning systems. Thanks in part to these TAF projects and the SME Fund investment in a new production unit, the business made a rapid recovery and revenue is forecast to almost double in 2016 compared to the revenue of US\$2.75m in 2014 pre-crisis. Moablaou has implemented various TA recommendations made to date and according to Dr Dolo, the visiting vet to Moablaou, the company "is currently considered the most secure poultry farm in the region from a biosecurity perspective".

Building on the success from the early interventions, additional TA support is currently being provided to continue implementation of some of the initial recommendations, exploring options to set up a diagnostic laboratory for regular and routine health monitoring of the flocks, and facilitate learning visits to an advanced poultry farm to build and expand the capacity of Moablaou staff.

"In 30 years of being in the business, the commercial relationship with FPK has enabled us to source local maize of good quality for the first time. This is why we want to extend and deepen the relationship."

Abou Simbel Ouattara,
CEO, Moablaou

- > After successful recovery from a flu crisis, Moablaou, the largest producer of table eggs in Burkina Faso, is now considered the most secure poultry farm in the region from a biosecurity perspective.
- > The company is receiving TAF support to scale a private sector led extension model for local supply of yellow maize, a core ingredient for the poultry diet.



Expanding local sourcing of yellow maize through private sector led extension

Following crisis recovery, plans to expand local sourcing of yellow maize have also been revived. In 2015, Moablaou was contacted by Ferme Pedagogique Kourinion (FPK), an educational farm set up by a former GIZ extension officer and trainer who offered to source maize from smallholders on Moablaou's behalf. The suggestion was to do this via an integrated maize project, which FPK had set up in partnership with Saphyto, a local agrodealer. By the end of 2015 FPK has supplied Moablaou with 1,500 MT of yellow maize procured from 600 farmers.

In this example of a private sector led extension model, Saphyto provides seasonal finance to farmers involved through a tailored box of inputs (seeds, pesticides, fertilisers and small equipment). The input box is tailored to cover 1Ha and costs c. US\$150; yielding c. US\$320 worth of maize (i.e. 3 to 4 MT/Ha; c. 25 percent higher than the average smallholder farmer yield in Burkina Faso).

Farmers pay 10 percent as a down payment. For the first season in 2015, Saphyto provided full season finance to farmers involved and FPK took a commission on input and maize sales to pay for the extension services it provided. At harvest time, each farmer, who will have produced an average of 4 to 6 MT (from 1-2 Ha), sells the equivalent of 2 MT via FPK to Moablaou to repay the credit. Farmers can sell or consume the remaining production. The target for 2017 is to increase farmer incomes by 11 percent by raising the current price from 15 to 17 US cents per kg.

Moablaou was very satisfied by the quality of maize sourced from smallholders in 2015 and wished to increase - ideally double - the volumes in 2016. To scale up volumes and increase the number of layers from 185,000 to a targeted 215,000 would require working with more farmers, and hence a greater provision of finance. However, despite the market demand, the existing partners (FPK, Saphyto and the microfinance institution) faced financial and human capacity constraints to engage with a significantly higher number of farmers.

TAF saw an opportunity to add value by supporting the expansion of the outgrower scheme. FPK was selected as the project implementer, based on its demonstrated capability to mobilise and organise farmers and to provide quality extension services. The project began in August 2016, and additional FPK core staff have been hired as well as extension officers. With support of TAF, FPK also designed and implemented a baseline study to capture key performance indicators for participating farmers.

Ambitious plans for the remaining project period until March 2018 are in place. Saphyto and FPK have approached several banks, including Bank of Africa (BOA) in Burkina Faso to finance access to inputs and other costs of the project to mobilise the US\$320,000 of additional finance required to reach the target of 1,200 farmers in 2017. Banks have expressed interest in financing the project on the condition that TAF was providing support too. The project partners are currently exploring potential to provide such support through TAF's 'smart subsidy'.



CASE STUDY / GUANOMAD

MADAGASCAR

Core operations: organic fertiliser

Production volume:
c. 3,000 MT p.a.

Number of employees: 72



Guanomad is a one-of-a-kind company in Madagascar, harvesting bat and bird guano which is rich in nutrients to process and sell as organic fertiliser. The company has a licence to access 150 caves across the country and potentially 1 million MT of guano; to date only c. 50,000 MT has been extracted, which is a fraction of the total. The company's original market was primarily government, but after the 2010 Malagasi coup there was a pressing need to replace institutional buyers with more commercial ones. While the company has the ability to process 6,000 MT per annum, the constraint has been on the demand-side, limiting production to between 2,000 and 3,000 MT.

Developing export strategies

TAF worked with Guanomad between 2014 and 2015 to research the viability of both local and export markets. The company lacked experience in accessing overseas markets but it was clear that the superiority of their organic guano-based fertiliser was valued by more sophisticated commercial farmers on the continent than by local smallholder farmers. The initial logic was to focus on the closest markets, i.e. those in East Africa, a strategy which also complied with the mandate to strengthen food security within Africa. After some in-depth studies, Guanomad received diagnostics on target country markets, such as Kenya and Ethiopia, as well as detailed plans to access buyers via agents and other distribution channels.

While the implementation of the export strategy work yielded some results and new sales in East Africa, in parallel, a number of buyers in the USA, introduced by the Databank Fund Manager, started showing interest in their products. The price per tonne attained in sales to these customers, which commenced in 2015, was twice the domestic price. Furthermore, these buyers prefer to create their own blends and so needed unprocessed guano, which is cheaper and easier for Guanomad to supply. Buyers in Europe and the Caribbean were also offering prices that more than compensated for the higher transportation costs, highlighting a flaw in the early research which had assumed proximity was a key determinant of market viability.

Guanomad has exported 470 MT of product this year to date, which is 50 percent of the company's total sales volume and an increase from 260 MT total exported last year. However, to fully capitalise on the profitable US market, Guanomad recognized the need to 1) develop an effective US market sales and activation strategy, and 2) ensure product quality and consistency given this highly regulated market. In this regard the business, with the assistance of TAF, will be sourcing an HR specialist to develop a recruitment plan for an export director, who will assist with developing the export markets with a primary focus on the US. TAF will subsidise this director's salary on a sliding scale, de-risking the hire for Guanomad, and on the premise that the company will be able to continue remunerating them in full once the position has proved sustainable through returns on new business. This is a novel form of support for the facility and will be tested when the project is implemented in 2017.

Focussing on product quality

The increase in Guanomad's exports has highlighted shortfalls in the company's quality control systems; a number of consignments have been rejected by port authorities for failing phytosanitary tests. TAF identified a specialist firm to introduce a bespoke quality management system (QMS) which will use mobile colour spectrometry technology and assist with development of standard operating procedures to reduce product variance from specification. This innovative infrared scanner will be used to determine the composition of guano even before it is extracted, thus enabling Guanomad to efficiently target their harvesting according to customer specifications as well as tightening quality control at their plant.



MADAGASCAR

- > TAF support has increased Guanomad's export options for its guano-based fertiliser to maximise profits in new markets. The recruitment of an export manager and implementation of a quality management system will ensure sales growth continues.
- > In the domestic market, TAF has facilitated partnerships for Guanomad to pilot a crop inputs box for smallholders. Early results have been very promising with farmers seeing over 100 percent increases in yields. TAF will be facilitating a private sector extension model and market linkages to sustain this model.

Development of the domestic smallholder market

Local Malagasy smallholder farmers stand to gain from the appropriate use of Guanomad's fertiliser products, but the route to this market via small agrodealers was underperforming. TAF developed an Agrodealer Capacity Building Scheme in March 2015. The aim of the project was to increase smallholder fertiliser usage by training agrodealers, and providing them with access to finance to improve their working capital, connecting smallholders to these agrodealers, and increasing Guanomad's capacity to be able to scale up from this first initiative.

Zariro Consulting, the service provider for this work, found that the agrodealers had such limited capacity that there was no potential to achieve significant change in their performance in the project's 18-month window. Instead, efforts were switched to educating smallholders on the usage of inputs to improve their yields. As part of this exercise, CEFFEL, an agricultural research institution, was engaged to provide technical extension training for farmers.

What evolved was a fledgling outgrower scheme; Njara, a local agrodealer and Agrivet, along with Guanomad set up a 'crop input box' which contained all the chemicals needed for one 'are' (1/100 Ha) of land including an optimal mix of Guanomad product and NPK. CEFFEL purchased these boxes and pre-financed them for the farmers. The final touch, and the one that gave the initiative its sustainability, was that CEFFEL contracted farmers to grow seed potatoes, hence providing them with a secure market. This fulfilled CEFFEL's needs as there was a shortage of seed potatoes following a recent disease outbreak.

The results from the pilot have been very encouraging; Njara experienced a near 10-fold increase in input sales to the group of seed potato farmers. Preliminary results indicated that all 32 farmers exceeded the project target of 20 MT/Ha, some reaching up to 40 MT/Ha, a massive increase from the 11 MT/Ha that the farmer typically get for their potato crops.

TAF is planning two more projects phases to exploit this success further. The concept is to create a sustainable private sector extension service, similar to the model developed in Burkina Faso with another Databank portfolio company, Moablaou. CEFFEL are the target of this initiative, building their capacity to generate sufficient income so that they no longer need donor subsidy. The next phase will expand from seed potatoes to maize; with access to market being critical, diversification is important, and WFP are expected to become a potential long term buyer of maize.



CASE STUDY / NORISH

ETHIOPIA

Core operations: diversified food manufacturer specialising in fortified food and animal feed production

Production volume:
8,000 MT p.a.

Number of employees: 70



Norish Business Plc.

Norish Business PLC is a diversified food manufacturer specialising in fortified food and animal feed production. Its factory, established in 2007 and located in the industrial city of Addis Ababa, is one of the largest processors of fortified foods in Ethiopia and one of three manufacturers who are certified by the World Food Program (WFP) for the production of supercereal². In addition to supercereal, Norish produces 10 types of animal feed formulations for sales to local smallholder farmers.

Following investment from Databank in March 2015, the first TAF intervention was focused on putting together a corporate transformation plan, which – amongst other things – explored opportunities for alternative revenue sources by exploring a retail opportunities in the local baby food market. Some of the recommendations made were subsequently implemented, but the company decided that further research was required on the supercereal formulas for the Ethiopian market before pursuing the retail idea. What had become clear from the planning process was that increasing production and wholesales of super cereal, as well as an increased focus on the animal feed division, was a crucial goal for Norish's business growth. Establishing a secure supply of quality maize and soya, the principle raw materials for the products, was therefore a key strategic objective.

Agriculture is the core element of the Ethiopian economy, smallholder farmers produce 95 percent of agricultural outputs³, and maize is one of the primary crops grown. The Government supplies most seeds and fertiliser through farmers unions and cooperatives, but statistics from the World Bank show that Ethiopia's fertiliser consumption is relatively low. Many cooperatives face working capital constraints and access to finance for inputs is limited. Smallholders lack the required asset base (collateral) to apply for loans from commercial financial institutions and banks have little or no interest in engaging in this high-risk market.

Soya is not a commonly grown crop; despite market demand (the country is a net importer of soya), farmers see little market incentive for soya production and instead produce minimal quantities of soybeans, mainly for soil rejuvenation purposes, rotating soybeans with cereal crops. As a result, there are only a few soybean cooperatives and, as for other crops, the cooperatives that do exist face constraints in accessing inputs, fertiliser and finance.

Local sourcing of maize and soya

It was in this context that a TAF smallholder support project with Norish was initiated in 2015, with the objective of setting up an outgrower scheme, facilitating agronomic business and leadership training, as well as access to finance whilst supporting Norish in securing quality supply of its principle raw materials.





- > **Norish, a diversified food manufacturer specialised in fortified food and animal feed production, is receiving TAF support to pilot sourcing of maize and soya from local cooperatives for its food and animal feed production**
- > **The company believes that greater control over the supply chain will enable better quality of produce sourced and lead to a more cost effective production process**

Self Help Africa (SHA), a locally based international development charity experienced in working with smallholder farmers, was selected as the service provider for implementing the project. The focus in the first year was primarily on maize production and implementing a seed multiplication pilot for soya to supply farmers for the subsequent season. Since project inception in March 2016 a range of activities have been undertaken:

- A supply contract agreement between a local cooperative union (comprising 27 cooperatives of which eleven are maize producers) and Norish has been agreed, in which the union has agreed to supply 2,500 MT of maize in the 2016 production year (about 30 percent of Norish's needs) and the company agreed to pay a fair price based on quality and the going market rate;
- 1,500 beneficiary smallholder farmers from eight cooperatives have been selected via a participatory process to receive training on recommended agro-ecological requirements, agronomic practices for maize and soybean production and multiple cropping systems;
- Selected target smallholder farmers received over 14 MT of improved hybrid maize to plant over 700 Ha. And 3 MT of soy pre-base seed were purchased and distributed to 120 farmers for multiplication, covering a total of 30 Ha.

The provision of improved seeds was enabled based on a seed fund 'smart subsidy' project through which TAF finances seeds for two years. Farmers pay a 50 percent down payment at the beginning of the season and the remaining 50 percent was paid upon harvest in December 2016, as per their agreement with their cooperatives.

In addition to seed financing, two other smart subsidies will be launched for the following purposes:

- To enable the procurement of eight threshers to improve processing efficiency, while also building up the capital assets of cooperatives, since the margin/proceeds from the fee for use will be invested in eight additional threshers within a year; and
- To assist the cooperatives/the Union in overcoming working capital constraints by setting up a joint Growth Facility Fund, with financial contributions from the Union, Oromia Cooperative Bank (OCB) and TAF.

In terms of the Growth Facility, discussions with the bank have taken place and the OCB has agreed to lend to the farmers' cooperative union through the project loan guarantee scheme. Amongst other things, the three-year growth fund will enable the Union to buy the harvest directly from its members and prevent side selling.

"The quality I saw in the Baku Union's warehouse earlier this year for maize and soya was better than anything we have previously sourced from local traders. With the increasing focus on aflatoxin in the industry, engagement with the Union gives Norish the opportunity for onsite testing at source. The Union has displayed post-harvest management practices which should decrease the risks related to aflatoxin."

Dawie de Villiers,
COO, *Norish PLC*

The TAF project has been Norish's first venture into direct engagement with smallholder farmers for its core business operations. Establishing relationships and trust has not been easy, but early results are promising. The company is prepared to pay higher prices for high quality raw materials; better quality provides opportunities for cost efficiencies during the production process. If all goes well, the company hopes that in the long term up to 70 percent of its raw material requirements will be sourced directly from farmer cooperatives, with untapped potential for procuring soya in particular.

Finally, to support the growth strategy of the business, future core TAF projects will provide a range of interventions to further formalise and support the animal feed division of the company including:

- A regional market assessment to determine which segments the company should target, and inform the correct product mix;
- A product rationalisation project to develop the best nutritional animal feed products and provide assistance with the setting up of a laboratory for nutrient analysis;
- The development of a marketing and sales strategy; and
- Strengthening of management information systems.

² Supercereal, previously known as Corn Soya Blend+ or CSB+, is a formulated supplementary food product consisting primarily of maize, soya, sugar and vitamins. It is used primarily by food assistance programs to prevent and address nutritional deficiencies

³ "Analysis of smallholder farmer's participation in production and marketing of export potential crops" Geremew Kefyalew Gobena, Addis Ababa University, 2012

CASE STUDY / TOP CRUST

NIGERIA



Core operations:
bread and baked goods

Production volume: 6,500 MT p.a.

Number of employees: 234



Nigeria has a wide range of bread products; popular with consumers from all economic brackets. 80 percent of the South-West Nigerian bread market is supplied by 'cottage bakeries' with rudimentary equipment and baking infrastructure. Tosan Jeminde set up Top Crust in Lagos in 2011 with the ambition of growing a multi-faceted food conglomerate, and the company is already the third largest player in the market, selling high quality packaged bread, produced on semi-automated lines.

PROJECT	DESCRIPTION	STATUS
Distribution Research and Strategy	To increase Top Crust's control of its distribution, countering their reliance on wholesalers, a distribution centre / van and tricycle model was piloted.	Some initial success was seen, but the model requires further adaptation to scale
New Product Line Development	To support the company's diversification strategy, a UK food technologist will be brought in to develop innovative products with locally sourced ingredients such as cassava and plantain.	An expert has been identified and will commence in 2017
Bakery Operations Optimisation	The high inflationary environment has eroded product margins; TAF second expertise to review operations and support changes for an extended period of time.	Commencing 2017
BoP Distribution	A follow-up to the initial distribution project will operationalise the strategy.	Commencing 2017

CASE STUDY / AVISON

SOUTH AFRICA



Core operations:
integrated fertiliser manufacturer

Production volume:
35,000 MT p.a.

Number of employees: 100



Avison is a leading South African integrated fertiliser manufacturer, formed by a management buyout in 2014. The company specialises in 'integrated plant nutrient management', combining organic and inorganic materials, blending for commercial clients. AAF support has enabled it to acquire primary farms and the co-ownership of a web-based precision farming system, Geo-Agro, from which it can build up a farm advisory service.

PROJECT	DESCRIPTION	STATUS
Management information system (MIS) implementation	Recent growth has inevitably generated inefficiencies while merging business units; TAF will support the implementation of a new, best-in-class MIS for the company.	The project is going well – TAF's input de-risks the change process.
Productivity Improvement Program for Smallholders	Avison's fertiliser blends can enhance smallholder soil fertility and increase yields in drought-stricken NW province. TAF will be supporting a smallholder marketing and distribution strategy and pilot.	Commencing 2017
Corporate Strategy	The integration of new business units requires a new strategy for the company, which TAF will facilitate.	Commencing 2017
Consolidated Sales Strategy	An overarching sales strategy will be built to support the corporate vision.	Commencing 2017



