Impact Report 2017

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About AECF

AECF is a development institution funded by a range of bilateral and multilateral partners that provides matched concessionary finance of between USD100,000 and USD 1,500,000 to the private sector to stimulate innovative solutions in the agriculture sector, renewable energy and adaptation to climate change technologies. It seeks to create sustainable and inclusive market systems for the rural poor in ways that lead to increased incomes, better jobs and improved quality of life.

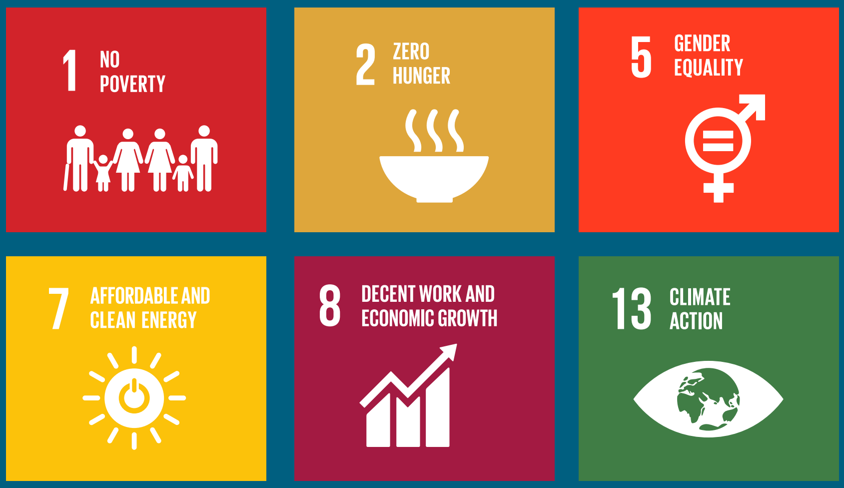
Launched in 2008 under the aegis of the Alliance for a Green Revolution in Africa, AECF commenced operations as an independent institution in May 2017. It is headquartered in Nairobi with regional offices in Dar es Salaam and advanced plans to establish offices in Harare and Abidjan and employs a diverse range of 43 people from ten countries across Africa and beyond.

AECF works in more than 40 value chains in 25 countries and is currently capitalised at US $356million, divided between the two portfolios of agribusiness and renewable energy and adaptation to climate change technologies. In 2017, AECF interventions reached and improved the lives of 16 million people in 3.2 million households. It is supported by contributions from the governments of Australia, Canada, Denmark, The Netherlands, Sweden and the United Kingdom.

Targeting the Sustainable Development Goals

As a development institution, AECF focuses its objectives on the achievement of the UN's 2030 Agenda and its Sustainable Development Goals of eradicating poverty, protecting the planet and ensuring that all people live in peace and prosperity.

AECF's current investments directly contribute to:



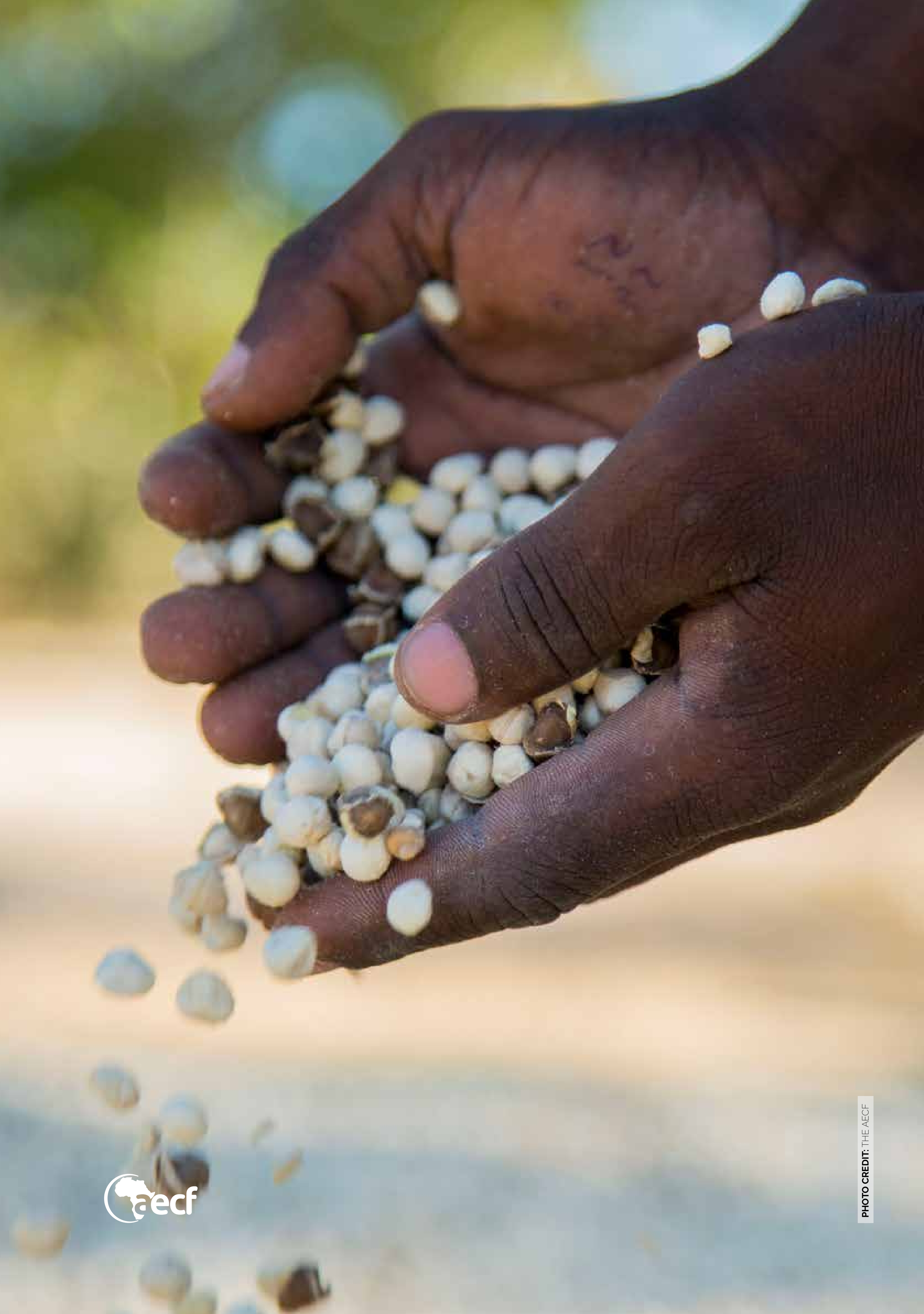


PHOTO CREDIT: THE AECF

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An institution reborn

The AECF at ten enters a new phase in its growth. Its focus is still very much on transforming the lives of the rural poor through agriculture and renewable energy, but with a renewed emphasis on those most difficult to reach groups. These have all too often, whether by reason of gender, age or geographical location, failed to benefit sufficiently from the impact of development.

I became Chairman in 2016 with a mandate to take the AECF to the next level, with a new legal entity, a truly Pan African Board and an extended reach. Paul Greener saw us through this transition as interim CEO - a task he performed with exceptional diligence and skill - before handing over to Daniel Ohonde earlier this year. We thank Paul warmly and welcome Daniel who steps up to the role and brings a wealth of experience and commitment to the task. He leads an expanded, diverse and energetic team at every level of our operations.

The AECF, which started as a project, is now a fully-fledged, free standing entity. We are a unique combination of private and public sector practice and values. The Board is determined that as an institution we should be flexible, fast moving and unbureaucratic, committed to maximizing the utilization and impact of our development partners' money. We believe that sustainable solutions to the challenges of rural development have to be rooted in successful relationships within and between both the private and public sectors, with an understanding of what each can bring to the table This must link both farmers and rural communities with local and regional markets, sources of finance and renewable energy, underpinned by private sector engagement and enabling public policy frameworks. 257 investees assisted, USD 658 million in leveraged private sector funding and USD 1 billion in benefit to the poor for USD 120 million of donor partner funds invested speaks to the success of AECF's method of working. This is a commendable achievement, but we can and must do more and better. Our new strategy, with its special focus on inclusion and support for gender equality, sets out bold targets for doubling impact by 2020. This will see us opening an office in West Africa, strengthening our regional presence in East and Southern Africa and expanding our work in Francophone countries so that we can truly serve the continent.

We are mobilising new funding and working with new partners amongst donor governments, research and multilateral institutions to take our new strategy forward. Alongside our well tried Challenge Fund model we will be open to developing and using new instruments as well as looking to enhance the dissemination of our accumulated knowledge base. We are scaling up operations accordingly, expanding recruitment and embedding new approaches of managing for impact and investing with a gender lens both across both our own business and those of our investees. These are exciting and challenging times for the AECF as indeed they are for this great continent of Africa and the sectors within which we work. Our response is summarised in one word *Vuk'uzenzele* which is best translated as "Let's go for it"!

The Rt. Hon.the Lord Paul Boateng PC DL Nairobi, Kenya

AECF Board

Lord Paul Boateng, AECF Board, Chair

The Rt. Hon the Lord Boateng is a Barrister, former British MP, Cabinet Minister and British High Commissioner to South Africa. Brought up in Ghana, West Africa he is a frequent writer, broadcaster and lecturer on Africa. He founded his own market regulatory advisory company Akyem Law and Advisory, is on the Health Policy Advisory Board of Gilead Sciences and is an advisor to a number of other international companies.

As a member of the House of Lords, he is Vice Chair of the All Party Parliamentary Group on Agriculture and Development. He is also a Trustee of the Planet Earth Institute, Chairs Book Aid International, the English Speaking Union and the International Council of the Duke of Edinburgh's Award.

A Methodist Lay Preacher, married to Janet Lady Boateng, a Social Policy Analyst and Company Director. They have five children and six grandchildren.

Jean Philippe Prosper, AECF Board Member

Jean Philippe Prosper is an Independent Director on the boards of various companies.

Until July 2015, he was Vice President for Global Services at the International Finance Corporation (IFC), the private sector arm of the World Bank Group and previously Vice President for Sub-Saharan Africa, Latin America and the Caribbean where he led IFC's investments and advisory services.

Prior to joining the IFC in 2000, Mr. Prosper worked in investment and development finance as well as an Advisor to the Minister of State of Haiti on Financial, Economic, and Industrial Affairs where he was professor of mathematics, statistics and managerial and corporate finance at the State University of Haiti. He has lived and worked across Africa in the past 20 years. An expert in Fragile and Conflict Affected Situations, Mr. Prosper holds a M.B.A. He is also a civil engineer with a degree in Mathematics and is fluent in Haitian Creole, French, English, Spanish, Portuguese and is proficient in Kiswahili.

Anne-Marie Chidzero, AECF Board Member

Anne-Marie has over 25 years' experience in African financial and private sector development, working in 32 African countries for the World Bank, DFID and other DFIs. She joined Alitheia IDF Managers as a Principal Partner and Co-Founder, to raise a US $100 million Pan-African private equity fund, anchored by the African Development Bank, for growth SMEs focusing on women led business.

As a leader in development finance, as well as AECF she sits on the Boards the Financial Sector Deepening Fund Africa and Untu Microfinance Bank in Zimbabwe. She is also an Africa Advisory Council Member of Women's World Banking, past member of Making Finance Work for Africa (AfDB), and founding member of a Pan African network of Women in Finance, NFNV. Anne-Marie is a Zimbabwean, and holds a BSc Psychology from McGill University, and MA Economics from the University of Toronto.

Professor Guy Poulter, AECF Board Member

Professor Poulter is an elected Fellow of the United Kingdom Institute of Food Science and Technology and a Visiting Professor and Senior Fellow at the Natural Resources Institute, University of Greenwich, where he was formerly the Director. Between 2014 and 2017 he was Director of the AGRINATURA European Economic Interest Group – a pan European body representing European Universities and Research Institutes working in the field of tropical agricultural research, development and education. He is also a Special Adviser to the UK All Party Parliamentary Group for Food and Agriculture for Development

Guy has an extensive track record in agricultural research and development activities for the benefit of developing countries and has particular experience of the issues relating to the interaction of Members States and the European Commission in the field of international agricultural development under the umbrella of the European Union.

Duncan E Onyango, AECF Board Member

Duncan is an accomplished senior executive, building a track record over more than twenty years of consistent achievement in corporate finance, operations and general management with his most recent assignment being Regional Director/CEO – East Africa of a social venture fund and as Group Chief Finance Officer of a US$100M turnover private equity owned rail operator in Kenya and Uganda.

He has served on the boards of numerous major organisations in East Africa and the UK in the agriculture, renewable energy and housing sectors.

Ms Dolika Banda, AECF Board Member

Ms Dolika Banda is a Zambian banking and finance expert with more than 25 years of international banking and financial management experience. After a long career with IFC culminating in the Director of Financial Markets, she worked as regional director for Africa at the CDC and, since 2016 she has been CEO of the African Risk Capacity Insurance Company Limited (ARC Ltd), Africa's first catastrophe risk pool.

Ms Banda has also held senior corporate and merchant banking positions at Barclays and Citibank in Zambia and currently sits as a non-executive director on a number of boards.

Kola Masha, AECF Board Member

Kola currently runs Babban Gola, an innovative social enterprise in northern Nigeria working with thousands of smalholder rice and maize farmers. He was previously managing Director and CEO of a subsidiary of Notore Group, a leading agricultural conglomerate.

With a MBA from Harvard and Masters in mechanical Engineering from MIT, he brings experience in management, corporate finance and venture capital from working across four continents, as well as public sector experience advising the Nigerian Minister of Agriculture.

Building on a decade of investment in Africa's Rural Communities.

Daniel Ohonde, CEO

2017 marked a period of intense renewal and ambitious growth at AECF. Our 2018-2020 strategy re-affirms our mission to positively impact the lives of rural and marginalized communities in Africa by unlocking the power and potential of the private sector. With many of the successful projects in our portfolio coming to scale, AECF's investees increased their impact in 2017 to the highest we have yet achieved, touching the lives of 3.2 million households, generating a net increase in incomes totalling USD 300 million – a 30% increase on 2016. This takes the cumulative benefit generated by AECF's funds past the USD 1 billion mark since inception. More importantly, it illustrates just how effective the private sector can be in delivering sustained benefits at scale for low income households right across the continent. AECF is convinced that promoting gender equality will enhance both economic growth and broader development outcomes through improved productivity and its multiplier effects within the household. AECF has made a commitment to address the barriers that restrict access to finance and participation in the productive economy and become a lead practitioner of gender lens investing in Africa. We have developed a comprehensive strategy to achieve this and launched a dedicated flagship program to invest in women that will become a focus of the AECF in the years to come.

The past year has seen our portfolio in renewable energy coming to scale especially in household solar. From an initial base in East Africa, AECF is rolling out its programs to become an Africa-wide leader in financing the delivery of renewable energy solutions to the rural poor. A powerful and gratifying endorsement of our approach was a USD 61 million commitment from Sida in late 2017 to scale up efforts to provide clean energy to households in seven African countries. In agribusiness, our support for more than 50 outgrower schemes is generating transformative change amongst poor households whilst key traditional sectors such as enhancing the availability of improved seed continue to drive our reach. Innovative ideas in adaptive agriculture, information and data are starting to show great potential to revolutionise both marginal and mainstream smallholder farming. Look out for further funding commitments and competition launches right across Africa in both the renewable energy and agribusiness sectors during 2018.

Our Post Conflict Window completed its penultimate year strongly despite the punishing drought in Somaliland, violence in DRC and South Sudan and the political uncertainties in Sierra Leone. We plan to bring our knowledge about working in difficult places to the humanitarian space, including engaging with the IFC and other partners to scope potential private sector solutions for refugee situations. Political change in Zimbabwe, one of our focus countries since 2009, will hopefully lead to new donor support and allow us to build on our numerous successes there. We invite you to enjoy this summary of our achievements, gain insights into the lessons we have learned and walk tall with AECF.

Patience is a key feature of AECF's investment approach. Transforming market systems to generate the improved welfare that we seek as a return on our capital takes time. Models must be defined and tested, market rules and attitudes adjusted and successful ideas replicated and scaled. After ten years, many of our investments are now delivering substantial benefits for Africa's rural poor. We outline below some of our key successes in 2017 as well as highlights from our agribusiness and renewable energy operations:

2017-Reaching a billion dollars of benefit

2017 saw a continuing strong performance from AECF's portfolio with a 30% increase over 2016 in the net development impact for poor households from increased incomes and wages to USD 354 million. Scaling key input supplies, consumer products and information projects increased our reach to 3.2 million households across 20 operational countries, creating a 20% increase on 2016. Our investees have created a net 10,200 additional direct jobs since 2009 and paid USD 54 million in wages in 2017. From a total of 257 investees contracted since 2008, 149 were under active management in 2017 with 101 generating impact. A further ten were in the process of contracting. For the first time, the total benefit generated since AECF's inception has exceeded USD 1 billion, representing a return on funds invested of ten to one. As projects mature, large investments from early programmes have started to reach scale, innovations have broken through to the market and proven approaches have been replicated. Average benefit, at USD 94, represents an increase from USD 88 in 2016 and is in line with our long-term target of USD 100 per household. We did not achieve these accomplishments on our own. The real strength behind AECF is the use of our partner's funds to leverage other sources of private capital to the development agenda and our investees have generated USD 658 million in matching funds in support of the USD 120 million disbursed by AECF to date.

AECF's agribusiness investments generated USD 250 million in improved incomes in 2017. Annual growth has slowed slightly to 7% since 2016 from 52% the previous year, due in part to projects graduating from the portfolio but also because of the slowdown in new agribusiness funding from our partners in recent years. However, newer innovative businesses, particularly in information and data, have tremendous potential to transform smallholder agriculture and reach a larger number of farmers in the coming years. The seed sector continues to provide strong development returns and will remain a key part of AECF's business with new funding set to be launched in 2018. Although most households (1.75m) are provided with improved quality inputs, the average agribusiness benefit of USD 136 per household includes a higher and potentially transformative impact for the 100,000 households working as producers.

The headline performance of the renewable energy and adaptation to climate change technologies portfolio is again strong, with reach increasing by 40% to 1.3 million households and the net benefit from USD 40 million to USD 48 million despite many parts of the sector remaining in development stages. The household level financial benefits for renewable energy access at USD 36 on average are not high, they do not change to largely because they do not include significant qualitative benefits from light and reduced household pollution. Capturing these will be a key objective for the industry as a whole in future.

With 90% of the reported benefit in renewable energy recorded from household solar, our partners doubled down on this success with significant investment funds flowing into AECF in 2017 to expand across the continent. Beyond household solar, AECF has supported investment across the renewable energy space in clean cooking, biogas, mini and micro grids. In many countries, before these technologies really take off and make their expected contribution to the benefit of poor people, business models still need revision, conditional legislation addressed and markets enabled. Although climate adaptation technology projects are at an early stage, they are gaining traction especially in post-harvest technologies where 170,000 households adopted innovative hermetically sealed storage bags.

Wages

USD 54M

US $354M
Development Impact
in 2017

USD 300M

Improved
Incomes

Improving the lives of
3.2 million Households

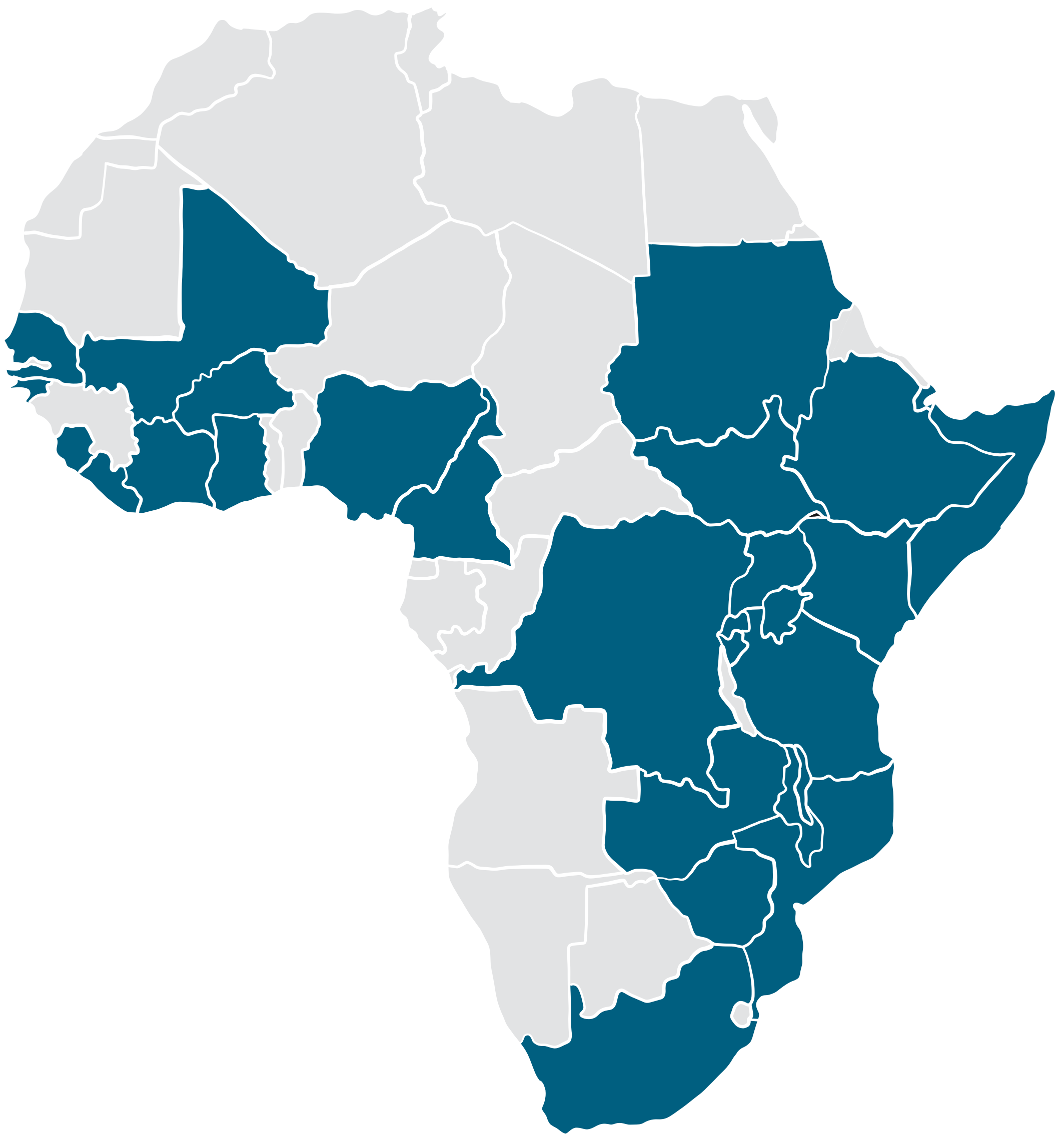
Since 2008, AECF

Generated
USD 1 BILLION
Development Impact

&

Raised
USD 658M
Matching Funds

Where we work



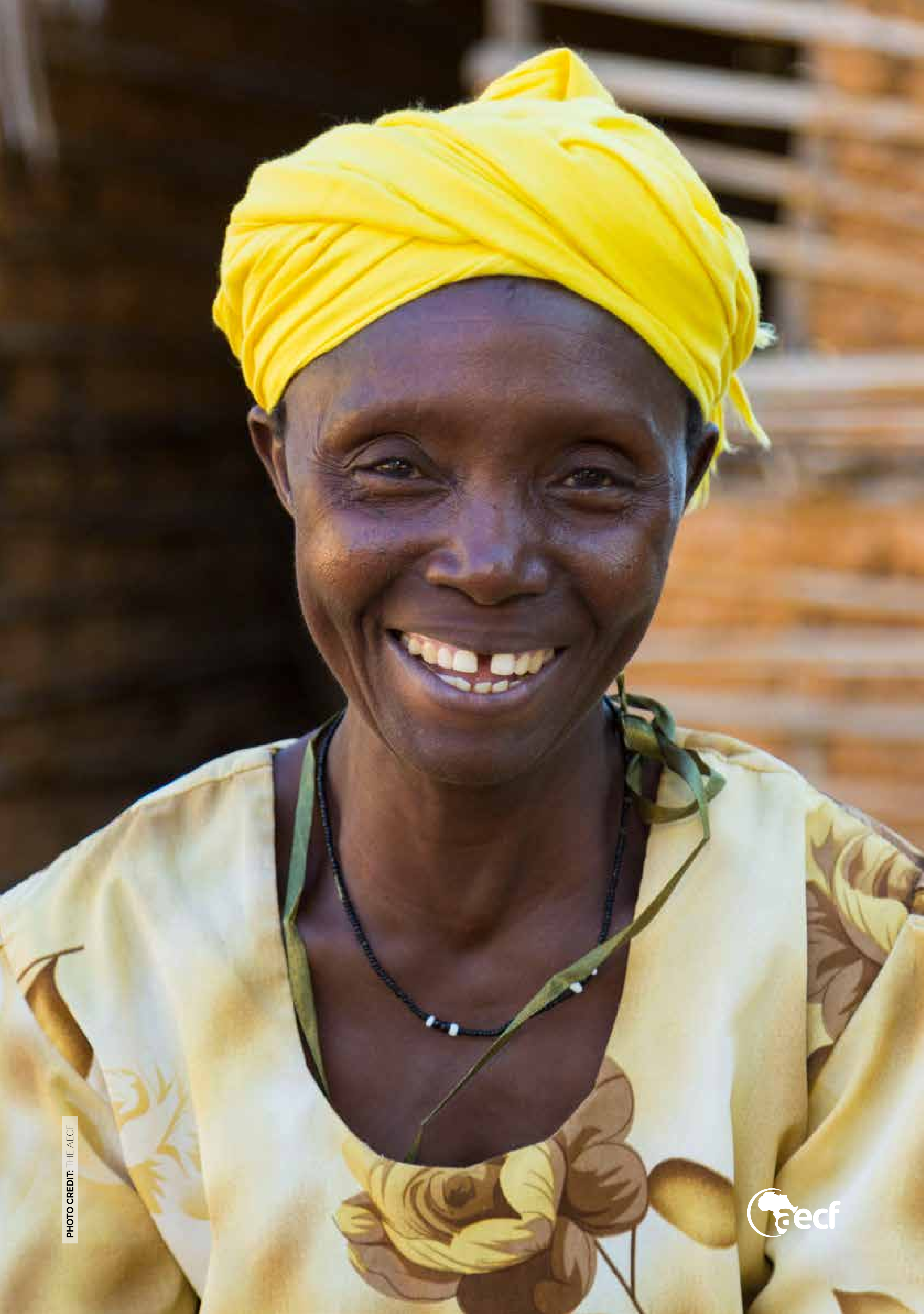


PHOTO CREDIT: THE AECF

Supporting the private sector to drive innovation in agribusiness

Sub-Saharan Africa's agricultural production is dominated by smallholder farmers generating around 25% of the region's GDP and 60% of employment and producing up to 90% of food in some countries. With an increasingly urban and rising populations generally, food imports reached USD 40 billion in 2015, of which USD 30 billion was sourced from outside the region. Despite having 60% of the remaining unused arable land on the planet, the demand for available land is increasing and prices rising, crowding out marginal agriculture especially of low yielding staples. Although there has been an overall reduction in the proportion of people living in poverty, the absolute number is increasing and 153 million people suffered severe food insecurity in the period 2014-2015.

Africa needs to locally produce and process more food to feed itself. AECF believes that funding the private sector to develop innovative solutions plays a crucial role in addressing issues of rural poverty and employment as well as driving cultural change to create more inclusive societies.

Unlocking the power of the private sector to positively impact the lives of the rural and marginalized communities in Africa is what AECF is all about. We provide catalytic funding for businesses that bring financial and development returns for low income-earning people that would not have otherwise been possible. Our success comes from seeking the investment entry point that has the highest potential of crowding in (and not crowding out) other investors and enablers, to scale the investments and resulting impact throughout the value chain.

AECF occupies a unique space in the financing of inclusive agriculture for the private sector, with small, grant-based ticket sizes, a portfolio at scale and a patient approach to providing capital. We also have both depth and breadth in the portfolio: for example, more than 50 outgrower projects and almost 30 investments in seed and propagating materials complement our experience with 40 agriculture value chains. Our operations cover fragile states and post-conflict environments; tropics, highland, arid and semi-arid lands; cash and food crops; as well as projects developing truly innovative ideas and scaling proven winners. We work at country, continent and thematic levels, targeting specific issues such as gender or post conflict environments. From an initial focus on bringing smallholders into value chains dominated by large agro-processors, we work increasingly with smaller and more local enterprises and have an average contract value in agriculture of USD 661,000.

This part of the portfolio impacts on people in two ways – as consumers of better inputs and as producers for processors and marketing companies – that offer either incremental improvements in income or truly transformative opportunities to move out of poverty. In 2017, the average benefit for consumers was USD 130 and that of producers USD 180, with an overall average benefit per household of USD 136.

After eight years of building one of the most comprehensive agribusiness investment portfolios on the continent, AECF spent much of 2017 developing new initiatives that take us into a more inclusive direction that increases our focus on impact. In 2018, we shall launch new programmes for scaling access to quality seed that builds on our existing experience of working with propagating material; and inclusive agriculture which represents the kind of business model that we want to promote in the future.

Quality inputs for higher yields, better incomes and enhanced resilience

The foundation of improved smallholder production lies in better access to quality inputs. AECF has driven innovation and scaling by funding 26 companies that provide a wide range of improved seed and propagating material ranging from innovative crops such as patchouli and moringa to new technologies of tissue culture and various mechanisms to get seed value chains working for smallholders. We have worked principally with medium-sized seed companies to commercialise seed specific to smallholder markets, bring improved seed into new geographical areas and develop new packages of inputs along with financing systems appropriate to small farmers.

AECF has provided significant funds to scale reach, but it is also important to remain true to our role in driving innovation. As the sector evolves beyond maize staples, our focus is on climate appropriate pulses, fortified staples, soil inoculants and fine-tuning how to reach smallholders. Our future challenges include how we and our investees gain a better understanding about how farmers benefit at the household level and where a value chain perspective, post-harvest technologies and near field processing can leverage yields and create transformative income improvements.

Technology innovations tap into market demand for data and information

The agriculture sector has changed significantly since AECF began in 2008. We continue to evolve our funding as the demands of the market change and new innovative new ideas appear. The single most significant systemic change in the past ten years is the technological revolution in communication. New infrastructure literally opens the world to people previously reliant on irregular, expensive and influenced information. It enables targeted, timely and appropriate information to be delivered to individuals based on their real world situation and also, crucially, connects them to a formal financial infrastructure. Farmers become active market system operators, choosing where to buy and sell, rather than being bound to a single company.

Many of these models are in their early stages, with numerous innovative solutions being tested. For remote information dissemination, AECF has invested in printed magazines, television shows, SMS distribution services and call centres, some of which, such as the edutainment show Shamba Shape Up with a reach of almost half a million households in three countries, are game-changers in getting information to farmers. Data is also crucial in linking farmers to markets – AECF funds farmer management systems that increasingly enable companies to understand their smallholders, virtual market-making software to link producers and consumers to information systems that foster the accurate measurement of delivered product. All these efforts generate small, but crucial improvements in income.

The benefit from these systems is tremendous both in terms of improving incomes for farmers as well as building sustainable value chains. The cost of data collection has reduced dramatically with the introduction of mobile technology, meaning the value chain can be more connected than ever before. Consumers of coffee in Europe can geolocate the farmer who grew the coffee beans and see how they were grown. More importantly, processors in value chains get to know the smallholder producer as an individual, understand how and when producers require inputs, what they expect to produce, when they need to sell and how they should be paid. They are able to direct training to the person actually growing the crop (and pay her directly) rather than the person delivering it to the factory.

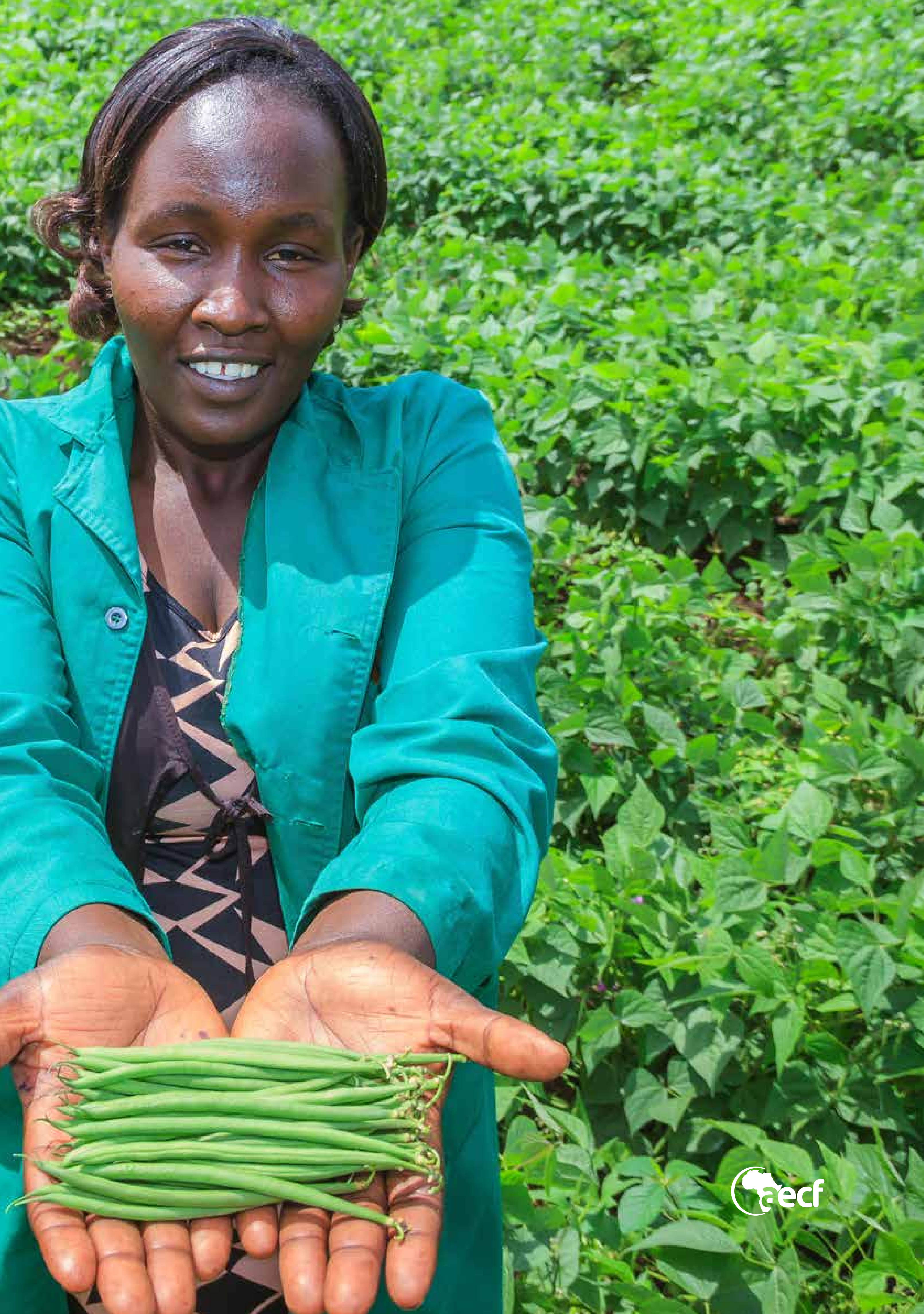
AECF has mobilised almost USD 1 billion in private and public funding to test and scale novel agribusiness models in the past ten years, but this is a fraction of what is required. Our new organisational structure will facilitate the pan African and global collaboration needed to build technical knowledge and leverage our experience to deliver agricultural market system change across the continent in a cost effective way.

PHOTO CREDIT: THE AECF

Unlocking the power of the private sector to positively impact smallholder farmers

"Here we were, with potential orders of up to 570 containers of horticultural product for export to one of the biggest distributors in Europe, and we were stuck with how we would deliver on it in a sustainable manner. Two major factors at play were the financing and the supply of the fruits and vegetables. Our first run-to rescue were the commercial banks although they were quick to shy away from such an investment. They said it was too risky. The farmers who would have supplied the raw material, were weary of the fluctuating market characterized by unreliable off-takers who either did not pay them on time or were not committed to a price range that they could use to plan for investments in inputs for upcoming seasons. So none of us was ready to seize the export opportunity." Rosemary Muthomi – CEO, Mount Kenya Gardens.

With Mount Kenya Gardens, AECF was attracted by the potential impact on smallholder farmers and opted to break the investment paralysis by providing USD 900,000 in grants and loans to expand their out-grower/supplier network while also strengthening the farmers' confidence in the market, a critical element for their own onward investments and growth. The company then invested an additional USD 1,180,000 and we supported them to raise a further USD 2 million through our matchmaking service, AECF Connect. Amongst other fruit and vegetables sold locally, Mount Kenya Gardens bought 2,000 tonnes of French Beans from smallholders in 2017, sending 150 containers of canned product to Europe. In 2017, 11,000 farmers benefitted from this opportunity, earning an average of USD 346 in additional income. Production is targeted to triple in 2018 as the enterprise scales.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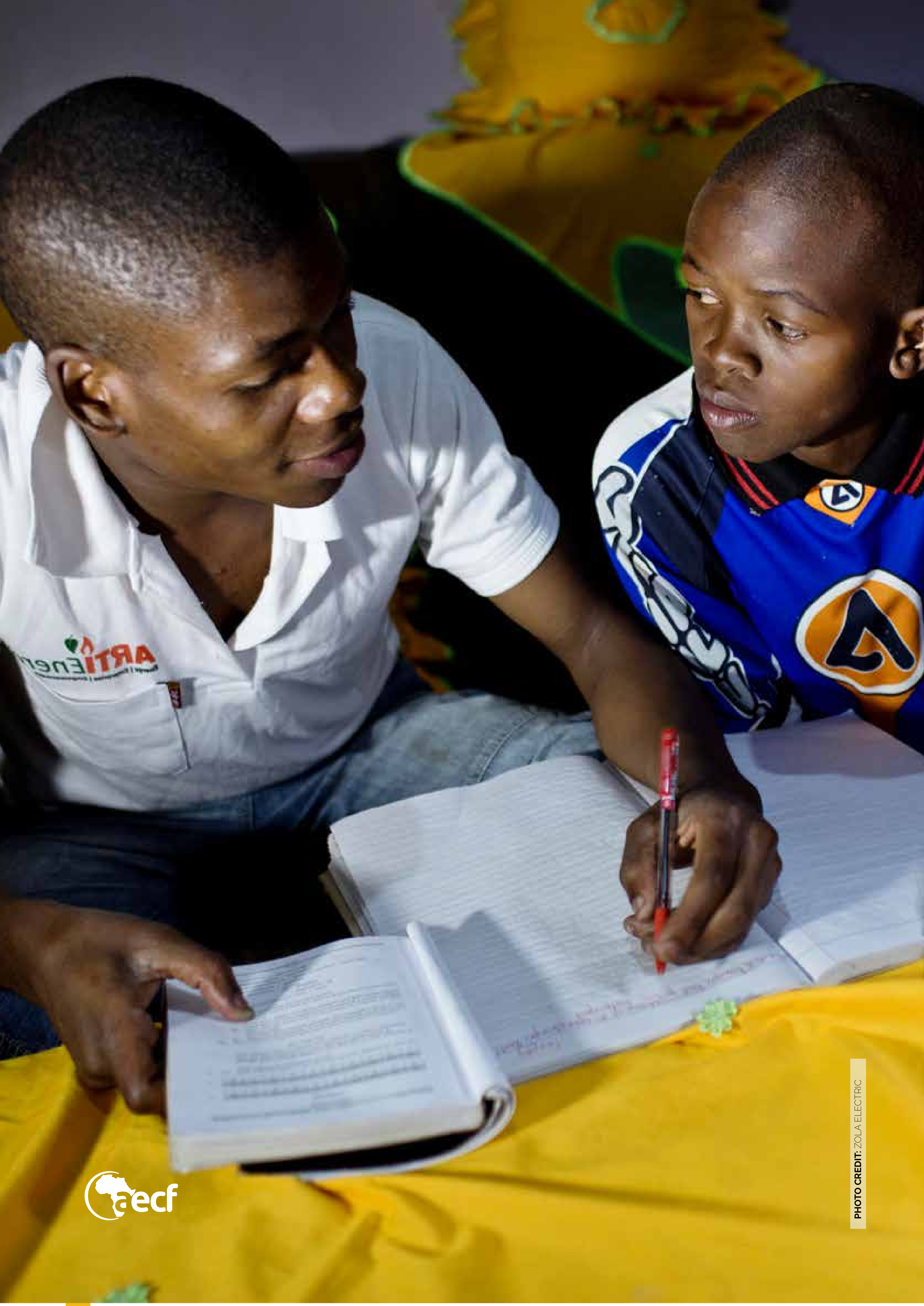


PHOTO CREDIT: ZOLA ELECTRIC

AECF at the Centre of Powering Africa

Sub - Saharan Africa remains the poorest region in the world in terms of per capita GDP and human development indicators. Access to energy is the critical difference between the subsistence, drudgery- filled existence of 7 out of 10 people in the continent who rely on firewood, charcoal and kerosene for energy and a low-carbon economy that unlocks opportunities for rural and marginalized people. Basic electricity charges mobile phones, provides light and powers radios. Productive power solutions drive milling machines, solar pumps and refrigerators to move the rural economy beyond subsistence. Clean cooking improves resource efficiency and frees up time for women since they no longer need to collect firewood nor cook on inefficient stoves. Long-term health implications associated with burning charcoal are mitigated and deforestation rates are reduced. Communities and households benefit from better health, education and nutrition.

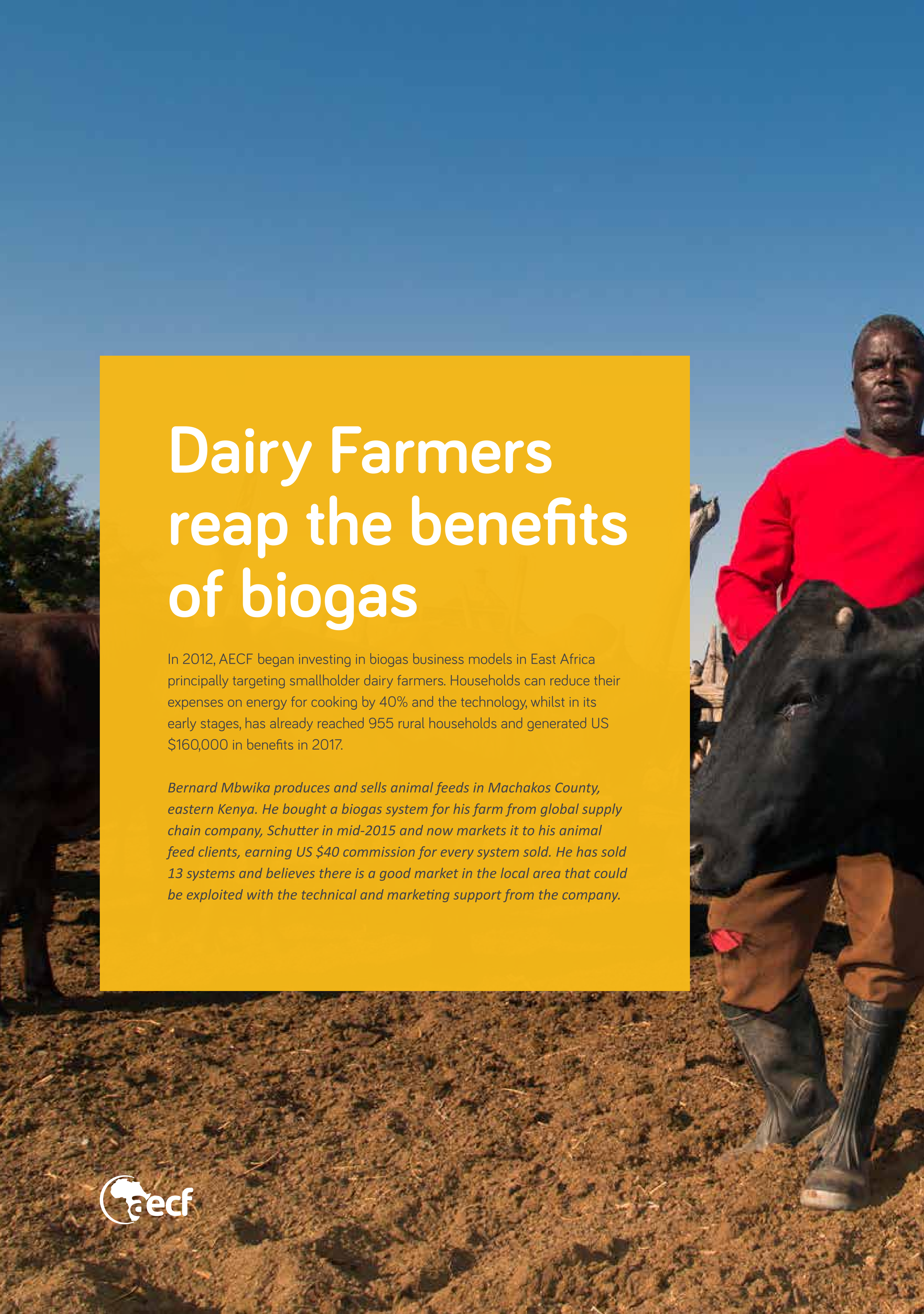
With grid access decades away in much of rural Africa and fossil fuel systems not only expensive but also polluting, local and household level off-grid renewable energy solutions are key to meeting the social development goals on access to energy. However, only a tiny proportion of government expenditure on energy access flows to the creation of decentralized solutions. Commercial enterprise therefore plays an important role in designing and funding sustainable energy solutions for the 1 billion people worldwide who are currently living without electricity and 3 billion living without clean cooking. However, this is unlikely to be profitable in the near term, especially for those working to reach the rural poor.

AECF supports the private sector in bringing renewable energy technologies to Africa's rural communities through its Renewable Energy and Climate Adaptation Technology (REACT) series of investment windows. External funding de-risks innovation and enables companies to test models and expand into markets that they otherwise could not reach, speeding up sector development, driving market system change and most importantly bringing energy to marginal rural communities. Our investments accelerate universal energy access by taking gender-centric, technology-neutral, least-cost approaches that drive financial inclusion for the majority who remain unreached and unbanked.

Household Solar provides a break-through solution

Early AECF investments played a transformational role in the development of market-based approaches for basic access to electricity in East Africa by catalyzing investments for PAYGO household solar systems. These innovative business models rapidly rolled out basic electricity products to rural off-grid and under-grid communities. Over 1 million households have since been connected and hundreds of millions of dollars leveraged in equity, debt and grant funding.

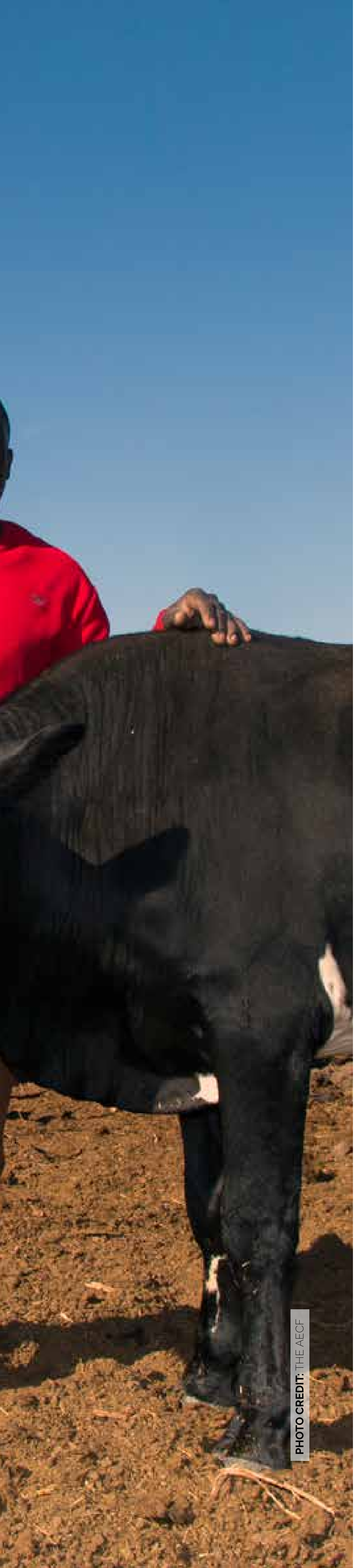
In 2017 AECF began scaling this success across the continent with the launch of the Household Solar (HS) Initiative. Ten companies have been funded from competitions held in Sierra Leone, Zimbabwe, Zambia and Malawi with business models ranging from distribution to microfinance to wholesale of solar home systems. 2018 will see the mobilization of significant additional investments as our partners support our vision of rolling out household solar across the continent.



Dairy Farmers reap the benefits of biogas

In 2012, AECF began investing in biogas business models in East Africa principally targeting smallholder dairy farmers. Households can reduce their expenses on energy for cooking by 40% and the technology, whilst in its early stages, has already reached 955 rural households and generated US $160,000 in benefits in 2017.

Bernard Mbwika produces and sells animal feeds in Machakos County, eastern Kenya. He bought a biogas system for his farm from global supply chain company, Schutter in mid-2015 and now markets it to his animal feed clients, earning US $40 commission for every system sold. He has sold 13 systems and believes there is a good market in the local area that could be exploited with the technical and marketing support from the company.



Government policies must change for mini and micro-grids to flourish

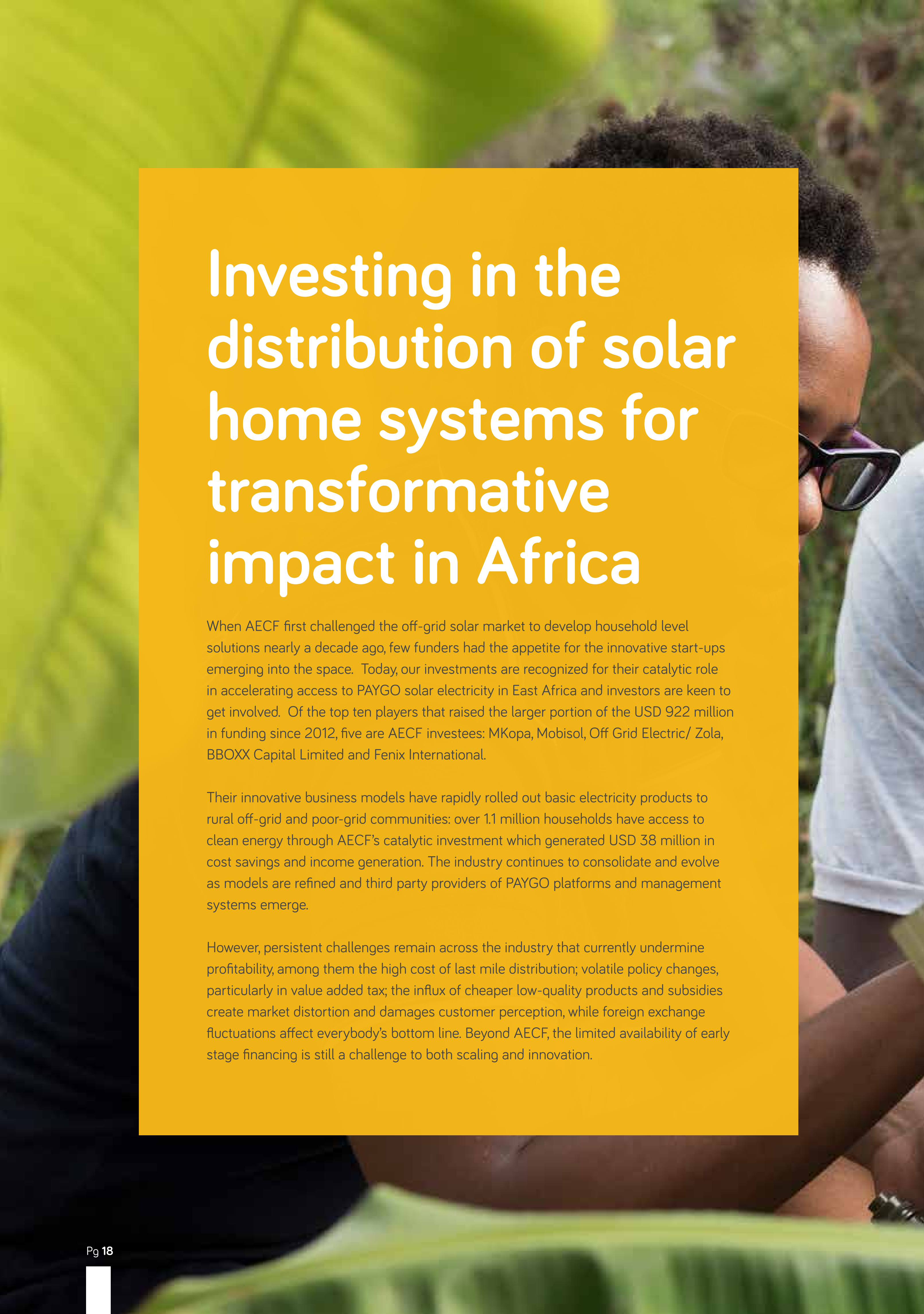
The private sector's key role in the delivery of productive quality power through mini and micro-grids is overshadowed by an unclear policy environment. Since they require higher prices than grid electricity to break-even, they often face regulators that are unwilling to approve tariffs for poor rural people that are higher than the grid-supplied areas.

Politically, governments find it difficult to accept the reality that extending the grid will take many more years yet they do not include mini-grids in rural electrification programmes. AECF's seven mini and micro-grid investments reached 1,744 households in 2017, illustrating the challenges of recruiting customers once systems have been installed.

Cleaner cooking requires both fuels and delivery technologies to thrive

AECF supports ten investments with varying levels of success among companies looking to develop clean cooking solutions. Finding the right market delivery model has been a challenge as the businesses rely on sophisticated supply and distribution networks not just for producing the fuels but also for the new generation of cooking technologies.

Previous market interventions through subsidies and the distribution of free stoves created distortions and made it difficult for commercially based operations to gain traction. In 2017, our investees reached 17,158 households and generated USD 1 million in benefits – but this does not include the substantial qualitative benefits to health, education and the reduction of drudgery. However, the industry is developing metrics to accurately capture these details.



Investing in the distribution of solar home systems for transformative impact in Africa

When AECF first challenged the off-grid solar market to develop household level solutions nearly a decade ago, few funders had the appetite for the innovative start-ups emerging into the space. Today, our investments are recognized for their catalytic role in accelerating access to PAYGO solar electricity in East Africa and investors are keen to get involved. Of the top ten players that raised the larger portion of the USD 922 million in funding since 2012, five are AECF investees: MKopa, Mobisol, Off Grid Electric/ Zola, BBOXX Capital Limited and Fenix International.

Their innovative business models have rapidly rolled out basic electricity products to rural off-grid and poor-grid communities: over 1.1 million households have access to clean energy through AECF's catalytic investment which generated USD 38 million in cost savings and income generation. The industry continues to consolidate and evolve as models are refined and third party providers of PAYGO platforms and management systems emerge.

However, persistent challenges remain across the industry that currently undermine profitability, among them the high cost of last mile distribution; volatile policy changes, particularly in value added tax; the influx of cheaper low-quality products and subsidies create market distortion and damages customer perception, while foreign exchange fluctuations affect everybody's bottom line. Beyond AECF, the limited availability of early stage financing is still a challenge to both scaling and innovation.

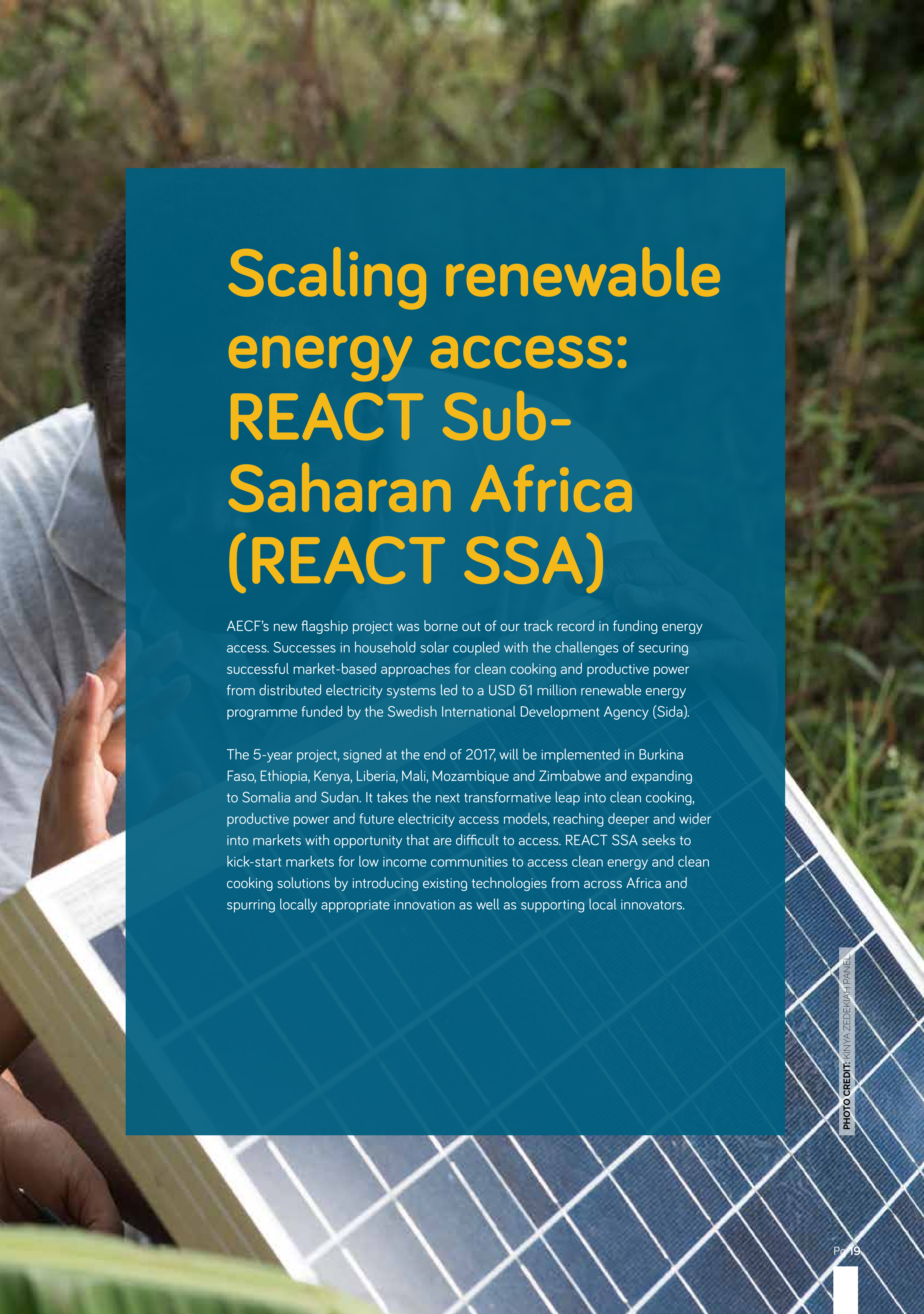


PHOTO CREDIT: KINYA ZEDEKIAH PANEL

Scaling renewable energy access: REACT Sub-Saharan Africa (REACT SSA)

AECF's new flagship project was borne out of our track record in funding energy access. Successes in household solar coupled with the challenges of securing successful market-based approaches for clean cooking and productive power from distributed electricity systems led to a USD 61 million renewable energy programme funded by the Swedish International Development Agency (Sida).

The 5-year project, signed at the end of 2017, will be implemented in Burkina Faso, Ethiopia, Kenya, Liberia, Mali, Mozambique and Zimbabwe and expanding to Somalia and Sudan. It takes the next transformative leap into clean cooking, productive power and future electricity access models, reaching deeper and wider into markets with opportunity that are difficult to access. REACT SSA seeks to kick-start markets for low income communities to access clean energy and clean cooking solutions by introducing existing technologies from across Africa and spurring locally appropriate innovation as well as supporting local innovators.

Following a two-year transition period, AECF was re-launched in May 2017 as a stand-alone development institution with a dedicated board, new management team and staff, strengthened capacity and a refreshed brand. Although we shall still provide financing to high risk innovative companies, below we detail how our work is evolving to reach our objectives of market system change and maximised benefits for the rural poor:

From Fund Manager to Development Institution

AECF's re-launch went further than the relocation to a new office and the introduction of a new management team. It was the end of a process that saw the creation of an entirely new institution with a completely different ethos – from a Fund Manager that allocated and managed donor capital to a Development Institution seeking out like-minded partners to solve the intractable issues that hold back hundreds of millions of people in rural Africa. From ad hoc window based funding that is reactive to the demands of our donors to a permanent, knowledge-based organisation developing multi-partner financed, long term, flexible programmes that respond to the changing needs of companies working with low income earners.

However, we are not starting over from the beginning. The essence of AECF lies in the past ten years with 250 partners, a billion dollars' worth of benefit delivered to the rural poor and the experience gathered from working together with millions of individual farmers across 40 value chains in 25 countries with some of the most enlightened entrepreneurs on the continent.

The people that we work for – the rural poor – have always been at the heart of AECF, however, how we work with the private sector to meet expectations is changing. From reporting the impact that our investees create, we are now managing them to maximise the impact that they can achieve. This means mainstreaming the understanding and achievement of results throughout the organisation and a closer, more collaborative relationship with our investees. We have established an inclusive business model that will require much more from our investees, but also broaden and deepen the impact they deliver to our end beneficiaries.

New models are being developed to work with smaller companies so that we can cost effectively service the sub-USD 100K early stage market for finance. New products will be developed to bridge financing gaps above USD 1.5m as investee companies scale. We cannot achieve these changes on our own, and have been busy developing new partnerships to fundraise, research and provide inclusive services for our investees to implement our comprehensive 2018-2020 strategy.

Communicating our vision of equality and impact to our existing portfolio as well as new investees and the wider ecosystem is a key objective in 2018. Building the systems and tools to implement the vision will take a little longer, but by the end of 2020 we will have delivered a further 1 billion dollars of benefit to the rural poor, leveraged a billion dollars of matching funds, created 20,000 jobs and improved the lives of 25 million people annually.

What does managing for impact mean?

Impact investors, including AECF, generally report the impact they have generated. However, managing for impact focuses the business on the individual living on a low income in a rural and marginal community in sub-Saharan Africa. It is about creating metrics that capture changes in income and welfare for that person and embedding them within the business processes of both AECF and its investees. It is about understanding how companies generate benefit and helping them to do more as well as strengthening concepts of inclusion, such as gender equality and youth employment, within their businesses. It is about changing management cultures so that beyond making money, as much effort is put into generating and achieving impact. Within AECF we are mainstreaming our operational processes so that everyone is responsible for achieving impact – it is not just a measurement function, rather it is a management function.

PHOTO CREDIT: THE AECF

Partnerships for prosperity

AECF exists to improve the lives of the rural poor, by either increasing net incomes or enabling access to goods and services that generate qualitative improvements in life. However, none of these are achieved directly. AECF neither sells solar home systems or grows improved maize seed, nor develops farmer management systems; – rather, it creates and manages partnerships. Our partners on one side are donors providing funds that we distribute in the form of concessional capital to companies on the other side that deliver impact for low income rural people. The key to our success is to ensure a balance between the two competing objectives of the financial return sought by entrepreneurs on the one hand and the development impact sought by our financing partners on the other hand.

AECF has worked with more than 40 value chains that impact positively on the rural poor. We have created an understanding of a wide range of business models and how they operate in the real world, a transparent results measurement mechanism and crucially, we have engendered a collaborative management relationship with our investees. With an understanding of how impact is achieved in the areas where we work, our objective from 2018 is to build on the experience of the past decade to maximise the impact that we generate for rural and marginalised communities.

Although AECF has been in transition for the past two years, our partners have remained engaged with us. 2017 saw our largest contribution of new funds in a single year, with almost USD 60 million provided from the United Kingdom and Sweden that brought our total capitalisation to over USD 350 million. The United Kingdom and Sweden remain our largest funding partners, but four other key bilateral donors – Australia, Canada, The Netherlands and Denmark - provide important financial contributions as well as guidance in implementing investments and delivering impact.

The focus of much of our new funding is on renewable energy, enabling us to bring our experiences and successes in East Africa to bear on the rest of the continent. Collaboration between our partners in funding a common agenda is especially rewarding and enables us to take an increasingly programmatic approach to the design and management of our interventions. Our vision is clear – the development of targeted investment programmes at scale and the recruitment of multiple funding partners to finance them over time.

Agribusiness has long been at the forefront of development finance working towards addressing basic issues of food production and income generation. Our partnerships are evolving in this area as well, to focus on access to nutritious foods, equitable distribution of benefit between people within households and enabling farmers to adapt to the effects of climate change.

AECF is continually engaged in a comprehensive resource mobilisation effort both with its traditional supporters, but increasingly with new partners such as multilateral agencies and private foundations that share our wider goals. Our new institutional structure not only allows us to be more flexible in the products that we offer to our investees, but also to work with a wider range of potential funding partners. Exciting new collaborations have emerged with the International Finance Corporation (IFC) at Kakuma Refugee Camp in Kenya and with Sygenta Foundation together with the Alliance for a Green Revolution in Africa (AGRA) on scaling seed production for smallholder farmers.

Creating markets that work for the Rural Communities

At AECF we believe that the private sector is the most effective and sustainable route out of poverty for rural and marginalised communities in sub Saharan Africa. Local entrepreneurs understand the needs of local markets and cost the risk of making those markets work far better than distant policy makers. However, where the markets cannot provide external investment, government must step in. Yet government – including donors – remain wary when it comes to providing direct financial support to private businesses. Multilateral donors prefer sovereign debt, which ends up being distributed by borrowing governments to commercial banks that often do not understand the patient capital needs of agribusiness and the high-risk profile of innovative industries such as renewable energy. Bilateral donors often concentrate on the provision of an enabling environment by government institutions, non-commercial intermediaries and regulatory reform, with the hope that this will stimulate the private sector. Nevertheless, everyone is worried about market distortion, fairness and corruption.

Like all initiatives funded with public money, AECF is focused on ensuring additionality – achieving benefits that would not otherwise have been achieved without the investment – and it examines this at each stage in its project selection process. We are paying private companies to do something that they otherwise would not afford to do, that will generate a public gain and instigate a sustained change in how that market system works so that the company will continue to provide that public good after our funding ends.

How this is interpreted has changed over time, as we and our partners learn what works. In 2008 when the AECF was created, the vision was to encourage large agro-processors to develop production systems to absorb smallholder farmers into their value chains. Development additionality was generally high; input additionality less so. Now, we are more likely to work with smaller companies providing specific market system tools into the sector, working in highly marginal areas or innovating business models or products. Both development and input additionality are now high and the potential for market distortion reduced.

Companies are by their nature not altruistic - the key to making markets work for the poor is to make markets work for enterprises so that in delivering public goods there is a private gain. It is essential when using public money however, that the public gains exceed the private. For example, in the agriculture sector in 2016, AECF's investees made a combined USD 15 million in private profits and created USD 207 million in improved incomes and wages for the rural poor. Many of these gains will take years to accrue, thus patient capital also requires a long-term monitoring approach to ensure its benefits are adequately captured. We monitor our investees for up to eight years to adequately capture these benefits when they appear.

A final key lesson is that there is a diminishing public return with more funds invested as the pipeline of good projects in a specific market is always limited. An investor needs to know who is operating in the same space to judge what can effectively be absorbed and to avoid crowding out other forms of capital. This makes market analysis and collaboration with other investors a critical planning tool before launching new funds.

Partnerships into the longer term – raising investment finance through AECF Scale and Connect

Bringing tens of millions of people out of poverty requires capital on an enormous scale. AECF is the largest challenge fund of its kind and one of the most significant individual investors in early stage agribusinesses and renewable energy companies in Africa, yet our funds are a drop in the ocean compared to investment needs across the continent. Linking our successful enterprises with additional and increasingly commercial rounds of financing as they grow is the job of our deal advisory unit, AECF Connect. Financed by Sida, AECF Connect provides technical and match-making support that aims to successfully link businesses with financiers. It has worked with more than 50 companies in the past three years, securing additional funding of USD 36 million for 11 companies, principally from impact investors.

Connect continues to evolve its approach, integrating its efforts into the ongoing support provided by AECF to investee companies through the alumni network, expanded partnerships, increased local knowledge and technical assistance services. Connect is an increasingly integral part of AECF's value offering to the private sector, bringing practical experience in overcoming the challenges of raising finance for innovative enterprises in difficult markets.

Five key challenges in bringing commercial finance to AECF investees:

Balancing priorities. Investee companies – especially those at an early stage – may lack the bandwidth to both play their role in the fundraising process and manage ongoing business operations.

Investors don't work where AECF works. AECF frequently funds companies in difficult places where other investors have not yet reached. Compounding this challenge is the typically small size and early stage of AECF investees.

Investee management teams, especially in the agribusiness portfolios, often lack the ability to communicate their value proposition and business plan to investors in a way that connects with the investors' requirements or criteria.

Investees have overly leveraged balance sheets and/or a reluctance to raise equity due to a concern about losing control or a desire to retain ownership of the business indefinitely.

Investees with poor propositions for investors due to low margins, small market size, long working capital cycles, very long payback periods or insufficient returns on capital.

Despite the success of Connect, AECF needs to expand its footprint on the financing continuum and evolve its product offering to cost effectively reach down to smaller companies whilst also scaling investment to larger businesses that are yet to reach the USD 5 million ticket sizes preferred by the market. Those companies graduating from our grant finance have been in a relationship with us for at least six years. We know them. At the moment, we work through AECF Connect to hand them over to subsequent investors having broken the asymmetry of information gap - but this still requires significant due diligence and risk mitigation costs for both the company and potential investor. Since AECF could not incur these costs, o offering an investment solution based on capital preservation rather than fully commercial returns, including various levels of guarantees, revenue sharing, debt and quasi equity or equity becomes a viable option for filling the 'missing middle'. This is the very purpose of AECF Scale developed in the new 2018-2020 strategy that we shall actively fund-raise for from 2018 onwards.

Impact investors linked to AECF investees by Connect

Investees graduating to additional finance through AECF Connect

27 fund raising agreements

USD 36 million raised

(for 11 companies)

Whilst our success is measured principally by how well our investees generate profits and development impact, we have an increasing focus on the quality of that benefit. The new AECF strategy includes a greater concentration on the creation of decent work and ensuring that the benefits generated at the household level are equitably shared between men and women. We are also increasingly interested in the nexus between our two fields of agriculture and renewable energy through innovative business models to support marginal farmers in arid and semi-arid lands. The following section provides an overview of our thinking and experience in these new areas:

Increasing and improving African jobs

Africa needs jobs. With a burgeoning young population that is often viewed as a challenge rather than an asset, policy makers across the continent are seeking to increase the quantity and quality of jobs. In more distant lands, countries targeted by migrants who make a desperate exodus across desert and sea recognise that they have a responsibility to support the creation of sustainable livelihoods in Africa.

AECF understands the potential of the private sector to create significant numbers of quality jobs in the rural economies of African countries, especially in the agriculture sector which is recognised by the World Bank as being twice as effective as other areas of the economy in reducing poverty. The companies that AECF invests in report the number of formal jobs directly created or sustained by our investments, in line with IRIS metrics. In any one year, some new jobs are created and some lost with employment generally surging during the establishment phases before settling during operational phases. With a maturing portfolio, direct employment stood at just over 11,000 jobs in 2017. Total wages amounted to USD 54 million with a substantial difference in income between renewable energy (USD 8,000 per annum) and agribusiness (USD 2,400) due to the generally higher skilled required of the innovative businesses in the renewable energy sector.

But this does not capture the real influence our investments make to employment more broadly, and particularly in the agriculture sector. The most significant impacts on employment by AECF is how underemployment is tackled through improved productivity at the farm level. This increases incomes and provides other characteristics of decent work, such as contracts with off-takers and establishing credit-worthiness, that move the farmer from a position at or below subsistence into the equivalent of a full time micro-enterprise employment . The 100,000 people who have been established as outgrowers in contractual relationships with AECF investees in 2017 are full time, self-employed agricultural producers, enjoying many of the characteristics of decent work.

AECF's investments drive the creation of employment at scale butmore importantly, our greater focus on inclusion is improving the quality of this work. We require our investees to maintain high standards of employment and equality in recruitment and promotion. As we change as an institution, we will increasingly provide advisory funds to embed issues of equality, build individual capacities through training and establish transparent human resource management mechanisms to ensure that all people can enjoy a fair, balanced and inclusive working environment.

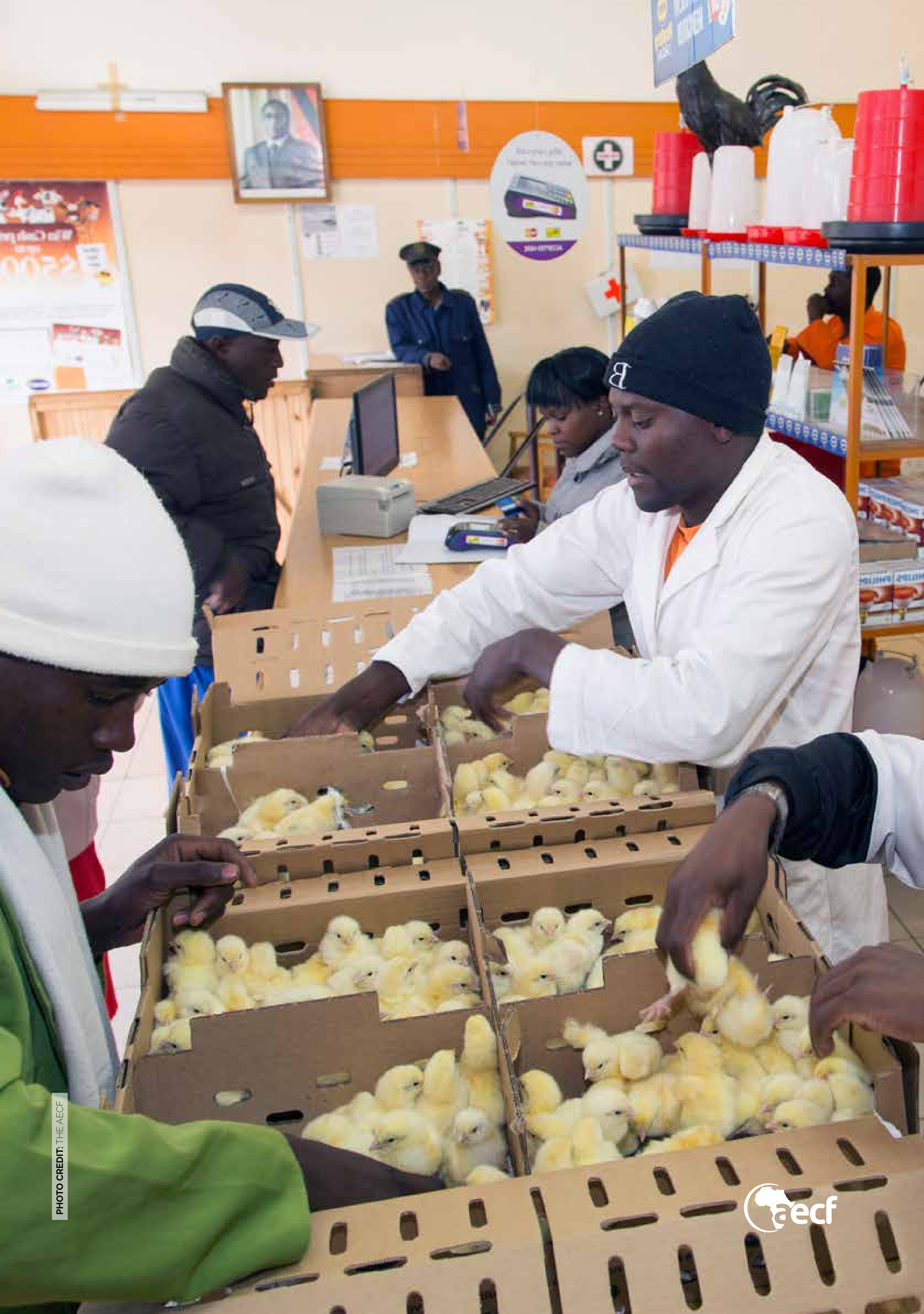


PHOTO CREDIT: THE AECF

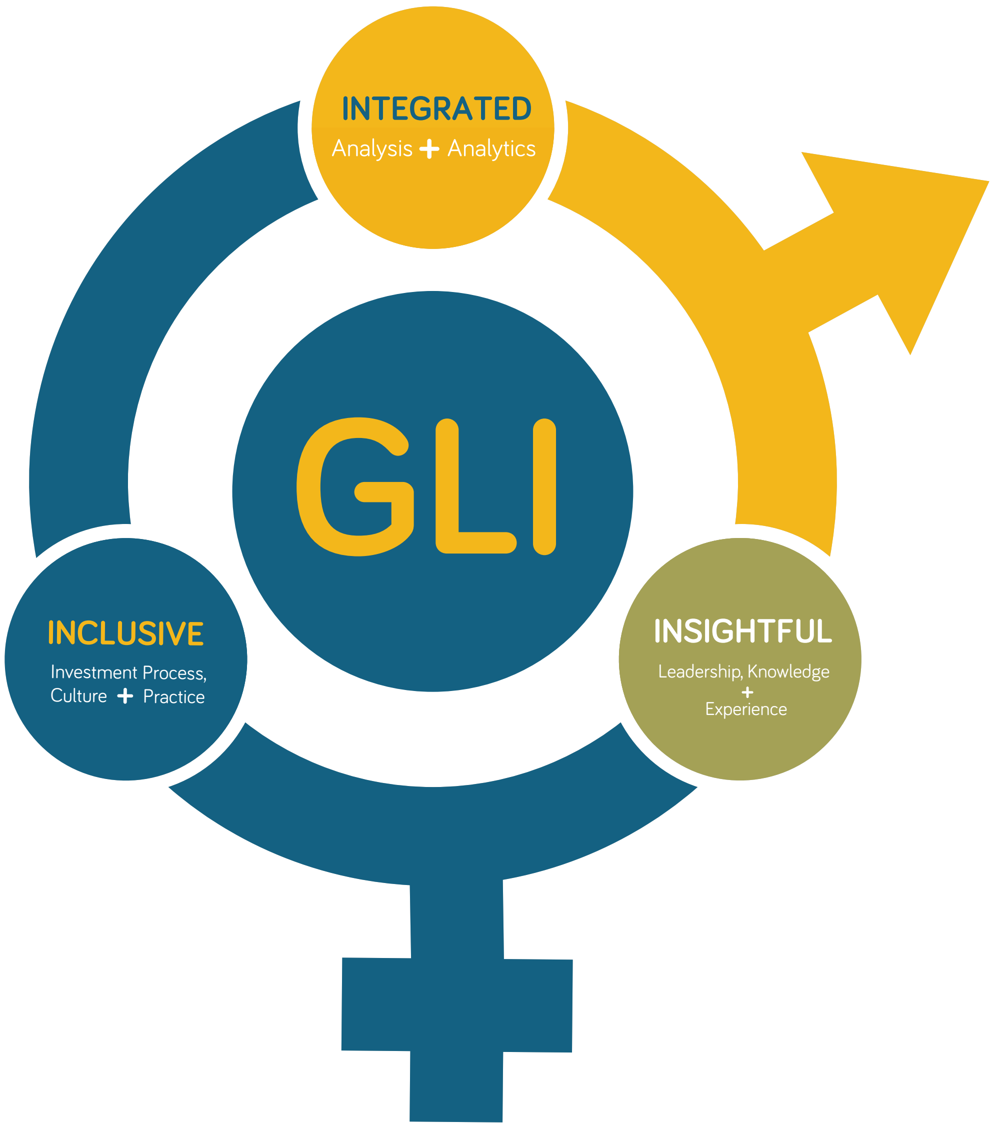
Three I's for Impact: Investing with a Gender Lens

With time, AECF has incrementally strengthened gender analysis in its investment decisions, culminating in 2016 agribusiness funding from Canada with a specific emphasis on promoting gender equality. In 2017, we redefined our mandate and brought on board an enhanced focus on gender lens investing into the core of our operations, in recognition that the full participation of women as producers, consumers, business owners and key decision-makers can be a potent force for change. Women face structural barriers in accessing finance, training and education, markets, paid employment and in creating sustainable and prosperous livelihoods. There has been a market failure in acknowledging the participation and leadership of women to fuel transformation and we seek to reverse the practices that devalue the lives of women. In this way, gender is both a risk and an opportunity. Thus, AECF targets 25 million people to be reached by 2020, half of whom should be women.

Rural women experience a disproportionate lack of access to infrastructure, financial services and information which, combined with the additional barriers created by gender patterns and norms, result in a cycle of poverty and inequality. These barriers must be overcome if we are to achieve our vision for a thriving rural Africa. Our investment strategy for gender seeks to accelerate solutions that will result in the full and equal participation between men and women in the value chains in which we invest.

Gender lens investing (GLI) at AECF will target businesses led and owned by women or those that employ significant proportions of women, but also any business that reduces barriers for women with the potential to shift markets in ways that are more inclusive or require less adaptation by women to participate. This approach requires inclusive investment practices and the development of an investment thesis informed by gender analysis which is used to determine the processes, terms and partnerships required as well as the articulation of achievable outcomes. Our comprehensive strategy on gender comprises designing, experimenting, refining, and sharing this approach, coupled with gender mainstreaming activities within AECF and encouraged across the portfolio companies. Our gender strategy can be summarized through the 3i's.

AECF's Gender Strategy



We will **integrate** a gender analysis throughout the development of our investment strategies and design and host **inclusive** investment processes that allow equal access to our finance. We will mainstream gender into the practices, policies, and processes of the entire organisation. Finally, we will increase our voice and leadership within the global GLI field, offering **insights** on our experiences in mainstreaming gender to our funders, partners, investees and broader audiences.

In line with this renewed commitment to promoting gender equality and the economic advancement of women, we have launched our flagship initiative on gender. The Investing in Women Programme is a USD 50 million fund with initial funding of USD 5.9 million from the United Kingdom, which aims to increase the participation of women working in agricultural value chains. It will be piloted in Ethiopia, Burkina Faso, Sierra Leone and Cote d'Ivoire in 2018 and include a gender mainstreaming prize as a new tool to encourage engagement with gender inclusion at the company level.

Mitigating climate change with a view to the future: adaptive agriculture as the new normal

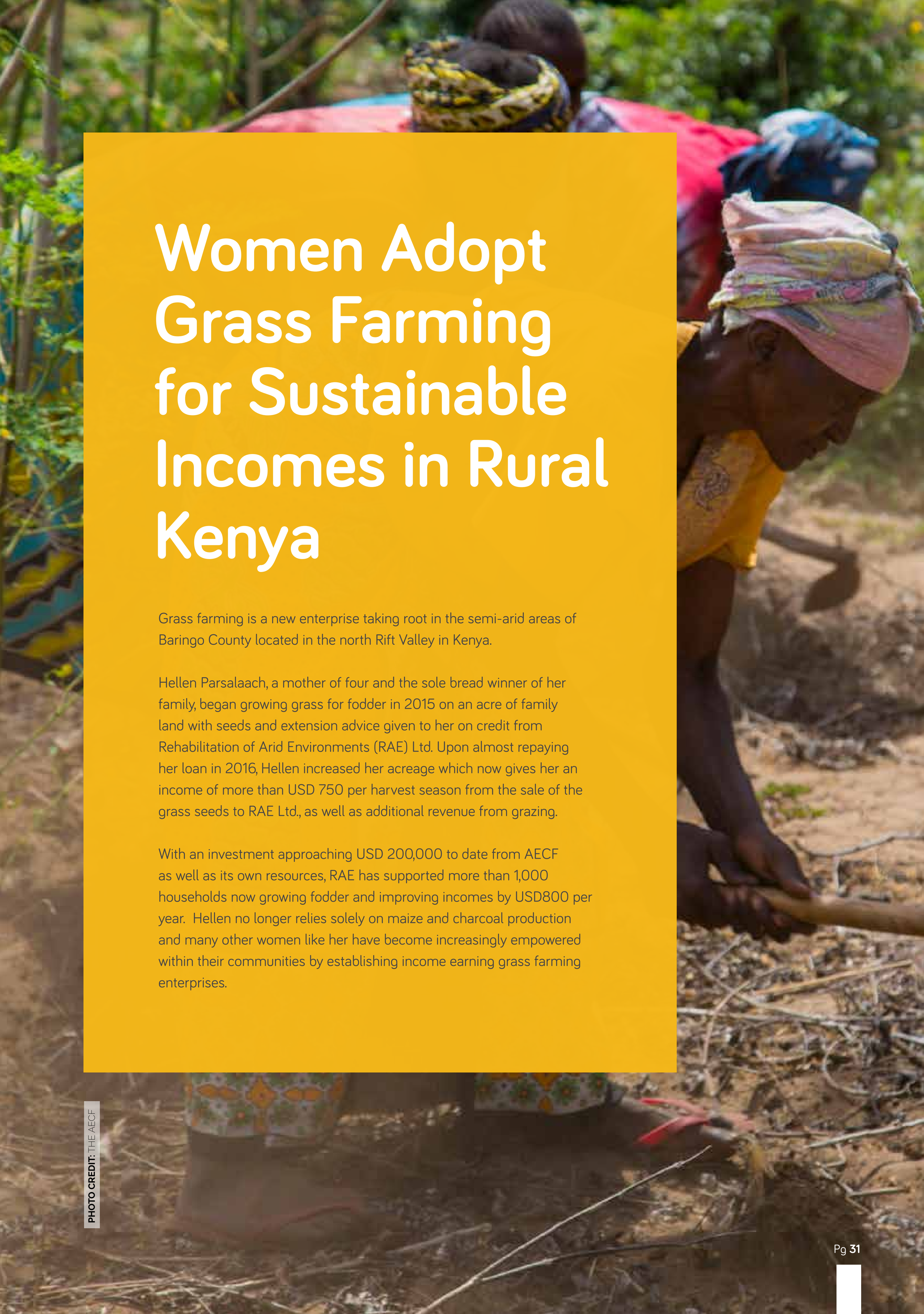
AECF's area of operations in Southern Africa and Eastern Africa were affected by devastating drought between 2015 and 2017. In the Horn of Africa, it has been named ***Odi Kawayn***, Somali for 'bigger than the elders' and is the most severe in living memory. In many parts of the region, drought was replaced by floods following good rains in 2017 and early 2018, and there is a growing appreciation that climate change is increasing the frequency and impact of extreme weather events and systematically changing agriculture. Smallholder farmers and pastoralists, whilst making the smallest contribution to climate change, are some of the first to be affected by it and the least able to manage the effects.

Arid and semi-arid lands are environmentally fragile, frequently remote, often beset by conflict over resources, underserved by institutions of the state and lack physical and economic infrastructure. These are not particularly fertile grounds for the private sector investment, especially in agriculture - yet the private sector has an important role to play in providing goods and services to the people inhabiting these regions. AECF, supported by DFID's prescient StARCK+ Programme (www.starckplus.com) extended blended support to both the public and private sectors in the fragile areas of Kenya, investing in nine companies in 2015 to explore how this could best work.

The interventions have sought to introduce adaptation technologies to enable smallholder and pastoralist farmers reduce the risk exposure to the consequences of climate change. This includes the introduction of new crops where there is a market for end products, such as the eri-caterpillar silk by Tosheka Textiles, the croton nut for fuel and oils by EcoFuels and moringa by Kilifi Moringa. The causes of climate change can be mitigated with solar water pumps (Solar Now, FuturePump) and new technologies and practices to make more out of the scarce water available (Equator Chilli). Although most adaptation projects are in their development phases, we reached 186,000 households in 2017, with the majority of the benefit being generated by post-harvest technologies.

AECF's adaptation portfolio is focused on Kenya, a relatively well developed country with functioning local institutions, funding for addressing issues around climate change and a vibrant private sector. However, climate change affects all our areas of work and we will need to view all of our investments in the agriculture sector through an adaptation lens. Adaptation is a process, and not an event with solutions evolving over time, thus justifying the patient capital that the AECF brings. It is also contextual and what works in one environment may not work in another. This reality is a critical reminder that learning and communicating our experiences into the knowledge ecosystem is important.

As we have found out in other fragile state environments, when a market exists, innovative companies can rapidly gain traction by providing solutions to pressing local problems. In some of the most marginal areas where we work, such as Somaliland, domestic animal herds have been decimated and may never recover. Even in these calamitous scenarios, with the forced relocation of people to climate or conflict- origin refugee camps, the private sector's role is cut out to provide sustainable services and pathways out of extreme poverty. By blending our experience in adaptation, mitigation and fragility in 2018, AECF will be launching the first of its interventions into the humanitarian assistance space.



Women Adopt Grass Farming for Sustainable Incomes in Rural Kenya

Grass farming is a new enterprise taking root in the semi-arid areas of Baringo County located in the north Rift Valley in Kenya.

Hellen Parsalaach, a mother of four and the sole bread winner of her family, began growing grass for fodder in 2015 on an acre of family land with seeds and extension advice given to her on credit from Rehabilitation of Arid Environments (RAE) Ltd. Upon almost repaying her loan in 2016, Hellen increased her acreage which now gives her an income of more than USD 750 per harvest season from the sale of the grass seeds to RAE Ltd., as well as additional revenue from grazing.

With an investment approaching USD 200,000 to date from AECF as well as its own resources, RAE has supported more than 1,000 households now growing fodder and improving incomes by USD800 per year. Hellen no longer relies solely on maize and charcoal production and many other women like her have become increasingly empowered within their communities by establishing income earning grass farming enterprises.

PHOTO CREDIT: THE AECF

With more than 250 investments in 40 value chains across 25 countries in a span of ten
where we operate. In this concluding part of the Impact Report, we offer some insights int
work in Zimbabwe it prepares for change in 2018:

The Challenge Fund as a tool for promoting renewable and clean energy solutions

The Challenge Fund as a tool for promoting renewable and clean energy solutions

Since 2011, AECF has invested in innovative renewable energy companies bringing clean energy solutions to low income households. Although our focus has been on household solar systems, we have funded companies in mini and micro grids, clean cooking and biogas. We are also at the nexus between agriculture and renewable energy, such as solar powered pumps.

What have we learned? Here are a few key thoughts on how challenge fund mechanisms have worked for renewable and clean energy investees…

A "silver bullet" solution to off-grid electrification?

Off-grid decentralised micro and small solar home systems provided through incremental end-user payments are the best current option for the rapid roll out of affordable basic electricity access to millions of rural off-grid customers.

Other systems will require patient capital…

Small-scale power generation and mini-grids providing productive quality power can also create immense systemic impacts through follow on economic development. Together with investments into other renewable energy and related sectors, such as biogas, biofuels, micro-grids, solar water pumping and irrigation, these solutions require extraordinarily patient capital and a longer time horizon. However, packaged with end-user financing, facilitated through advanced metering and PAYGO technology to enhance affordability, they could be the best option in the future when the enabling ecosystems have developed.

Biomass energy is challenging.

Creating a market for alternatives to firewood and charcoal for cooking has proved to be much more challenging, as we are essentially asking consumers to give up cultural norms and a widely available, unregulated resource for an unfamiliar product that comes at a price and is subject to taxation and regulation. The business models are complex and have not escaped market spoilage in the past through subsidies and the distribution of free stoves. More progressive public policies will be critical. Nevertheless, businesses must strive to design innovative business models capable of securing profits and scale-up in the long-term.

years, AECF is building an understanding of what works and what doesn't in the markets
o the challenge fund model in renewable energy and fragile states including a review of our

Multiple objectives in a challenge fund can be difficult to reconcile and sometimes conflict with each other, thus flexible approaches are required.

Multiple funding partners require multiple objectives. AECF faces demands for environmental and development benefits, employment benefits and gender impacts. Business models must be selected on the basis of their potential profitability, but they must also reach the hardest bottom-of-the-pyramid or work in high risk remote markets. This requires good competition design and marketing, flexibility in instrument and funding size and the application of the portfolio approach.

Successive rounds of a funding window allow for strategic clustering, building up a portfolio and learning.

A single round of funding will gather those companies that are ready for financing, leading to a set of disparate projects in dispersed locations. Successive rounds, as has happened with AECF's off-grid solar portfolio, allow for building strategic clusters of technologies, gradually adjusting and strengthening the challenge as the market evolves. Lessons in one market can be taken to other, similar areas, with other partners – such as the Sida funded REACT SSA evolving from systemic change generated in East Africa.

A range of flexible support instruments for start-ups are necessary…

A fund must have flexible approaches that respond to investee needs. Repayable grants may not be appropriate for a company eager to raise capital and scale across borders, when all it may need is a guarantee for a loan. Technical assistance is necessary but must be relevant and well-timed; top-up funds to successful companies may catalyse more impact for little additional cost, take a promising model into profitability or alternatively merely delay failure. Fixed competition dates have the disadvantage of excluding some promising companies, just because they were not at the right stage at that particular time. Walk-in windows may be more suitable for such cases but this raises issues about the fair disbursement of public funds. With a portfolio composition of roughly 80% start-up companies, it is not just about one-off financing and the challenge fund manager needs to have options to graduate investees to subsequent funding as they scale.

Challenge fund governance mechanisms and processes need to be responsive to start-ups.

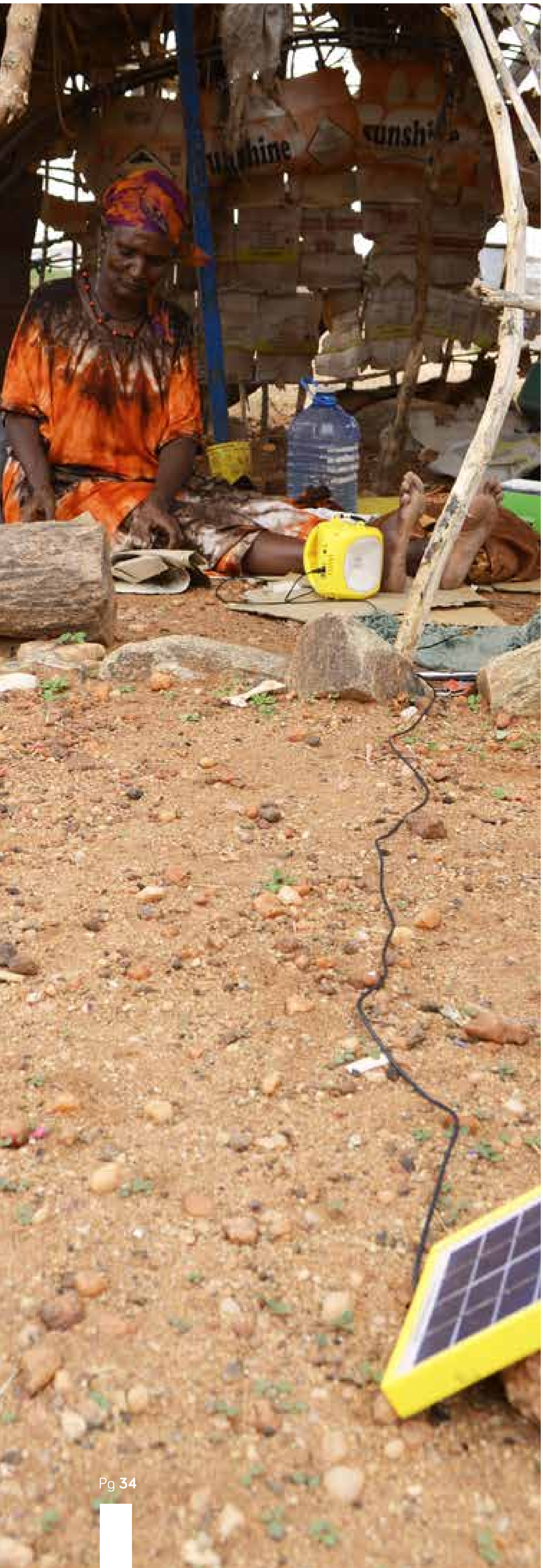
Governance related issues invariably arise at every external review of REACT. These include the need for clarity on the funding decisions for loans and grants and top-up funding; exit strategies once projects come to an end; and decision making for more problematic projects - for example those with high potential but experiencing significant delays. Governance and management structures need to be considered strategically right from the start.

Learning, advocacy, and business environment facilitation need to be designed and resourced from the start.

Renewable energy, and indeed all of the AECF's investments, provide a rich learning ground for the different sectors: for the market; businesses; investors; and policy makers. Providing research funding in the design of the programme enables a learning agenda and data collection to be initiated from the very beginning.

Higher risk appetite does not mean ignoring the fundamentals

AECF's investment decisions are less constrained by risk and return considerations than traditional venture capital and we can take on relatively early stage companies and business models. However, we still look for proof-of-concept; pilot testing; a level of market testing that indicates potential; and strong capacity within the company to execute.



Making markets work in difficult places

AECF fulfils a unique role in providing funding at scale for the private sector in risky places that others cannot reach. This can have significant effects in kick-starting local economic development. However, operating private enterprises in these markets is difficult. There is a lack of information, poor physical and legislative infrastructure, limited human resources, small and fractured markets and often a risk of a return to physical violence. The local economic space is frequently captured by local political elites, there is little capital and what is available is expensive and informally allocated. Energy, particularly productive grid energy, is irregular and expensive. Markets are often distorted by aid or government interventions.

However, there are also positives in these scenarios. Since imports are usually difficult to obtain and expensive the situation benefits local production, and where there is considerable pent up demand local business operators are savvy and experienced in getting things done under challenging circumstances and there are often links to competence and funding in the emigre population. In environments transitioning from conflict, the private sector can often provide goods and services more efficiently than donor organisations and in doing so work to establish sustainable local capacity. Fragility and conflict are also frequently a regional phenomenon rather than a national occurrence, meaning that local commercial partners bring the added value of language and cultural experience.

The majority of AECF's investees are located in the larger and more stable markets in East Africa, where resources and scale allow innovation to thrive. However, a significant and growing aspect of our business is in fragile countries and those emerging from conflict or political unrest. Whilst our efforts in South Sudan have understandably struggled with the return to active conflict, some of our most successful interventions have been in diverse and challenging environments right across the continent, from Sierra Leone to Somaliland and Mozambique.

Ten key lessons from the difficult places

When operating in fragile and post conflict countries all stakeholders must change their approach and their expectations, but success is still achievable....

1. Pick a brave financier – normal rules may not apply in terms of administrative comfort for the funding partner. It will not be possible to check and verify everything and the provider of finance needs to trust the Fund Manager's opinion and accept the balance between risk and potential reward.

2. Patience, patience and more patience ... investing in the private sector, especially in agriculture, requires patience, but even more so in fragile states where things are generally slower and more difficult to achieve, from gaining regulatory approvals to exporting goods and raising matching funds.

3. Accept that some things cannot be changed – this calls for acknowledging the limitations of information availability on companies, individuals, institutions and markets as well as capacity within them to deliver. Companies may not be able to provide standard accounting documents and reporting may not be up to standard.

4. Recruit locally – fragile states need local connections to get things done, frequently in informal ways and in cash. In general, this is not a space for well-meaning foreigners.

5. Don't fund the bad man (for it is generally a man) – many of the key business actors in fragile states are the same people that made those states fragile in the first place. One area where the Fund Manager and the funding partner have to be rock solid in their due diligence is ownership and ultimate beneficiaries of investee companies.

6. Trust your gut – impact investing is generally as much about investing in the person as it is about investing in the business and bringing in really experienced business people to interview applicants is critical to finding not only those people capable of implementing, but also those that share the ethos of the programme as a whole.

7. One size does not fit all - capacities and potential vary widely between regions and countries and differing markets will offer variable quality proposals and scales of potential investment. Don't make Sierra Leone compete with Somaliland, but evaluate against peers to get the best offers available.

8. Beware the exchange rates! AECF provides both grants and loans in fragile states, with a significant emphasis on the latter in part because there are few tools to enforce repayment but also because dollar-based loans become very expensive when local currencies devalue – which they almost always have done in the long-term projects that we fund.

9. Understand the market – whilst there are limits to what can be known during due diligence, local partners can provide a better understanding of local markets especially where populations move across political borders or fragility is regional rather than nationally based

10. Aim high – in an environment almost entirely lacking in formal investment funds, AECF has been able to pick the best of what is available. Low hanging fruit have the potential to generate really significant results in both a business sense and more importantly, directly on improving lives.

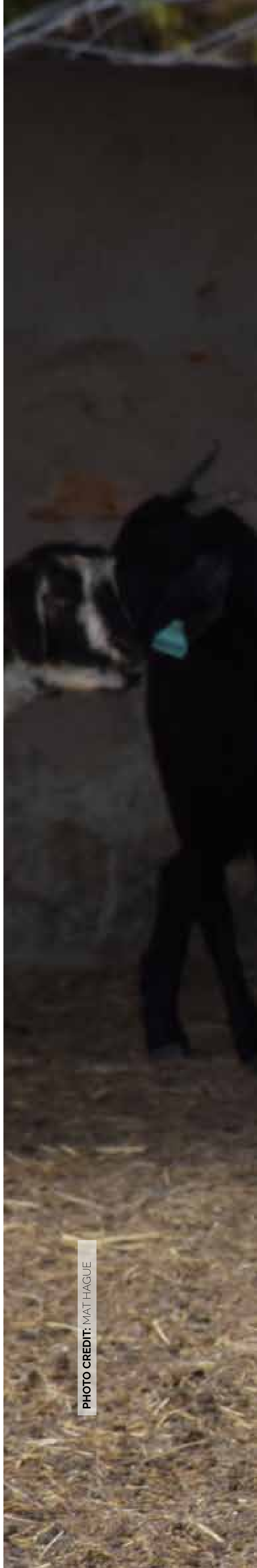
Despite the expected difficulties and perception of high risk, the AECF portfolio in difficult places like Somaliland, Sierra Leone and Democratic Republic of Congo has performed extremely well because it was able to pick the best projects available, work with the most competent local investors and was managed with a collaborative and supportive approach.

Zimbabwe – supporting market system change through economic, political and climatic crisis

AECF started working in Zimbabwe in 2010 with funding from Australia following the 2008 dollarisation of the currency, to support the first signs of economic recovery. The past eight years have witnessed remarkable times; including economic growth followed by a dramatic decline, a country without cash, a peaceful protest, a bloodless coup, a retiring dictator and all eyes on the new President as the country prepares for the 2018 election year.

Since 2009, AECF committed USD 18 million of interest free loans and grants to 30 businesses with the aim of supporting the recovery of the agricultural sector. The majority of these enterprises targeted the new equitable reality of Zimbabwean agriculture, working with outgrower schemes and smallholder farmers. Some centred around financial inclusion in the form of mobile money, microinsurance or microfinance in rural areas, others on improved seeds and in the livestock and poultry value chains. With an economy showing signs of growth, targets and hopes were set high.

As we now reflect, it is safe to say the hopes for Zimbabwe did not materialise as anticipated. The increasing political and economic instability coupled with drought provided numerous challenges. Many businesses struggled through this period and some failed. However, there are still remarkable success stories, innovative ideas and signs of true resilience. In many ways, Zimbabwe represents the essence of what AECF does – providing capital at scale in difficult places where others will not; having patience and perseverance in the face of adversity and supporting businesses to develop models that reach low income communities even in exceptionally trying circumstances.



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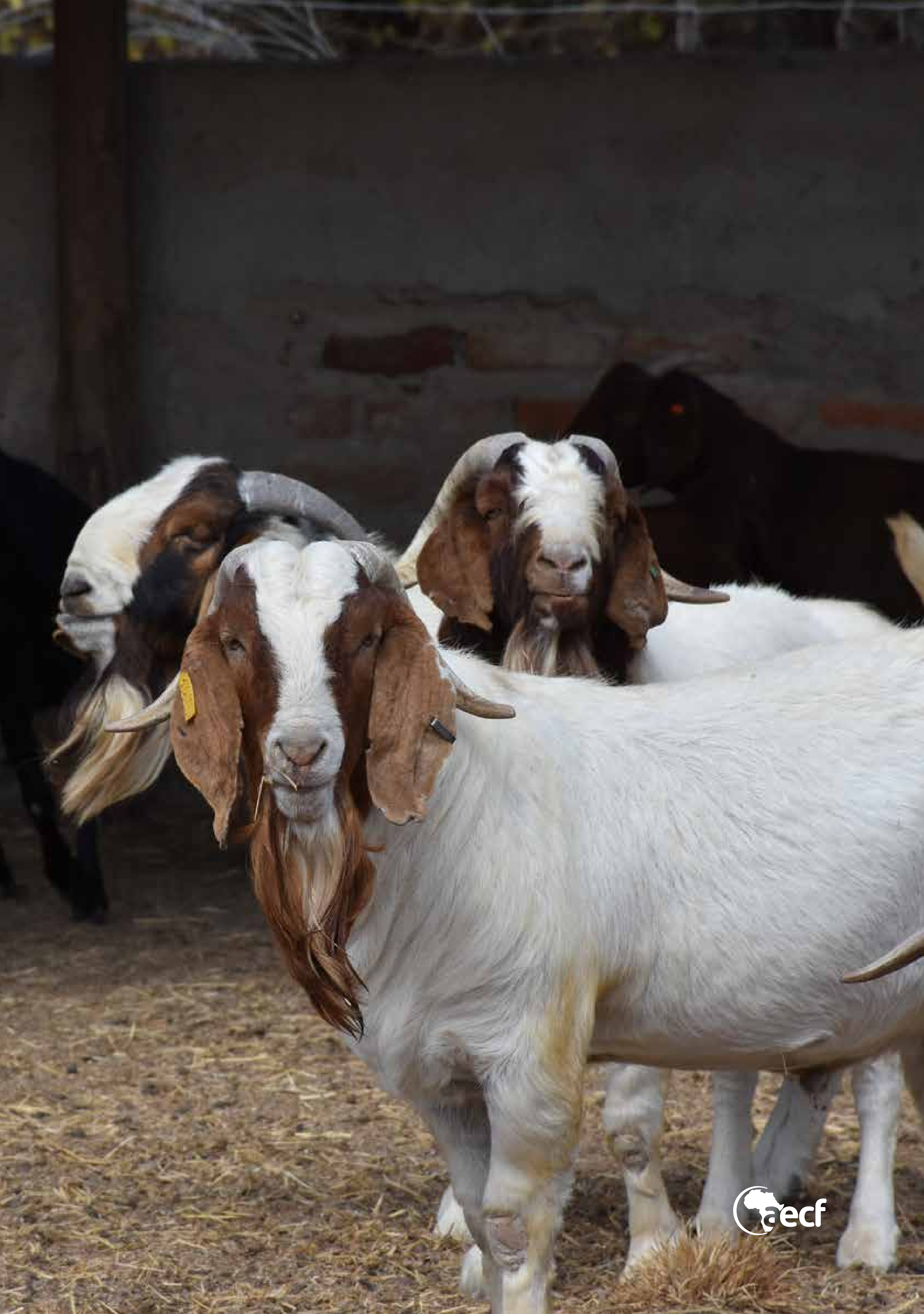
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Portfolio investment seeks both depth and breadth

Funding in Zimbabwe targeted the livestock, poultry and cereals value chains but also sought to bring innovation to supporting systems to market, financing companies providing novel solutions in financial services and information for low income farmers. Diverse investments sought to regenerate the cattle and goat sectors through improved genetics available to smallholders, farmer advisory services, feedlot infrastructure and animal buying and processing systems.

This integrated approach to commercialise livestock production for small-scale farmers has struggled particularly due to the lack of markets, but it has also led to the formation of the Livestock Solutions Consortium as a formal structure to bring collaborating firms together to provide sustainable access to market for smallholder producers. Lessons, particularly for community-level improvement of genetics, have been replicated in other areas of AECF operations and have significant potential in marginal ecosystems subjected to overgrazing.

As the era of large commercial farms is replaced by smallholder operations, high value cattle are being replaced by small ruminants and poultry and industrial poultry production by backyard operations for both broilers and layers. AECF funding has been crucial in supporting this market system change, working with companies selling layer hens, offering integrated solutions including feed, chicks and equipment, with others developing innovative models for outgrowing broilers.

This approach strengthens subsistence production to allow very poor farmers to both improve household nutrition and to begin to access the market, leading to transformational income generation and a particular benefit to women. Again, the scale of AECF's investment in poultry across the continent (nine projects in six countries) has enabled the exchange of ideas on production systems and appropriate breeds - Yelo Egg for example, follows many of the approaches of Ethiopia's EthioChicken and reached almost 3,500 households in 2017, generating an average increase of USD 183 in income.

Significant implementation challenges were faced with field crop value chains including bureaucratic delays, side selling, cash flow constraints and difficulties with implementing training, as well as with monitoring and record-keeping. AECF invested in a diverse range of companies from seed producers to outgrower schemes and trading houses seeking to create markets for newly commercial smallholders.

Government interventions and policies favouring a centralised control of prices and market systems have forced many to change their business models. While difficult, this has driven companies to innovate and diversify away from maize into different crops including the climate resilient sesame and more nutritious climate appropriate legumes. Farmers are increasingly willing to grow a crop other than maize, safeguarding against the effects of climate change, diversifying income streams and improving the availability of nutritious food in the home.

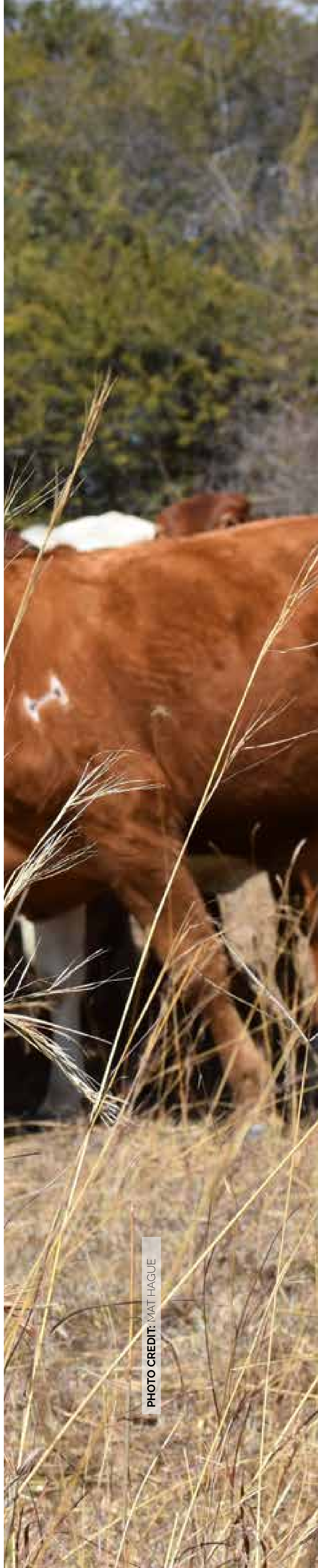
AECF also funded the technology infrastructure to bring modern financial services to smallholders, including insurance, microfinance and mobile money platforms. In 2011, the Cabs Textacash system was an early player in the mobile money market in Zimbabwe. With the rural unbanked previously having to physically transport even small amounts of cash by bus, using a mobile phone to make payments reduces transaction costs, speeds up economic activity and starts to include people into formal financial systems. With the more recent cash crunch in Zimbabwe, mobile money has seen a vast uptake across the country. While Ecocash is by far the largest mobile money provider, the AECF funded Textacash were the pioneers.

Disrupting markets and funding first movers is a key function of AECF. As with mobile money, introducing weather index insurance faced challenges at a company level but offered sector-wide lessons that other actors were able to use to offer improved products to the smallholder market. Changing behaviour for products that deliver benefits only over the longer term requires patience, vision and a willingness to finance the bigger picture.

The future is bright…

Despite enormous challenges and uncertainties in Zimbabwe's agri-culture sector, AECF's partners have displayed the grit and tenacity to generate real market system change for poor farmers in the country. Building on this, in 2017 AECF expanded its footprint by bringing on board new investments into the country for household solar systems.

With more resources in 2018, this funding will kick-start the private sector in the provision of clean energy to underserved rural areas. With the political landscape providing hope for economic and social rebirth, AECF, working with both new and existing partners, is ready to mobilise the private sector to deliver sustained market system change for rural people.



Learning at AECF

AECF has unparalleled experience in mobilising the private sector in the agriculture and renewable energy sectors to reach low income people in sub Saharan Africa. How we invest has evolved as we learn what works and as new challenges have emerged. AECF started on the premise of bringing very large companies into the smallholder space but increasingly works with smaller, local enterprises with greater social, cultural and economic links to the people that we want to bring out of poverty.

From large scale production of staples by outgrowers, we are now financing adding value to climate and culturally appropriate nutritious foods, supporting an inclusion agenda and a more complex understanding of impact. We have financed a broad range of renewable energy technologies, from solar home systems to biogas, mini-grids and cookstoves, and our experiences are enabling us to build an investment case in each for different countries across the continent.

Learning and sharing what works in the areas where we invest has always been important, but this has taken on renewed emphasis after the establishment of AECF as an independent institution in 2017. We are increasingly involved in a wide range of technical discussions on agriculture and renewable energy but also on thematic issues of private sector investing, addressing poverty and inclusion. A substantial research programme supports a collaborative approach that blends world leading technical partners with a real world private sector portfolio and, increasingly, policy makers and advocates.

Our analytical framework is based on generating high quality, cost effective and timely data that has practical application for our investees, our own operations or the wider ecosystem. We constantly seek new methods to keep information collection relevant, including driving our investees to integrate understanding and measurement of impact as part of their normal business processes. Our research agenda follows three core principles: improving our understanding of how what we do improves the lives of poor people; improving how we capture the benefit that our investees generate; and developing innovative approaches to how the private sector can drive inclusion.

We are always keen to engage with individuals and institutions to drive learning and knowledge exchange. Our current research priorities include:

- In renewable energy we are currently looking at the various levels of poverty that we are able to reach with the different business models that we finance. This will enable us to more clearly identify who benefits from our investments and fine tune our models to maximise impact;
- After seven years, it is also a good time to take a breath and see where our renewable energy investments need to go in the future. We are currently completing a study of our key markets and products to provide an evidence base of where we should look to expand our portfolio;
- Many of our investees provide inputs or assets on credit and a key potential benefit is the use of a repayment record to access finance from third party sources – but does this really happen and what are the challenges? This important study will help to guide both benefit measurement and investment design across the portfolio;
- Minigrids have been seen as a potential solution for off grid productive power but are facing significant hurdles especially from regulatory authorities. This ongoing study will position AECF for its future investments in this sector;
- We have provided a number of investments to companies developing clean cooking technologies and biogas and this study will contribute to ongoing sector discussions on renewable over clean fossil fuels;

- In a world increasingly affected by climate change, appropriate agriculture is going to become the new normal. Our pilot portfolio of adaptation projects now needs to be mainstreamed across all of our agriculture and renewable energy business;
- We have successfully implemented major investments in agriculture at the country level in Zimbabwe and thematically in mobilising innovations from research institutes. It is important for us to capture the key learnings from these programmes both to maximise impact from them and to develop new investment proposals for our funding partners;
- AECF implements a comprehensive results measurement mechanism and is taking this conversation a step further with a study on disaggregating the benefit generated by different investors in the same enterprise. This will improve the attribution of benefit and the transparency of results measurement in the impact investing sector;
- We are reviewing the performance of a sample of our earlier investments in improved variety seeds for smallholders as part of our preparations for a new investment window to be launched in 2018;
- There is huge potential for lowering results measurement costs in a world where multiple actors are creating data, but understanding what is out there and how we can make best use of it is a significant problem. Landscaping this data is a first step to developing a more comprehensive programme of low cost results verification for both AECF and its investee firms;
- One of our biggest areas of potential impact is information direct to poor people, but understanding attribution of the various models our investee use is a challenge. Research in this area seeks to generate credible models that can be scaled across the portfolio;
- With the launch of our 2018 Gender Lens Investing strategy, the Investing in Women window and the mainstreaming of gender lens investing throughout AECF, we are also developing and implementing gender audits of our investees;
- As well as gender, AECF is building understanding of and capacity in nutrition so that we can maximise the nutrition effects of our investments, particularly for women and girls. This work includes new nutrition metrics and methodologies for measurement of nutrition pathways and effects;
- We have an ongoing interest in outgrower models as a core approach for the creation of transformative impact for smallholder farmers. Our analysis has looked at defining the models that work and is now moving into the benefits of contracts;
- A significant issue at the heart of impact is the creation of decent work. Understanding how our investments bring individuals either decent work or economic activities with the characteristics of decent work is strengthening our ability to guide our investees to create worthwhile employment for poor people;
- The final aspect of ongoing research is looking at youth employment, seeking to maximise how our investees can impact on jobs for young people and designing a comprehensive investment approach for youth employment that AECF can take to our funding partners.

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