

Learning Paper

Creating opportunities for
decent work in the AECF's
agribusiness portfolio

April 2017





The Africa Enterprise Challenge Fund (AECF) is a multi-donor funded financing vehicle which works to stimulate private sector entrepreneurs in Africa to find innovative and profitable ways of improving market access, and the way markets function, for the rural poor. The Fund awards grants and non-recourse loans to projects focused on agriculture, renewable energy and adaptation to climate change, and access to financial services and information, with the aim of improving households incomes and reducing rural poverty.

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 **The Fund Manager of the AECF is KPMG International Development Advisory Services Africa**

KPMG International Development Advisory Services (IDAS) is the Fund Manager of the AECF.


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IPE Triple Line has worked with KPMG IDAS since the AECF was launched in the capacity of the AECF's monitoring, evaluation and learning partner.

1. Executive Summary

This paper examines the impact that agribusinesses funded by the Africa Enterprise Challenge Fund (AECF) have had on the creation of opportunities for decent work.

The International Labour Organisation (ILO) defines decent work as “opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men”.

Decent work is at the centre of the development agenda – Sustainable Development Goal (SDG) 8 commits the development community to providing decent work and economic growth. The need for decent work is particularly acute in Sub-Saharan Africa, where the working-age population is predicted to double over the next 40 years. This presents both a challenge and an opportunity. If the economic potential of this new, young generation of African men and women can be harnessed through the creation of decent work opportunities, then the region will benefit from the ‘demographic dividend’. Alternatively, if not enough decent work opportunities are created, further poverty and civil unrest is likely.

AECF funded projects have led to the creation of decent work opportunities through three primary mechanisms:

- Creating good quality formal jobs for men and women in-house as part of project implementation
- Raising agricultural productivity and increasing opportunities for decent work for direct project beneficiaries (men and women)
- Stimulating the creation of decent work opportunities through value chain effects and consumption effects in the wider market systems in which AECF projects operate.

Using a mixture of quantitative analysis and qualitative case studies, the AECF agribusiness portfolio was analysed to assess the different ways each of these mechanisms operate. This analysis also examined whether certain types of projects have a greater impact on the creation of decent work opportunities.

AECF funding to agribusiness projects has led to the creation of over 3,500 formal jobs¹ with a cumulative wage bill of US\$53m between 2008 and 2015. In 2015, the average annual wage bill for a job created in an AECF

agribusiness project was US\$3,905. 61% of these formal jobs were taken by men, with 39% taken by women.

The paper found that AECF funded input supply projects created significantly fewer formal jobs than those engaged in agro-processing, primary production and marketing and distribution. This is because input supply businesses are often less labour intensive and frequently rely on a wider network of independent agents acting as distributors. Also of significance is the fact that the average employee in businesses engaged in primary production earned approximately 29% less than average. This may be because these jobs were not engaged in ‘value-addition’ to agricultural commodities, unlike the majority of formal jobs in companies engaged in agro-processing and marketing and distribution. Finally, the analysis showed that agro-processing businesses employed 25% fewer female employees than the average. This is likely to be because factory and processing jobs are typically done by men in many of the countries in which AECF funded businesses operate.

A number of avenues by which AECF funded agricultural projects have raised agricultural productivity and increased opportunities for decent work for self-employed smallholder farmers. Case studies are used to highlight how the provision of high-quality inputs, agricultural training, product bundling, opportunities for women in particular, risk-mitigation strategies, value-chain infrastructure, and links to export markets can have a significant impact on the incomes of direct household beneficiaries.

To demonstrate how projects have had wider market systems impact, the value chains of three AECF funded agribusiness projects are traced and analysed to illustrate the indirect creation of decent work opportunities. Although difficult to calculate the level of indirect job creation precisely, these case studies provide an estimate of the indirect creation of opportunities for decent work, and qualitatively show how AECF-funded projects can have a wider market systems impact through value chains and consumption multiplier effects.

Finally, this paper synthesises the key lessons from this research into the following actionable conclusions and recommendations:

Recommendation 1: Investing in businesses which support smallholder agriculture will be fundamental in creating opportunities for decent work. This is particularly important as the World Bank estimates that economic growth in the agricultural sector is twice as

effective at poverty reduction as growth in other sectors of the economy.²

Recommendation 2: Donors, development practitioners and investors focused on creating opportunities for decent agricultural work in sub-Saharan Africa should design programmes and target investments which will address both unemployment and underemployment. This will require interventions which improve the quality of, and return on, existing agricultural work, as well as the creation of good quality new jobs.

Recommendation 3: It is critical that programmes and investments have a clear definition of what decent work means in their specific contexts. This should include strategic objectives with appropriate indicators and targets measuring appropriate aspects job quality. These should include equity and gender objectives.

Recommendation 4: Increasing smallholder farmer productivity is a key to improving the quality of work in sub-Saharan Africa. Doing this well will require creativity, commitment and a deep understanding of local contexts. This implies a continual investment in research and analysis alongside interventions. Donors and investors should also provide finance to business models which provide farmers with the inputs and training they need, and enable them to take the risks required to turn their farms into businesses.

Recommendation 5: In the long run, advanced production techniques and technologies will result in fewer farmers producing more agricultural products. It will therefore important to create opportunities for decent work outside of agricultural production, for example in areas such as post-harvest processing, transportation, storage, and sales.

Recommendation 6: Donors and investors focused on creating opportunities for new jobs/decent work as defined in this paper should specifically focus on agribusinesses which bring value-addition in country. Market system assessments should be conducted at the local, national and regional level to identify agricultural market systems which could benefit from having a competitive advantage and with potential for creating high-quality jobs.

Recommendation 7: Donors and investors willing to support agribusinesses operating in fragile or post-conflict states difficult places can have a transformative effect if projects succeed. In particular, the secondary consumption effects from increased employment in these areas can have a catalytic impact on enterprise and job creation. The AECF's Post-Conflict-Window (PCW) has

demonstrated how a successful business can sustain entire communities through providing direct employment and secondary consumption effects.

Recommendation 8: More research is required on trade-offs between novel and innovative agricultural business ideas and the creation of opportunities for decent work over different time scales. Understanding this dynamic better could help enterprise challenge funds, impact investors and market systems development programmes find the balance between innovation and job creation in the future.

Recommendation 9: Donors, investors, and agribusinesses should actively engage with governments and other key legal and regulatory stakeholders to ensure that laws and policies are in place which facilitate the creation of opportunities for decent work. In particular, it will be important to work through private sector and civil society associations which represent the interests of smallholder farmers.

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1. Introduction

The Africa Enterprise Challenge Fund (AECF) is a US\$247m multi-donor fund providing grants and non-recourse loans to over 250 businesses focused on agriculture, renewable energy and adaptation to climate change, and access to information and financial services. By financing innovative and commercially sustainable business ideas, the AECF aims to improve the way agricultural market systems work and facilitate market entry for poor rural households and enterprises across sub-Saharan Africa.

This paper assesses how the AECF's portfolio of agribusiness projects has created opportunities for decent work for the AECF's target group: the rural poor, 60% of whom live on less than US\$2 a day. Its aim is to identify and disseminate key lessons to donors and development practitioners on how enterprise challenge funds and development programmes targeting market systems can create opportunities for decent work in the future. This research will also contribute to the design and management of future AECF competitions, with a view to maximising the Fund's contribution to addressing unemployment and underemployment.

The impact of the AECF is currently measured principally through the change in income for end beneficiaries, coupled with the number of people employed directly in the businesses it funds and associated wage bill. To date there has been limited analysis of the quality of the employment created or how improved income for men and women can turn under-employment into a decent job as move themselves and their families out of poverty. This paper acknowledges that tackling both unemployment and underemployment lies at the centre of sustainable development, and understanding how AECF grantees have stimulated the creation of decent work opportunities generates an additional dimension through which we can evaluate and learn from the AECF's impact. Furthermore, the importance of creating more decent working opportunities within the agricultural sector, in light of Sub-Saharan Africa's rapid population growth, has become increasingly clear. However, our understanding of how private-sector led initiatives can affect work within agriculture, including from a gender perspective, is more limited. This paper helps to fill that research gap by providing an overview of how AECF-funded grantees have catalysed the creation of decent work opportunities, both directly and indirectly.

Various approaches have been employed in evaluating the impact AECF projects have had on the creation of opportunities for decent work. **Chapter Two** provides a review of why creating these opportunities is one of the

most significant challenges facing Sub-Saharan Africa today, and an explanation of the theory and empirical evidence as to why many jobs must be created within the agricultural sector. It concludes by operationalising the concept of decent work with which we will assess the impact of the AECF's agribusiness projects.

Chapter Three examines the number and quality of formal jobs, where possible disaggregated by gender and youth, directly created within projects in the entire AECF agribusiness portfolio. Comparisons are made between projects in different agribusiness subsectors, by project age, geography and where the project is located within the market system in which it operates.

Chapter Four provides case based evidence for some of the different ways in which AECF funded projects have created opportunities for productive employment or helped the underemployed rural poor increase their productivity and incomes. We look with particular interest at projects which have created opportunities for women and marginalised groups.

Chapter Five consists of a market systems analysis of three AECF projects in order to estimate the degree of indirect job creation as a result of the AECF funding. While credibly estimating the total number of indirect jobs created by the entire portfolio of AECF agribusiness projects is out of the scope of this paper, this chapter gives an indication of the potential for indirect job creation when investing in innovative businesses which develop agricultural market systems.

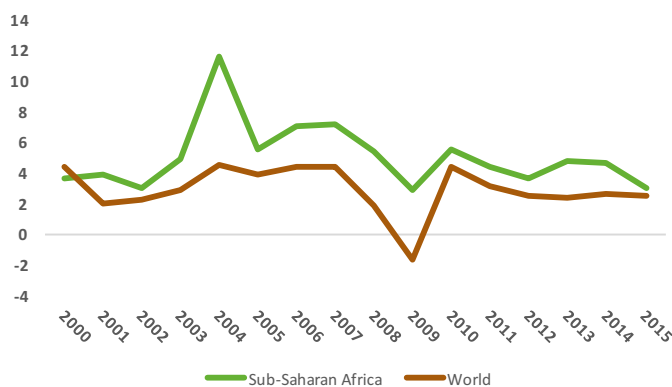
Finally, **Chapter Six** outlines our key conclusions and recommendations for other investors and donors seeking to create opportunities for decent work in sub-Saharan Africa's agricultural sector.

2. Decent work - the challenge and the AECF context

Sub-Saharan Africa's decent work challenge

After decades of below-average GDP growth, sub-Saharan Africa has consistently grown faster than the rest of the world during the last 15 years. Yet, whilst the share of the population living in extreme poverty - those living on less than US\$2 a day - is falling, the absolute number of people living in extreme poverty is rising³. This contrast between rising economic growth and a growing population living below the poverty line suggests that sub-Saharan Africa's economic growth is not delivering enough for those at the bottom of the pyramid.

Figure 1: Annual GDP Growth (%)

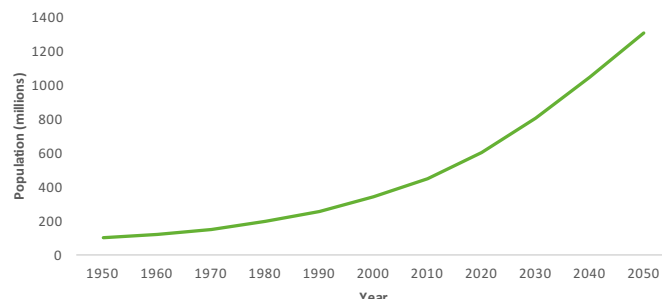


Source: World Bank Database

These challenges are exacerbated by sub-Saharan Africa's (SSA) demographics. Since the AECF's inception in 2008, the population of sub-Saharan Africa has grown by almost 200 million to almost 1 billion⁴. By 2050, the UN predicts it will have more than doubled to reach 2 billion⁵. This growth presents a great challenge, yet also an immense opportunity. Exponential population growth in other countries has led to a 'demographic dividend' as the expanding supply of labour drives the economy. Indeed, previous estimates suggest that a third of the economic growth of the 'East Asian Miracle' could be attributed to an increase in the labour pool⁶.

Yet to benefit from this increase in labour supply, there will need to be a concomitant increase in demand for labour. The World Bank estimates that the number of employment opportunities in SSA needs to be growing by 2.5% annually – or 8 million a year - to provide enough productive employment for the growing population⁷.

Figure 2: Sub-Saharan Africa Working Age Population (15-64)



Source: United Nations Population Division Database

What is decent work?

Decent work has been placed at the heart of the Sustainable Development Goals, with the Decent Work Agenda a core part of development thinking. There are two definitions of decent work. The United Nations Economic and Social Council has defined decent work as employment that “respects the fundamental rights of the human person as well as the rights of workers in terms of conditions of work safety and remuneration...respect for the physical and mental integrity of the worker in the exercise of her/his employment”. The International Labour Organisation (ILO) defines decent work as “opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men”, which is the principal definition in-use.

Without a focus on decent work for those at the bottom of the pyramid, the number of men, women and children living in extreme poverty will continue to rise.

Underemployment, defined by DFID as regular employment earning income below subsistence levels, is particularly important within the Sub-Saharan African context. The current problem is not a large unemployed population, but rather a large working population of people who are engaged in work with very low levels of productivity, often in the informal sector or as self-employed agricultural workers. The creation of opportunities for decent work should focus not just on the creation of new working opportunities, but also on raising the productivity and quality of existing work.

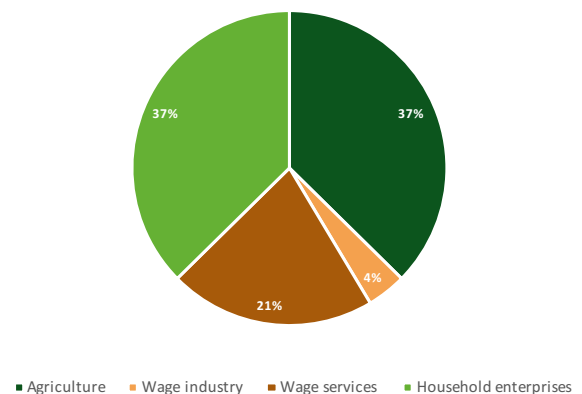
Productive, or decent, work with a fair wage, in a secure environment is also critical in lifting people out of poverty. The World Bank has described jobs as “the most important determinants of living standards”⁸, whilst for the UNDP they are “critical for equitable economic growth, poverty reduction and gender equality”⁹. The empirical foundation for the importance of decent work for individuals escaping poverty is well-grounded, with examples from countries as diverse as Canada, Ecuador, Germany, and South Africa¹⁰. More opportunities for decent work need to be created in Sub-Saharan Africa, both to match the increase in the population and to help lift the large pre-existing population out of poverty.

Without a focus on decent work for those at the bottom of the pyramid, the number of men, women and children living in extreme poverty will continue to rise. Furthermore, the lack of opportunities relative to the population can sow discord and unrest, especially in states with large youth populations. In extreme cases, this can increase the risk of armed conflict and lead to threats against the state¹¹. These opportunities will need to be created in areas accessible to those at the bottom of the pyramid – of which agriculture is predominant.

Improving agricultural productivity will create opportunities for decent work

Agriculture currently provides work to over 60% of SSA's labour force¹². Although this percentage is declining, the absolute number of Africans employed (including self-employment) in agriculture will continue to grow. Of the 170 million Africans entering the workforce from 2010-2020, almost 40% will be engaged within the agricultural sector¹³.

Figure 3: Workforce entrants in sub-Saharan Africa, 2010-2020

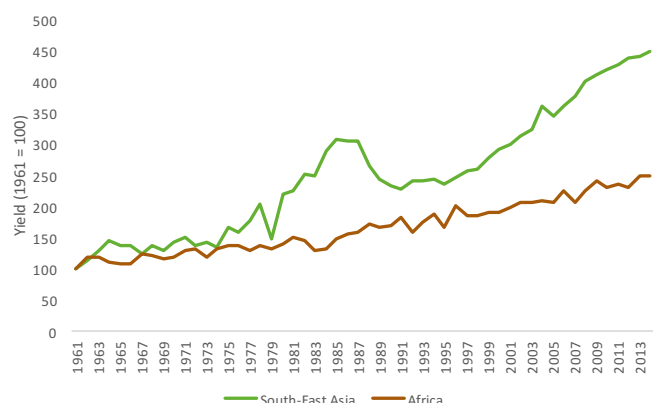


Source: Fox et al (2013), 'Africa's Got Work to Do: Employment Prospects in the New Century', pg. 15

Despite this, “current agricultural programs deliver too little, too slowly, to meet the needs of Africa's young people”¹⁴. Work within the agricultural sector is neither being created fast enough, and nor is it good enough. Many of the working opportunities within agriculture are not productive enough to offer people a sustainable route out of poverty. This is not for lack of potential. As the World Bank has noted, “agriculture can and should be a sector of opportunity for Sub-Saharan Africa's youth”¹⁵. The African agricultural sector could both significantly increase productivity as well as total area of arable land being farmed, boosting both the total number of jobs and average productivity.

Despite relative parity in 1960, crop yields in sub-Saharan Africa are today half that of those in Southeast and South Asia, and little over a quarter of yields in Latin America and the Caribbean¹⁶. Technological advances and improved farming practices developed during the ‘Green Revolution’ led to yields in Asia increasing by between 200% and 1000%¹⁷. In contrast, research into African crops has been limited compared to the substantial scientific investment into crops elsewhere. African farms also lack access to productivity-boosting capital equipment, fertiliser use is still sporadic and limited, and water resources are often severely constrained.

Figure 4: Yield of staple crops in South East Asia and Africa, 1961 – 2013



To unlock this potential, men and women engaged in agriculture across sub-Saharan Africa need access to quality inputs, including high-yielding and disease-free planting material, capital equipment and fertiliser. They also need training and education in order to maximise the utility of these inputs as well as access to finance to be able to purchase them. Understanding the context in terms of what barriers men and women face in accessing these elements is important, including the specific problems women face. Furthermore, building these value chains and education systems will be key determinants of whether sub-Saharan Africa’s agricultural sector can grow enough to provide jobs for Africa’s youth.

In the long run, however, improvements in productivity alone will not be sufficient to ensure that men and women in the agricultural sector are engaged in decent work. Between 2001 and 2013, agricultural output in North America grew by 1.05% per year, despite the agricultural labour force decreasing by 0.44% per year. Over the same time period agricultural output in Asia (excluding West Asia) grew by 3.43% per year, while its agricultural labour force shrank by 0.33% per year¹⁸. These figures demonstrate that advanced production techniques and technologies will eventually result in fewer farmers producing more agricultural products. It is therefore critical to create opportunities for decent work outside of agricultural production, in linked areas such as post-harvest processing, transportation, storage, and sales. However, it should be noted that sub-Saharan Africa is the

only region where both agricultural productivity and the total labour pool are rising simultaneously¹⁹, indicating that there is still significant scope for job creation and improvements in the quality of work in the area of production.

Investments in agriculture are particularly important for creating opportunities for decent work because agriculture is labour-intensive. Investor focus has often been on developing capital intensive sectors such as oil and gas or mining but these sectors are not nearly so labour-intensive as agriculture and do not have the same ratio of value-add to jobs-created²⁰. Furthermore, the value chains surrounding agriculture are also labour intensive, and therefore the spill over effects from agricultural investment can have significant consequences for overall job creation. This imbalanced focus on capital-intensive industries could help explain why Africa has been recording impressive economic growth, but not creating enough decent employment opportunities for those at the bottom of the pyramid. Finding a balance between investing in capital and labour intensive sectors of sub-Saharan economies, including in agriculture and agribusiness, will be critical in tackling unemployment and underemployment across the continent.

Investment in agricultural market systems to increasing opportunities for decent work

A market system is a “multi-function, multi-player arrangement comprising the core function of exchange by which goods and services are delivered and the supporting functions and rules which are performed and shaped by a variety of market players”²¹. Agricultural market systems include value chains, which ‘describes the full range of activities that are required to bring a product or service from conception, through the intermediary phases of production and delivery to final consumers and final disposal after use.’²² The term ‘value chain’ is typically used from a development perspective and views these activities as a means by which economic growth, job creation and poverty reduction can be catalysed. In contrast, a ‘supply chain’ usually looks at a similar set of activities from the perspective of a firm or a buyer²³.

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Linkages within market systems can be either vertical or horizontal. Vertical linkages transform and move a product or service toward the end market. In an agricultural value chain these actors will include suppliers, processors and distributors who add value to the agricultural product at each stage in the process. Horizontal linkages provide support services to core firms within a value chain. These include transport and logistics, financial services, business support services, research and training. Market systems, and the value chains that drive them, may also vary significantly in their scale and scope, and can be local, national, regional or international.

Smallholder farmers face a number of barriers to participate effectively in agricultural market systems, with women frequently facing additional barriers to men. Barriers for both include an inability to access finance, lack of storage and transport infrastructure, high transaction costs and stringent health and consumer standards (particularly in relation to export products). Smallholder farmers may also fail to get fair prices for their produce due to information asymmetries, dependence on traders and middlemen and lack of bargaining power.²⁴ Without financial reserves or a steady, reliable source of income - both of which are often beyond the preserve of smallholders - farmers are often forced to accept significant discounts or low prices to cover fallow periods. Women smallholders may face the additional burden of not owning their land, of having little voice in decisions or over when crops are sold and for how much or how resources and income is spent.

Integrating smallholder farmers and rural SMEs into agricultural market systems can help them increase their productivity and improve the quality of their produce, which in turn enables them to increase revenues and move out of poverty. Formalising the agricultural activities of smallholders (e.g. through official supply contracts) can also serve to shift the perception of their work from subsistence-focused to that of an enterprise, a key step on the pathway towards decent work.

Developing new or nascent agricultural markets in sub-Saharan African countries can also lead to the creation of formal value adding jobs in processing, distribution and marketing, as well as in the various industries which support the core market system. If investment is targeted at businesses which add value to agricultural commodities on the continent rather than exporting them in unprocessed form, there is an opportunity for development sector actors to ensure that jobs created not only pay above subsistence income but are secure and in working conditions that meet the ILO's criteria for decent work²⁵.

Donors and other development actors can develop market systems to create opportunities for decent work in a number of ways. Projects which aim to improve smallholder farmers' access to finance, information and training are crucial to facilitate the formation of viable farm enterprises and integration into market systems. Efforts need to be placed on understanding the specific constraints men and women face and the differences between them. Formal employment and job creation within companies can be enhanced through robust human resource policies that promote a secure work environment free from sexual harassment and which promote equal work for equal pay and equal promotion opportunities. At the policy level, an enabling business environment could be fostered through supporting governments in the development of credible institutions, regulations and norms. Finally, funds can be invested directly in innovative businesses which seek to undertake value-adding activities within agricultural market systems in the region rather than just exporting raw agricultural commodities. Over the last eight years the AECF has provided grants and loans to businesses which aim to do all of the above.

Operationalising decent work in the context of AECF agribusiness projects

The ILO defines 'decent work' as "opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity"²⁶. This definition implicitly makes decent work conditional on both payment and permanence, through the dimensions of productivity and security. The ILO's definition of decent work is overly ambitious considering the diverse employment and self-employment opportunities within African agriculture and agribusiness. Finding ways to operationalise decent work aspirations will be challenging particularly in relation to unionisation, comprehensive pensions and unemployment insurance, particularly in an environment where incomes are very low and profit margins are slim.

Figure 5: ILO Principles of Decent Work

ILO Principles of Decent Work	Practical example
1) Productive and delivering a fair income	<ul style="list-style-type: none"> • Income above the subsistence wage • Equal wages for equal work for men and women
2) Provides security for workers and social protection for workers and families	<ul style="list-style-type: none"> • Job security and permanence for workers • Pensions and insurance for workers and their families • Health and safety policies • Promotion of equal pay and opportunities • Policies to prevent sexual harassment and bullying
3) Offers prospects for personal development and encourages social integration	Possibilities of promotion and further professional training for men and women equally
4) Gives people the freedom to express their concerns, to organize, and to participate in decisions that affect their lives	Workers can unionize, and have representation in decision-making
5) Guarantees equal opportunities and equal treatment for all	Workers face no discrimination on the grounds of gender, ethnicity, religion and have the ability to balance work with family life
6) Working in conditions of freedom	Workers are not working under conditions of modern slavery or bonded labour, and are free to join worker organisations

Indeed, the ILO recognise the challenges of its ambitions and has itself limited its own definition; the Decent Work Tanzania profile explains that “the analysis that follows does not include the self-employed in agriculture, which make up 74.6% of the employed population”²⁷. Given that by the ILO’s own assessment this definition explicitly is not applicable to a large segment of beneficiaries targeted by the AECF, this paper does not adopt the full definition of decent work in its entirety.

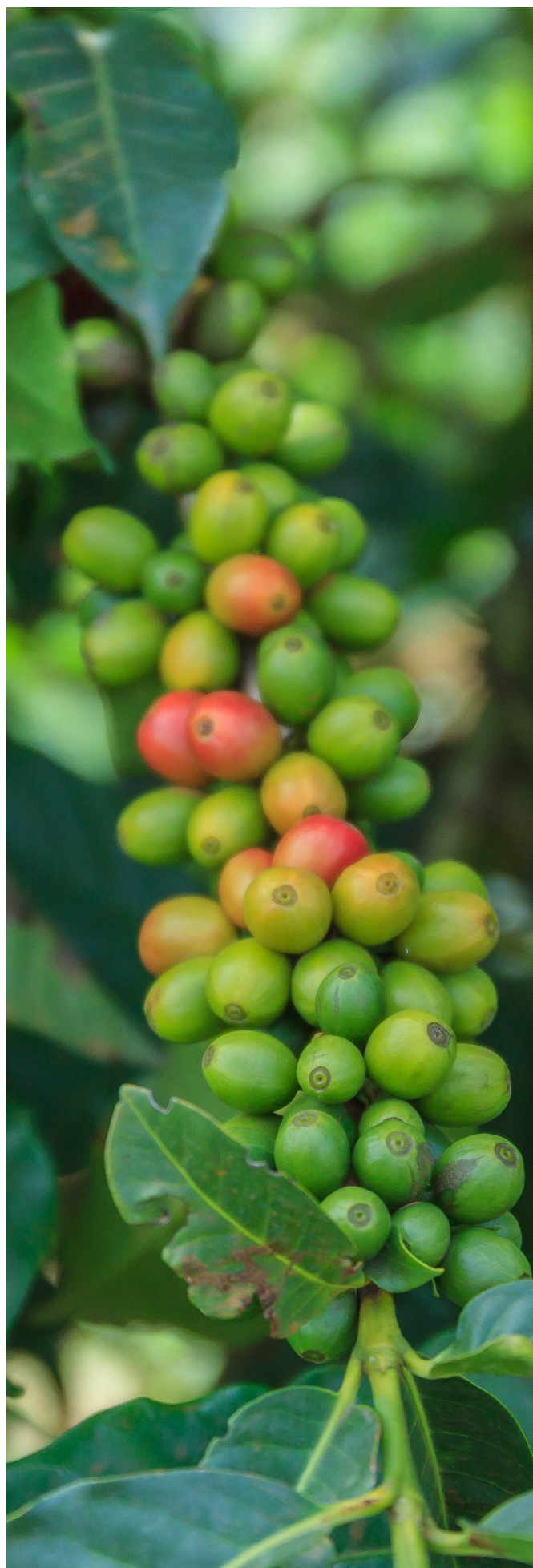
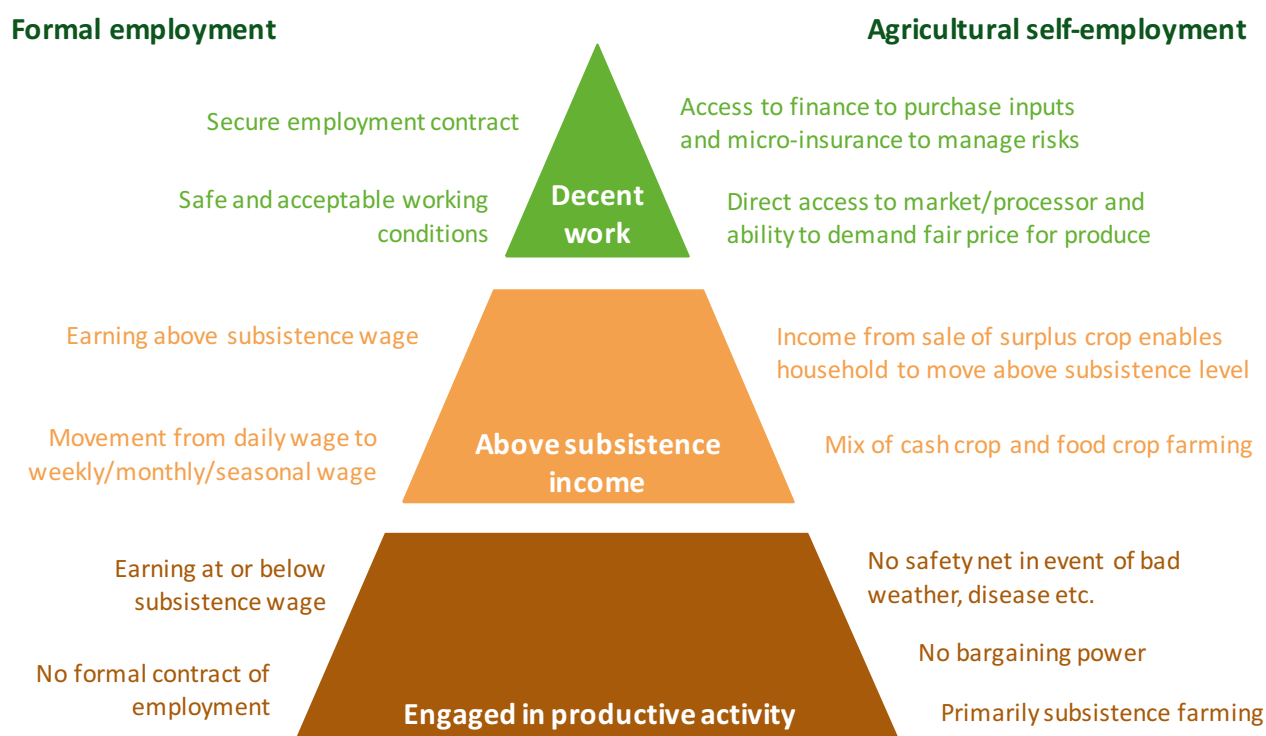


Figure 6: AECF framework for Decent Work analysis



Instead, we use a multi-tiered approach in defining decent work. This allows for a realistic analysis, recognising the variation in the type of employment and self-employment opportunities created by AECF projects. These include formal jobs created in AECF-funded businesses, self-employed smallholder farmers, and both formal and informal work along the value-chain.

The framework above the diagram draws on elements of the ILO definition of decent work and allows us to differentiate within different types of employment creation. It permits analysis of the benefit from increasing productivity and security for self-employed smallholder farmers, who form the bulk of the beneficiaries of AECF projects. However, it can also be applied to formal jobs within AECF funded businesses, allowing for some comparability.

The condition for entrance into the first tier of the pyramid is simply whether an individual or household is engaged in income generating activities. For entrance into the second tier we adopt DFID's first precondition of decent work - that an individual is earning above subsistence level income. To operationalise this threshold we have adopted World Bank poverty lines for AECF target countries at purchase-price-parity (PPP). Employment in the third tier is relatively permanent and secure, with members not at high risk of losing their means of generating income.

3. Formal job creation

An overview of formal job creation in the AECF's agribusiness portfolio

AECF funding to agribusiness projects has led to the creation of over 3,500 formal jobs²⁸ with a cumulative wage bill of US\$53m between 2008 and 2015. In 2015, the average annual wage bill for a job created in an AECF agribusiness project was US\$3,905. 61% of these formal jobs were taken by men, with 39% taken by women.

59% of the roles employed men and women under the age of 35, indicating that AECF funded agribusinesses were playing a role in generating productive employment for young people in the region. It is estimated that fewer than 15% of the jobs created were in managerial roles, this indicates that the operational staff in AECF-funded businesses are earning significantly more than the average for sub-Saharan African countries – a step towards decent work.



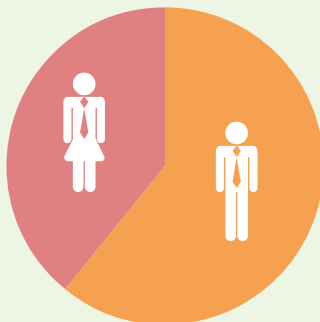
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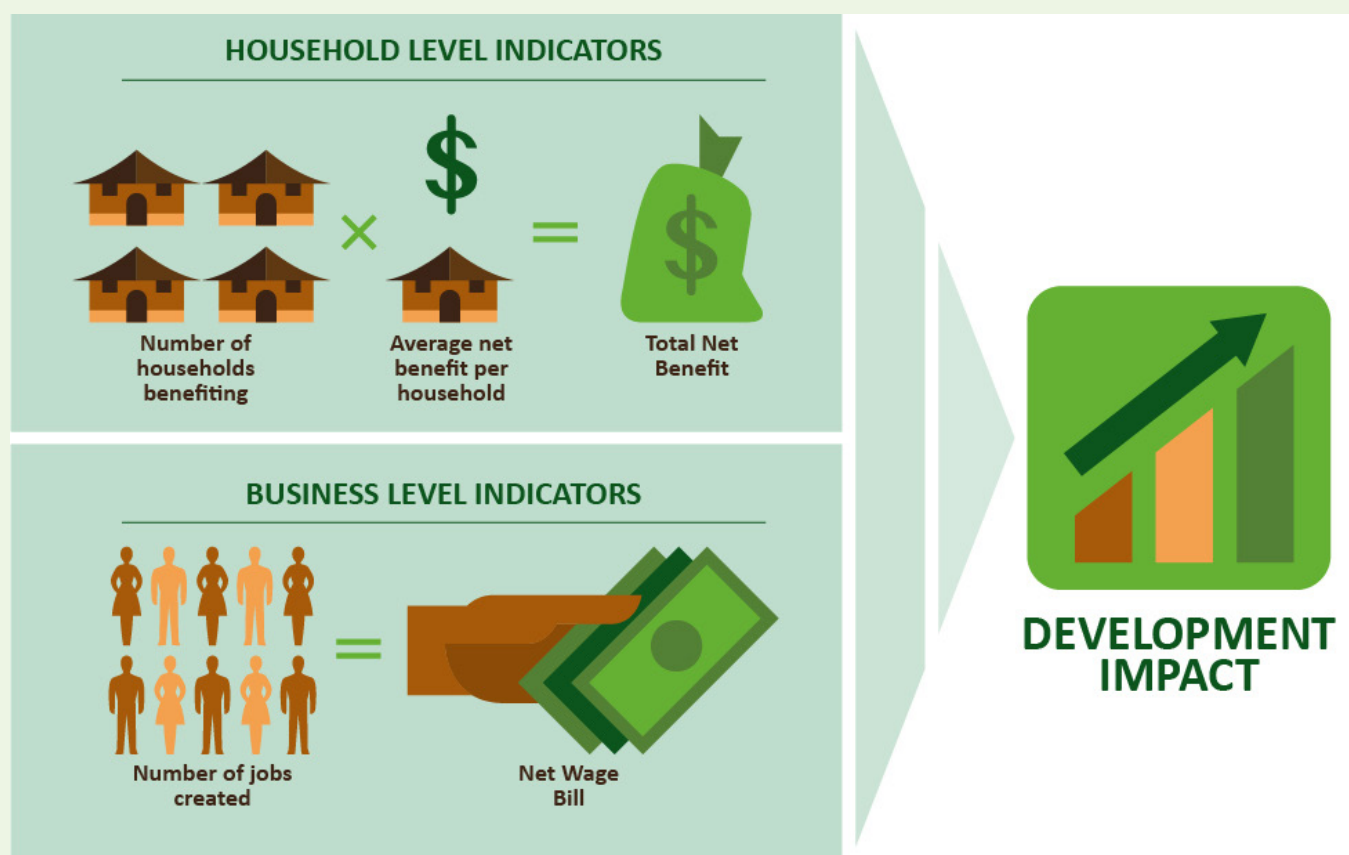
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How the AECF measures development impact

The total development impact of AECF funded agribusiness projects is composed of the total net benefit to smallholder households engaged with the project, and the total wage bill of direct employees. The total net benefit is calculated by quantifying the number of households directly benefitting from the project and multiplying it by the average net benefit per household. The average net benefit refers to the additional income or cost saving the smallholder household gets from engaging with the AECF project, less any additional (e.g. increased spend on inputs) or opportunity costs (e.g. income forgone from the alternative activity or switching crops). The net benefit per household is therefore a measure of the increased productivity of agricultural self-employment. The total wage bill is simply the total annual wage bill of all the additional jobs created in the AECF funded business. Indirect beneficiaries, including suppliers upstream and downstream the value chain, are not included.



What type of agribusiness projects create the most good quality formal jobs?

The AECF monitors the number of formal jobs created in businesses it funds, the percentage split of these jobs by gender and by age (over/under 35), and the average wage of formal jobs created. The aim of this section is to understand whether there are clear trends as to whether the quantity and quality of formal job creation varies by type of agribusiness project funded.

Our starting point was examining whether the different types of agribusiness funded by the AECF had varying impact with regards to job creation. Agribusiness projects are divided into four sub-sectors:

- **Input supply:** businesses which sell seed, animal feed, fertilizers, pesticides and other inputs to smallholder farmers for use in their agricultural production processes
- **Primary production:** commercial farms which have contracts or informal arrangements with smallholder farmers to purchase their agricultural products.
- **Agro-processing:** businesses which purchase agricultural products from smallholder farmers and add value to them through processing or manufacturing e.g. pulping fruit to make juice
- **Marketing and distribution:** businesses which purchase agricultural products from smallholder farmers and store, transport, distribute and export these products without transforming them

The key finding when assessing formal job creation in AECF funded agribusinesses by subsector is that input supply companies created significantly fewer formal jobs than businesses in the agro-processing, primary production and marketing and distribution, with only 43 additional jobs created on average. This is because input supply businesses are often less labour intensive and frequently rely on a wider network of independent agents, who are not formally contracted as part of the project, acting as distributors.

Also of significance is the fact that the average employee in businesses engaged in primary production earned approximately 29% less than average. This may be attributed to the fact that these jobs were not engaged in 'value-addition' to agricultural commodities, unlike the majority of formal jobs in companies engaged in agro-processing and marketing and distribution. Finally, the analysis showed that agro-processing businesses employed 25% fewer female employees than the average. This is likely to be because factory and processing jobs are typically done by men in many of the countries in which AECF funded businesses operate.

Figure 7: Jobs creation in AECF funded agribusinesses



Innovation and job creation

There also appeared to be a clear relationship between how innovative a project is and the scale of formal job creation. At the project selection stage, the AECF rates grantees on how innovative their business idea is, utilising a scale of 0-6. The analysis shows that the more innovative a business model, the fewer jobs created in the AECF funded project. This reflects how riskier ideas may lead to less immediate creation of formal jobs. New and innovative ideas start small, and thus employ fewer people. Tried-and-tested ideas, in comparison, can implement at scale. However, riskier or more innovative ideas may have greater potential for significant market systems change and thus indirect job creation at a larger scale, or could eventually lead to larger direct job creation albeit with a longer lead-time. There may therefore be a basic trade-off between funding disruptive ideas which could stimulate market systems development and funding projects which will lead to direct and immediate formal job creation, and this is an area which would benefit from further research.

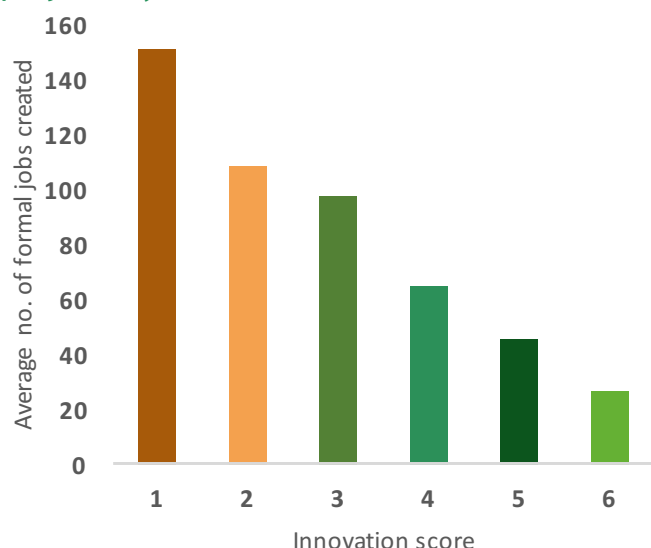
Innovation within the AECF

The AECF's objective is "funding innovation for business in Africa", and so selecting for innovation is a core part of the AECF project assessment process. Applicants are assigned a score along a 7-point ranking during the application process to reflect how innovative a project is. This score was used by the investment committee when making judgments about which project to fund, although the weighting applied varied by Funding Window. This framework is based upon the OECD's (2005) *The Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*.

Score	Description
0	Project is not considered innovative
1	Project is new for the company in the country of implementation
2	Project is new for the company in Africa
3	Project is new for the company globally
4	Project is new for the country in which it will take place
5	Project is new for the sector in Africa
6	Project is new globally (a world first)



Figure 8: Average formal jobs created in AECF projects by innovation score



Processing jobs in the Mount Kenya Gardens French bean factory

As part of their expansion into French bean processing, AECF funded business Mount Kenya Gardens have established a processing and packaging facility in Kenya's Export Processing Zone. Over 200 full time equivalent jobs have been created in the facility, ranging from those involved in the direct handling of French beans to laboratory technicians and floor managers. The average salary paid to employees in the factory is above the Kenyan minimum wage, and the company has passed several health and safety and food safety audits required by their customers in France and Germany. This indicates that value addition and links to export markets have enabled Mount Kenya Gardens to create a significant number of decent jobs, and this number will continue to increase as the company works to secure new customers in other European markets.

Figure 9: Average wage by region (US\$ per year)

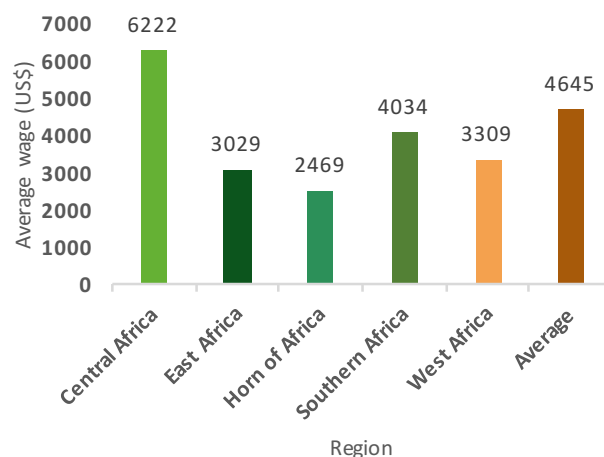
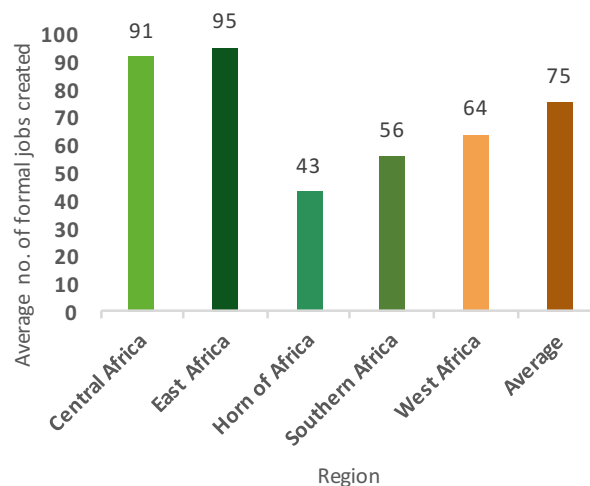


Figure 10: Average formal jobs created in AECF projects by region



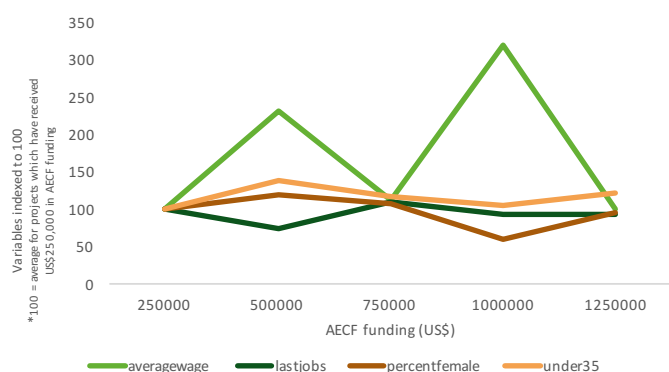
Amount of AECF funding and job creation

Interestingly, there were no significant trends associated with formal job creation when projects were analysed by the amount of AECF funding they received. An initial hypothesis may have been that larger grants would have stimulated greater job creation due to project scale, yet that does not appear to have happened. This finding could suggest that larger grants were used primarily for capex investments, rather than to pay for a large expansion of the workforce. Such a conclusion would not be surprising, given that the primary constraint for agricultural businesses in Africa tends to be capital rather than labour. There are two outliers with regards to the average wage, but given the lack of any trend on that variable it is hard to determine any true causal relationship.

Project location and job creation

There are significant geographical disparities between both average number of formal jobs created in AECF funded businesses and the average wages received by employees doing these jobs. Perhaps unsurprisingly, projects in the Horn of Africa had the lowest average salary, reflecting the region's lack of economic development. Job creation was also lowest in the Horn of Africa and Southern Africa. This result could also be attributed to the respective differences between these two geographic regions and the rest of Africa; in both the Horn of Africa and in Southern Africa, where the bulk of AECF projects are in Zimbabwe and Mozambique, the institutional framework for formal job creation may not be sufficiently developed. The challenging political and economic environments in these regions has also acted as a deterrent on formalised job creation.

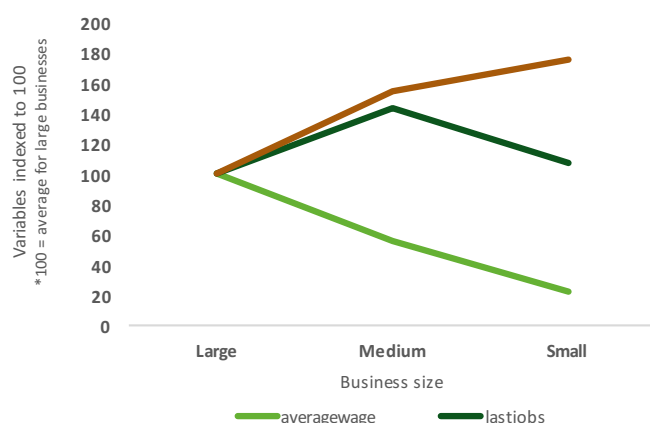
Figure 11: Characteristics of jobs created by amount of AECF funding



Business size and job creation

The size of the grantee's business also had an impact on certain aspects of job creation. Although there was no clear relationship between the size of the AECF funded business and the total number of formal jobs created, there was a clear relationship between the size of the business and both the average wage and the percentage of jobs secured by female employees. The larger a company was, the higher the average wage, and the smaller the percentage of women as part of the total workforce. These two characteristics could be related, given the wage disparity between men and women in the region. However, the decline in the female proportion of the workforce cannot alone explain the rather large disparity between the average wage at small and large companies. Further qualitative research is required to understand what drives wage differentials between different agribusinesses, and whether the size of an agribusiness has an impact on the number of female employees when all other factors are held constant.

Figure 12: Characteristics of jobs created by amount of AECF funding



Understanding which types of agribusiness are the most labour-intensive, and how job creation can vary in different geographic and institutional contexts, will help businesses, development practitioners and donors to maximise the creation of good quality agricultural jobs for both men and women.

Summary

There are some clear variables which partially determine the scale of formal job creation, as well as the average wage and the youth and gender disaggregation. Understanding which types of agribusiness are the most labour-intensive, and how job creation can vary in different geographic and institutional contexts, will help businesses, development practitioners and donors to maximise the creation of good quality agricultural jobs for both men and women. The relationship between innovation and job creation is also worth exploring more rigorously and using a larger dataset, to see whether the link found here between more innovative (and presumably riskier) projects and less job creation in the short run holds.

It is worth reiterating that in the AECF context formal job creation is one component of a project's overall impact on the creation of decent working opportunities. Projects may lead to significant formal or informal work creation through either wider market systems development or through indirect effects along horizontal or vertical value chains, as this paper explores in Chapter 5. Alternatively, AECF grantees may have had a significant impact on the creation of decent work opportunities for self-employed project beneficiaries through increasing their knowledge, agricultural productivity and incomes. This paper explores this mechanism next, using a series of case studies of AECF projects.

4: Tackling smallholder farmer underemployment through improved agricultural productivity

The main avenue through which AECF-funded businesses have increased opportunities for decent work for men and women is not through those directly employed within projects, but rather through how those projects have affected the quality and amount of work for the self-employed smallholder farmers they work with. In 2015 alone, AECF agribusiness projects reached over 916,000 smallholder farming households, increasing their incomes by an average of US\$102 a year. Between 2008 and 2015, the Fund's agribusiness projects have delivered a total of US\$305m extra income to smallholder households in sub-Saharan Africa. It should be noted that since the household is the unit of analysis, it is challenging to disaggregate this benefit between male and female household members. However, a mixture of grantee self-reporting and site visits are used to

The AECF – more than an agricultural fund

The AECF has also targeted rural consumers through funding innovative business ideas key sectors such as financial services, information and media, and renewable energy. Active AECF-funded projects in these sectors reached 1.2m households in 2015, generating a total net benefit to beneficiaries of US\$59.5m. In these sectors the average number of households per project is much higher than agribusinesses (6,743 households per agribusinesses project compared to 32,497 per non-agribusiness projects in 2015), whilst the average household benefits are much lower (US\$239 for agribusiness projects compared to US\$56 for non-agribusiness projects).

produce qualitative insights into specific ways that AECF funded agribusinesses benefit women and men in different ways.

AECF-funded projects have improved the quality and amount of work for smallholder farmers through seven key mechanisms:

- Increasing smallholder productivity through high-quality inputs
- Strengthening agricultural value chains
- Building links to export markets
- Expanding women's opportunities for decent agricultural work

- Bundling packages of services and inputs to expand access to new products
- Reducing smallholder risk
- Training and agronomic education

In the sections below, each of these mechanisms is expanded and brought to life using case studies drawn from the AECF's agribusiness portfolio. The case studies are analysed using the methodological framework introduced in Chapter 1, with a clear distinction between formal jobs created within the project and the impact on self-employed agricultural work conducted by smallholder farmers engaged with projects. It is also important to note that these mechanisms are not exclusive; projects can improve the quality of work for their smallholder producers through several of these factors simultaneously. Outgrower schemes, for instance, can provide high-quality inputs, training, help reduce smallholder risk, build links to export markets, and invest in agricultural value chains. One potential future research question is whether companies or development organisations have more success targeting and specialising in one mechanism, or whether companies should take a more comprehensive approach (for further analysis in this direction, please see the AECF Learning Paper Maximizing the impact of outgrower schemes: opportunities, challenges and lessons from the AECF).

Increasing smallholder productivity through high-quality inputs

Smallholder farmers in Sub-Saharan Africa lack high-quality inputs which are appropriate for the varied climatic zones within the region, and women are often worse off than men in this regard. Inputs normally refer to seeds, fertilisers, agro-chemicals (mainly pesticides), feed (for livestock), farm machinery and irrigation. In Kenya, which has the highest adoption rate for fertiliser in East Africa, 60% of livestock and crop inputs are reported to be sub-standard²⁹. The consequence of using sub-standard inputs is that agricultural yields in sub-Saharan have lagged behind the rest of the world during the last 50 years.

Improving productivity can have a marked impact on household income, and help ensure smallholder farmers' incomes are above subsistence levels, moving farmers up from the first to second tier in the decent work pyramid. Furthermore, some inputs also increase agricultural

resilience and thereby reduce smallholder risk. For example, using drought-resistant seeds can help smallholder farmers maintain their output and incomes through drier spells. If these significantly increase productivity and reduce smallholder risk this could imply a movement from the first to the third tier on the decent work pyramid.

Understanding agricultural resilience

The Department for International Development (DFID) defines resilience as “The ability of countries and communities to manage change, by maintaining or transforming living standards in the face of shocks or stresses – such as earthquakes, drought, or violent conflict without compromising their long-term prospects”. Agricultural resilience is the extent to which smallholder farmers and rural communities can cope with exogenous shocks which have a negative impact on agricultural output and income.

Source: DFID (2011). Defining Disaster Resilience: A DFID Approach Paper

The AECF has funded various input-supply companies which support smallholders and operate within different geographical and agricultural contexts. However, there are some common challenges worth highlighting. The first problem for any input supply company is mastering the technology required to develop and produce an input adapted to the habitat of the target population. This often involves partnering with both institutions abroad and local research institutes. Secondly, companies need to build distribution channels to sell their products to smallholder farmers. Resolving this problem often requires reaching into new and remote areas, building new relationships with agent networks or agro-distributors, and developing inputs into smaller packages accessible to smallholder farmers while remaining profitable. Finally, input-supply companies face a considerable challenge in marketing their products. Farmers are often wary of committing capital to a new input, given their limited financial reserves if the input doesn't deliver the expected return. Companies often have to invest in extensive marketing and educational campaigns and persuade farmers about the benefits of their products. This ranges from traditional advertising campaigns using radio and print advertising, to running agronomy programmes physically showcasing how high-quality inputs can boost yield.

The latter two challenges create incentives for input supply companies to focus on medium and large scale producers and to ignore smallholder farmers. Persuading input supply companies to expand to smallholder farmers and facilitate an improvement in their productivity and incomes therefore

often requires an enabling policy environment or subsidy scheme.

Case Study: Kenya Highland Seeds

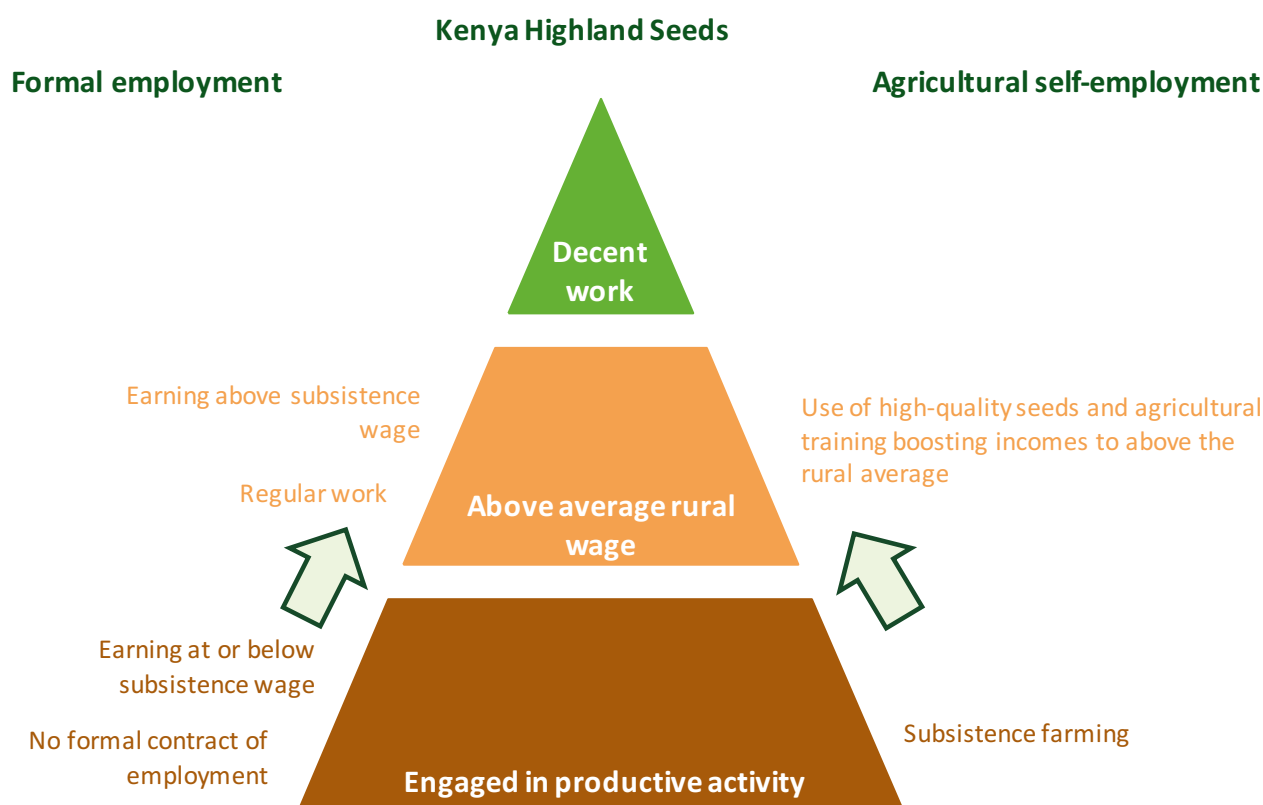
Kenya Highland Seeds has an extensive history in supplying high-yielding, hybrid seeds to commercial farms in East Africa. With the funding they received from the AECF, the company started marketing and selling these seeds to smallholder farmers for the first time. They committed to a large-scale marketing programme involving the use of demonstration plots and agricultural training, including building basic greenhouses and drip-feed irrigation systems. For the agricultural training, the company partnered with local firms in each county to benefit from local knowledge and language and the skill-set of companies focused on education. Kenya Highland Seeds also reduced the size of the minimum pack size available in the market from the equivalent of US\$100 to US\$10, making them more accessible to smallholder farmers.

The combination of demonstration plots, free agricultural training and small purchase sizes has proven very successful – in 2015, Kenya Highland Seeds sold seed to approximately 40,000 smallholder farming households. The key to reaching so many farmers was the company's use of demonstration plot open days, which in the initial pilot were attended by 750 farmers each.

Through the use of high-yielding seeds and, to a lesser extent, the adoption of greenhouses and drip-feed irrigation systems, the average net benefit per household benefit was US\$412 in 2015. This increase suggests a significant boost in farmer productivity through inputs and irrigation. On average, smallholder farmers' gross margin from producing onions increased from US\$42 to US\$227 per household per year, whilst profits for tomato farmers increased by over US\$1,500 per household per year. This increase in productivity translated into farm revenues increasing by 180%, indicating the positive consequences for opportunities for decent work for smallholder households engaged with the project. The project has also directly created 233 jobs, primarily in marketing and distribution, of which 101 are women.

Kenya Highland Seeds demonstrates the enormous potential that improved agricultural inputs combined with training and investments in infrastructure can have on increasing smallholder productivity and consequently raising living standards. The challenge, however, is replicating this across a range of food crops at large scale. This will require innovations and training which take into account the specific problems associated with each crop and region in which they are being farmed.

Figure 13: Kenya Highland Seeds' role in creating opportunities for decent work



Kenya Highland Seeds demonstrates the enormous potential that improved agricultural inputs combined with training and investments in infrastructure can have on increasing smallholder productivity and consequently raising living standards.

Strengthening agricultural value chains

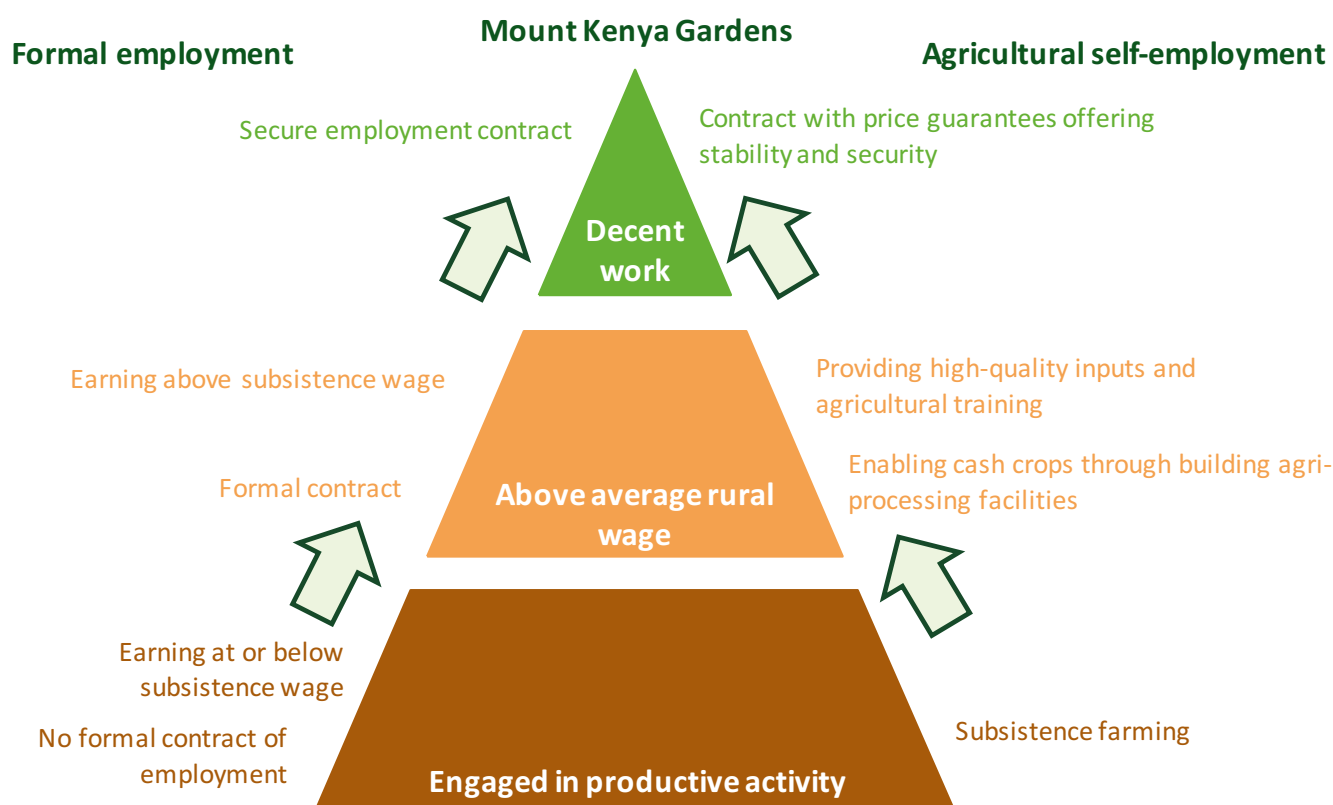
Investment to strengthen agricultural value chains has an impact on decent work through two distinct mechanisms. Firstly, investments in processing and value-adding activities can stimulate significant formal job creation. Secondly, investments within the value chain creates a larger market for cash crops as more local, national or regional processing capacity becomes available. This can induce a shift in the behaviour of smallholder farmers to grow more cash crops

compared to staples. Cash crops attract significantly higher prices than staples and thus can have a major positive impact on household income, helping to raise smallholder farmers from the first to second tiers of the decent work pyramid.

It should be noted, however, that transitioning from staple to cash crops can have negative effects on smallholder farming households. Producing cash crop only can leave smallholders exposed to fluctuating commodity prices, with the potential to exacerbate household poverty and malnutrition. There is also a gender element which needs to be considered, as the farming of staple crops is often associated with women while the gains from cash crops often disproportionately accrue to men. Growing a combination of traditional staples with cash crops can therefore provide food security while still increasing the earning potential of farmers in an equitable way. Through diversifying production, even smallholder farmers not growing cash crops can benefit, as the price of staples increase through declining local supply.

Investments within the agricultural value chain can take different forms. One particular example – building links to export markets – is discussed separately due to its importance as a mechanism in affecting the quality of work in rural regions. Other examples could include building processing plants to add value to agricultural produce in-country, or developing certification schemes to attract higher prices.

Figure 14: Mount Kenya Gardens' role in creating opportunities for decent work



Case Study: Mount Kenya Gardens

Mount Kenya Gardens has successfully implemented an outgrower model focused on bananas, papayas, and French beans in Kenya. Outgrowers are smallholder farmers who are trained in good farming practices by Mount Kenya Gardens, and are supplied with high-quality seeds and other pre-financed farming inputs. The combination of farmer training and access to high-quality inputs has significantly increased productivity, with farmers reporting an average household benefit of US\$1,700 in 2015. Furthermore, Mount Kenya Gardens buys French beans at a guaranteed price, offering smallholder farmers some protection from fluctuating market prices and saving them time negotiating sales.

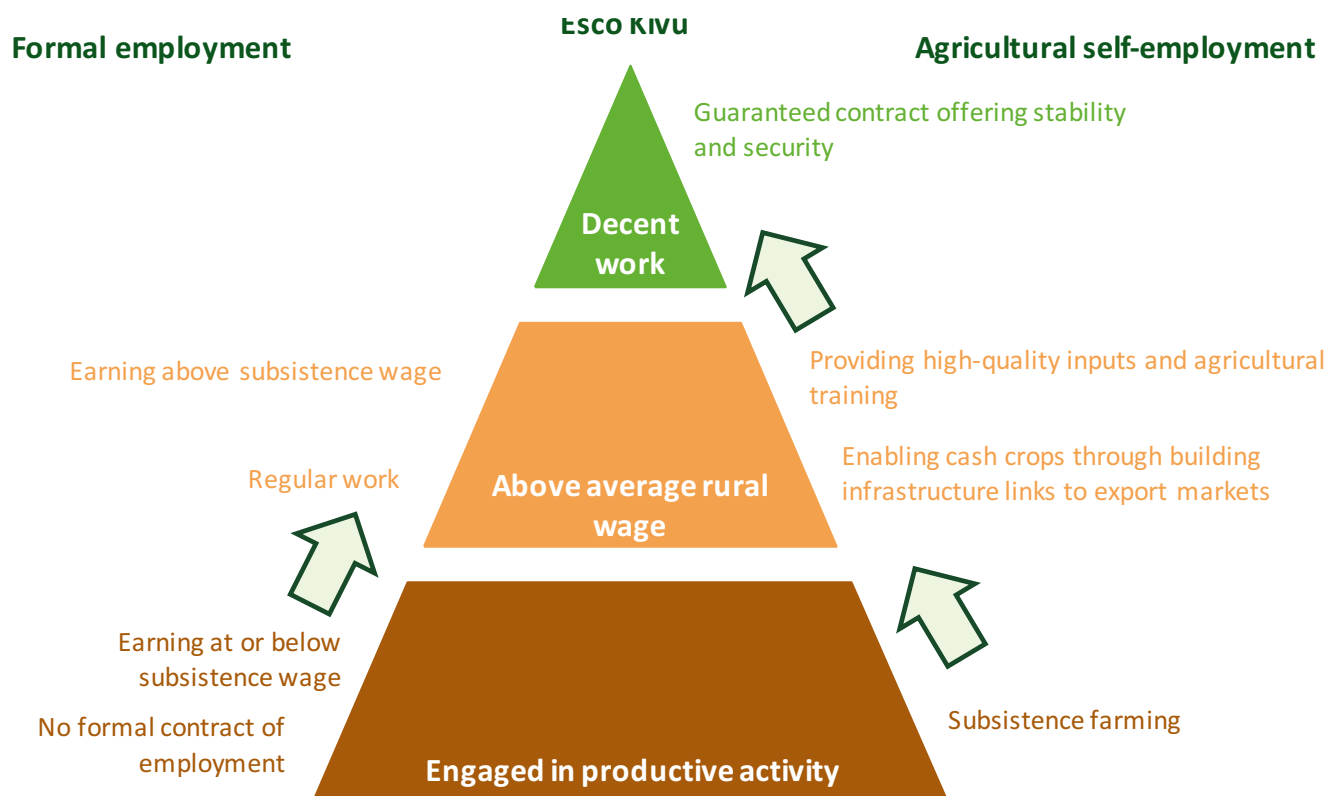
For the company, the guarantee that they will be able to purchase high-quality agricultural produce has enabled them to invest in a French bean processing factory. The company has secured contracts to supply European supermarkets with the processed French beans to the European market. This has created over 200 formal jobs, many of which are in the processing factory itself, and has given Mount Kenya Gardens the financial stability to invest further in their outgrower network. The company plans to expand into processing mangoes into high-quality juices in the future, suggesting that there is considerable scope for further investment into agro-processing and value adding activity within Kenya.

Building links to export markets

A key problem faced by many smallholder farmers is that there is no viable route to export markets for their products. Without this, smallholder farmers cannot grow cash crops as domestic markets are too small and underdeveloped. Cash crops grown for export command significantly higher prices than staple food crops, and can thereby have a major impact on household income. Transitioning from staples to cash crops can shift smallholder farmers from the first to second tier of the decent work pyramid. This is constrained by the lack of appropriate infrastructure – either the transport networks for moving large quantities of agricultural products do not exist, or the storage facilities for perishable agricultural produce are not efficient enough or difficult for smallholder farmers to access.

Building links to export markets has three key components: transportation infrastructure, storage infrastructure, and international partnerships. The first can require commitment from government to invest in public goods and transportation networks, or of structuring a private-partnership to pool risks, capital, and expertise. In cases where the state is absent or lacks capacity, there are examples of companies investing themselves in constructing roads, railways, and canals. However, this requires significant initial outlay and can create a perverse incentive for government not to invest in the future. From a company's perspective, transport infrastructure normally entails the acquisition of vehicles or freight rental to move goods

Figure 15: Esco Kivu's role in creating opportunities for decent work



to an export hub. Storage infrastructure can also imply a significant capital expenditure, particularly if goods are perishable. Finally, a company needs to be able to build partnerships with international companies overseas. All three of these components normally require a large national or multinational company, which will have the financial reserves, the cash-flow, and the track record to attract investment and to build partnerships abroad.

Case Study: Esco Kivu

With the help of AECF funding, Esco Kivu has invested significantly in developing the necessary infrastructure to enable outgrower farming for cocoa in rural areas in the east of the Democratic Republic of Congo (DRC). The company built collection centres to store cocoa ready for export, as well as roads and a processing factory to help facilitate the export process, taking the cocoa east through Uganda and Kenya to Mombasa rather than west through the challenging interior of DRC. Without these investments in basic infrastructure local smallholder farmers faced a very limited market for cocoa – despite its potential as a high-value cash crop – because there was no route to export markets.

Cocoa prices are significantly higher than the other crops grown in the region in which Esco Kivu operates. The transition of farmers from other crops to cocoa, enabled by the company, has therefore raised smallholder income substantially, by an estimated US\$444 per household

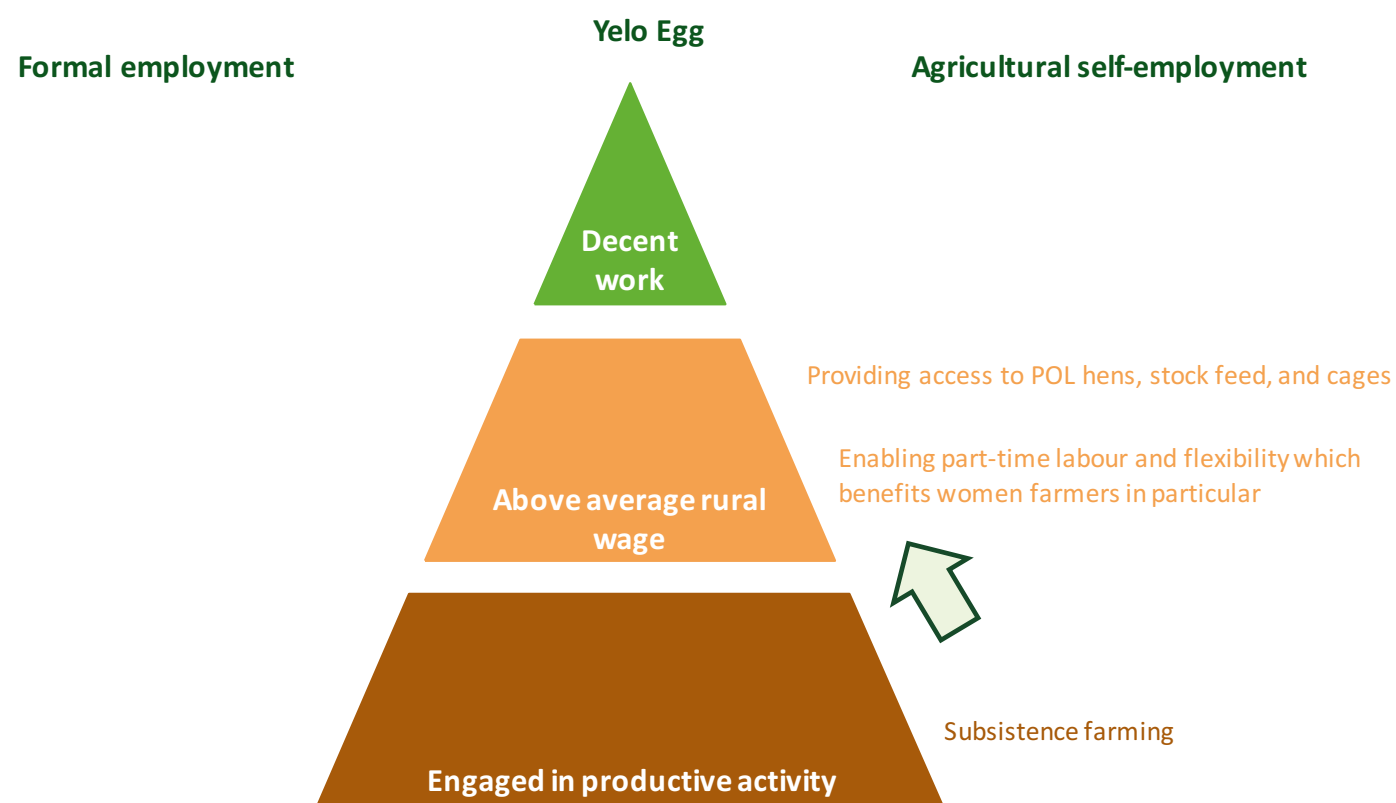
per year. Furthermore, Esco Kivu has also invested in agricultural training programmes and organic certification schemes, raising cocoa yields and prices. Farmers also have contracts with Esco Kivu, guaranteeing a measure of security and stability for smallholders while at the same discouraging side-selling and ensuring the company have a steady supply of cocoa. This increase in security and productivity implies a significant increase in quality of work. The company has hired nearly 100 men and women in transportation and product processing and storage, demonstrating a significant impact on formal job creation.

Expanding women's opportunities for decent agricultural work

Women make up just under 50% of the economically active population in agriculture in Sub-Saharan Africa, yet they earn between 13-25% less than their male counterparts³⁰. Women often have less access to inputs, are discriminated against in market transactions, are relied upon predominantly to grow staple crops rather than cash crops, and have less time to work in agriculture due to the unequal distribution of household tasks. As a recent World Bank report argued, “closing the gender gap could help reduce hunger and improve livelihoods for Africa’s growing population”³¹, highlighting the potential systemic impact of expanding women’s opportunities for decent work.

One avenue to improve women’s agricultural productivity

Figure 16: Yelo Egg's role in creating opportunities for decent work



and income is through introducing new methods of production or agricultural techniques which can be more easily combined with domestic work. This can significantly raise productivity for female agricultural workers, and therefore household income, whilst complying with pre-existing household arrangements. The case study below illustrates how a chicken-and-egg business can significantly increase women's self-employed agricultural income, and can be combined with domestic work.

Further research also needs to be done to understand the barriers women engaged in smallholder farming face, and the types of intervention which can increase their agency and access to productive resources such as land. For further analysis in this direction, please see the AECF Learning Paper on Women's economic empowerment in the AECF's agribusiness portfolio, which examines in greater detail how AECF agribusiness projects have impacted women relative to men. 90% of Yelo Egg's customers are women, reflecting how keeping egg-laying hens is a form of employment that is readily accessible to women and non-threatening to existing gender relations. The ability to work part-time can increase female financial independence and resilience, with an average household benefit of USD\$675 annually.

Case Study: Yelo Egg

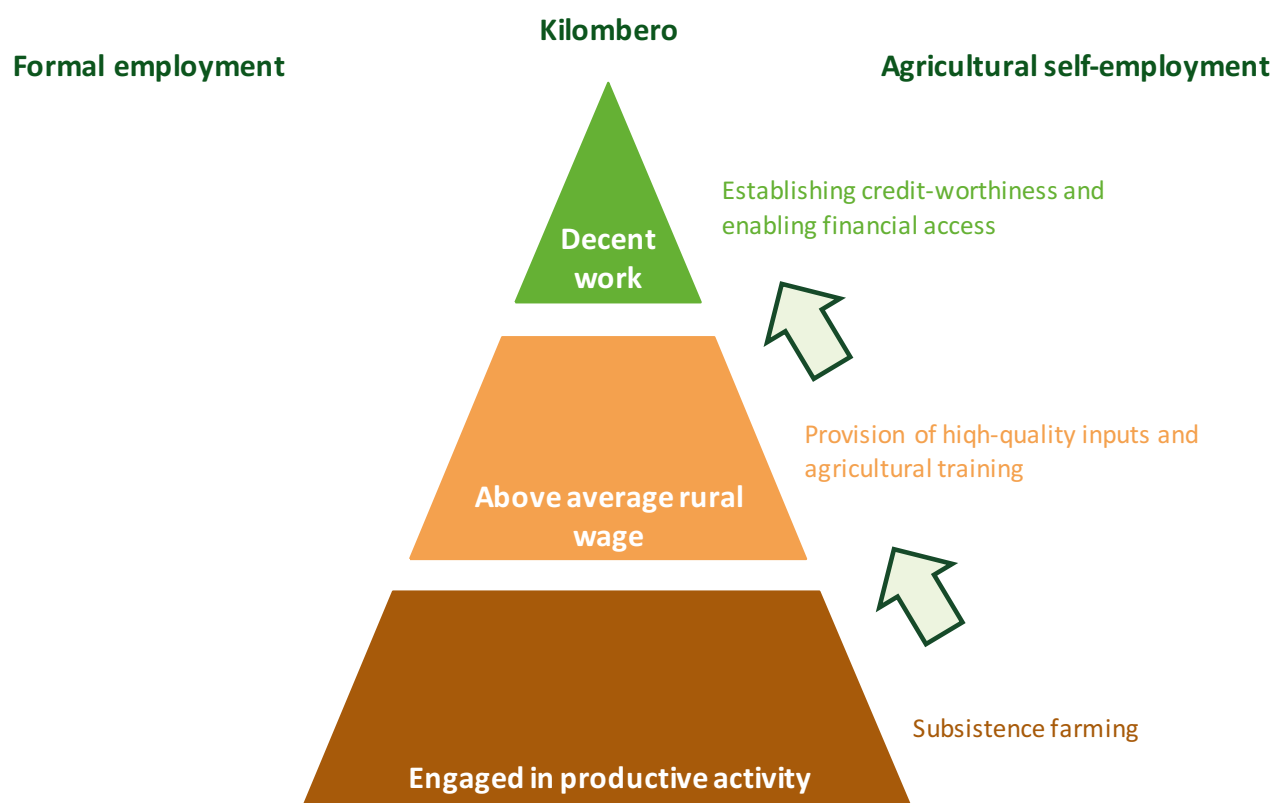
Yelo Egg has developed a model selling a combination of point of lay (POL) hens, cages, and stock feed to both rural and urban Zimbabweans. Although initially capital-

intensive (a starter pack of 48 egg-laying hens, cages, and feed can cost up to US\$500), egg-laying hens provide substantial income from relatively little labour input. The addition of cages, which increase efficiency through disease protection, and the implementation of a stock feed system also significantly raises the productivity of farmers already keeping hens.

Bundling packages of services and inputs to expand access to new products

Farmers in poorly connected and difficult to reach rural regions lack access to agricultural inputs, financial services, and agronomy training. This limits productivity and keeps farmers engaged in subsistence farming, on the first tier of the decent work pyramid. One potential solution is bundling products into a single, accessible package. Bundling has two significant benefits. Firstly, companies no longer have to build individual distribution channels and can instead utilise those that already exist, or share the cost of building distribution channels with other companies. Secondly, with respect to financial services, combining credit provision or micro-insurance with input supply or with agricultural product purchase agreements can help as a guarantee, increasing financial access and lowering interest rates for smallholder farmers. The combination of credit provision and micro-insurance can help move smallholder farmers from the first tier of the decent work pyramid to

Figure 17: Kilombero's role in creating opportunities for decent work



the third tier, by enabling them to invest in their farms and increase productivity, and by offering a measure of income and household security.

There are, however, two problems with bundling. First, it can shift companies out of their comfort zone as they offer new products or services, which could expose them to risk. This danger is particularly acute with regards to financial services and the extension of credit which, if poorly managed, can entail large losses. This problem can be mitigated by building a coalition of companies, each offering their own product through a single distribution channel. However, that implies an additional cost in building and maintaining a consortium of companies and can lead to coordination problems as the overall benefit will only be generated if all companies provide product.

Case Study: Kilombero

Kilombero operates an outgrower model for rice farmers in Tanzania. As well as purchasing rice from smallholder farmers, Kilombero also provides, in partnership with other companies, agricultural training, finance and high-quality agricultural inputs. Access to high-quality inputs and agricultural training offers farmers the potential to significantly increase their productivity. Guaranteed contracts gives smallholder farmers a base of security and income stability, whilst finance and microfinance enables farmers to invest in their farms and appropriately manage and control risks.

For smallholder farmers operating in hard-to-reach rural areas, the combination of services into a single access point can give them access to a whole new suite of products and services. Currently Kilombero works with over 3,000 farmers, who are receiving a net household benefit of US\$258 annually from switching to growing rice without inputs to growing rice with input provision, guaranteed purchase, and agricultural training. Furthermore, since farmers are borrowing and selling through the same company, they have an effective mechanism through which they can prove their credit-worthiness.

Reducing smallholder risk

A key component of moving from the second tier to the third tier of the decent work pyramid is ensuring security and stability of work. This is easier to conceptualise for formal jobs – security and stability of work implies contracts and some form of safety net in case of ill health or unemployment. With respect to agricultural self-employment, it is less clear what security and stability of work and income entails. Projects which reduce smallholder risk imply greater security and thus a shift up the decent work pyramid.

There are different mechanisms to reduce risk faced by smallholder farmers. Perhaps the most common is through micro-insurance, to cover unexpected falls in total harvest yield. Micro-insurance models, have, however, encountered some teething problems. Given their limited capital reserves, farmers are often wary of paying upfront for insurance schemes. Monitoring claims can be difficult and costly, due to the geographical dispersion and remoteness of smallholder farmers, as well as the relatively small sums involved. More sophisticated schemes link insurance pay-outs to weather data, yet that provides less of a safety net to farmers since weather trigger events and crop loss are not perfectly correlated. Farmers often see insurance schemes as a kind of investment and stop paying premiums when they do not receive pay outs.

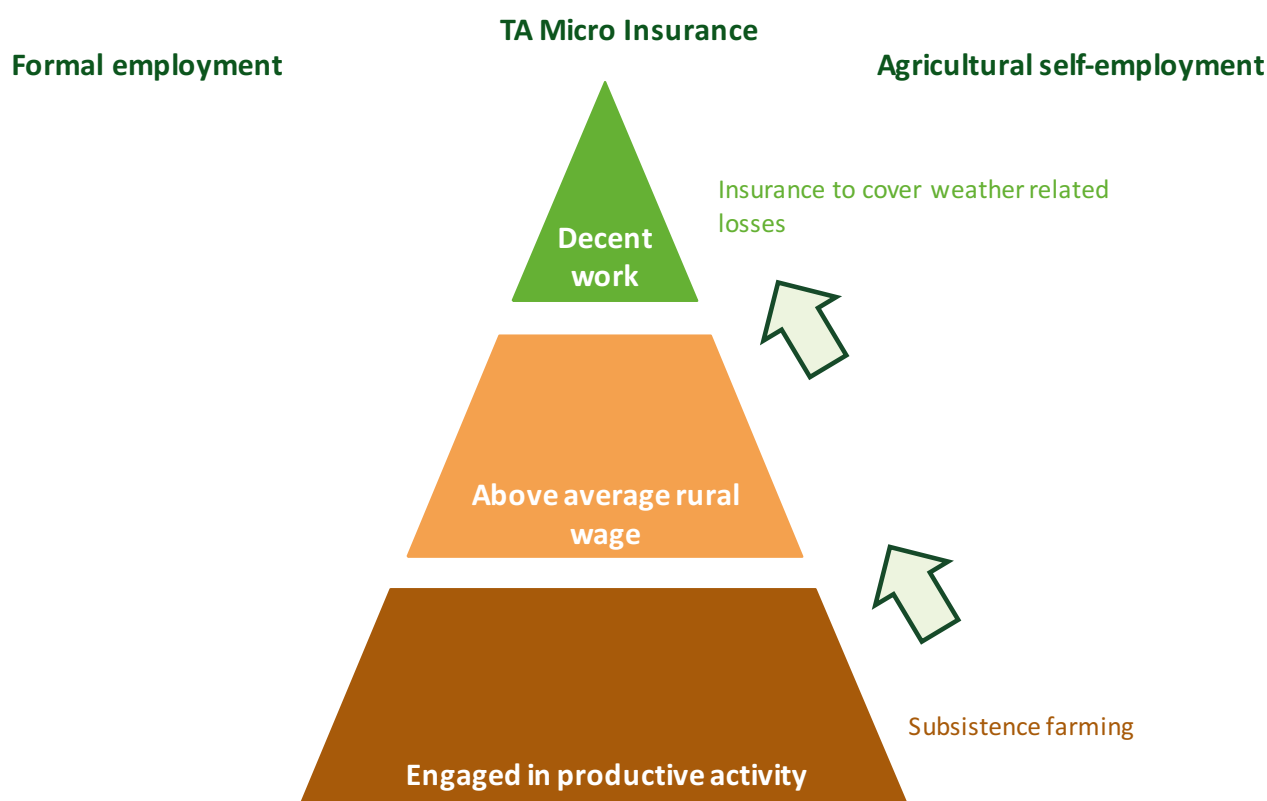
A key component of moving from the second tier to the third tier of the decent work pyramid is ensuring security and stability of work.

Other ways to target smallholder risk include input certification schemes and post-harvest storage projects. The reliability of high-quality inputs has been a major issue for smallholder farmers in Sub-Saharan Africa, as low-quality seeds or fertiliser are passed off as high-quality (and expensively priced) inputs. For example, in Uganda, counterfeiting affects 30-40% of purchased seed³², whilst in Kenya the Kenya Agricultural Research Institute has estimated that 40% of seed packets contain fake seeds³³. A similar problem exists for agro-chemicals, where previous estimates suggest that up to 30% of the market is composed of counterfeit goods³⁴. Buying counterfeit goods has two negative consequences – in the short-run yields are lower than expected and household income falls, whilst in the long-run smallholder farmers are deterred from using high-

quality inputs. Input certification schemes are designed to act as a barrier to counterfeiting. The most innovative consist of a 'scratch' pad which can be scratched off to reveal a number. Farmers can check that this number is valid using a mobile technology platform. This acts as a guarantee that their inputs are high-quality, greatly reducing the risk of a poor harvest.

The importance of appropriate post-harvest storage is also increasingly recognised. Without post-harvest storage, farmers have little control or power as to when they sell their produce. This greatly reduces their leverage in negotiations over price with agricultural purchasers. It also means they have little control over their cash flow during the year. Poor post-harvest storage also makes it harder for farmers to keep their crop for household consumption. In Mozambique, for example, up to 30% of smallholder produce is lost due to inadequate storage facilities³⁵. Providing appropriate post-harvest storage thus raises household incomes and can help reduce smallholder risk, moving farmers from the first to third tiers on the decent work pyramid.

Figure 18: TAMI's role in creating opportunities for decent work



Case Study: TA Micro Insurance

TA Micro Insurance (TAMI) offers weather-index linked micro-insurance to smallholder farmers in Zimbabwe. TAMI's insurance model is based on historical harvest and weather data to identify the relationship between the two and to pay out to farmers when the weather index suggests their harvest should struggle. The project ran into initial difficulties, with higher pay outs than initially predicted, highlighting the difficulty and inherent risk in constructing new and innovative insurance models. From a smallholder perspective, however, the insurance has offered them stable and predictable income through risk mitigation; even if their harvest fails, their insurance pay-out should ensure that costs for replacement inputs will be provided.

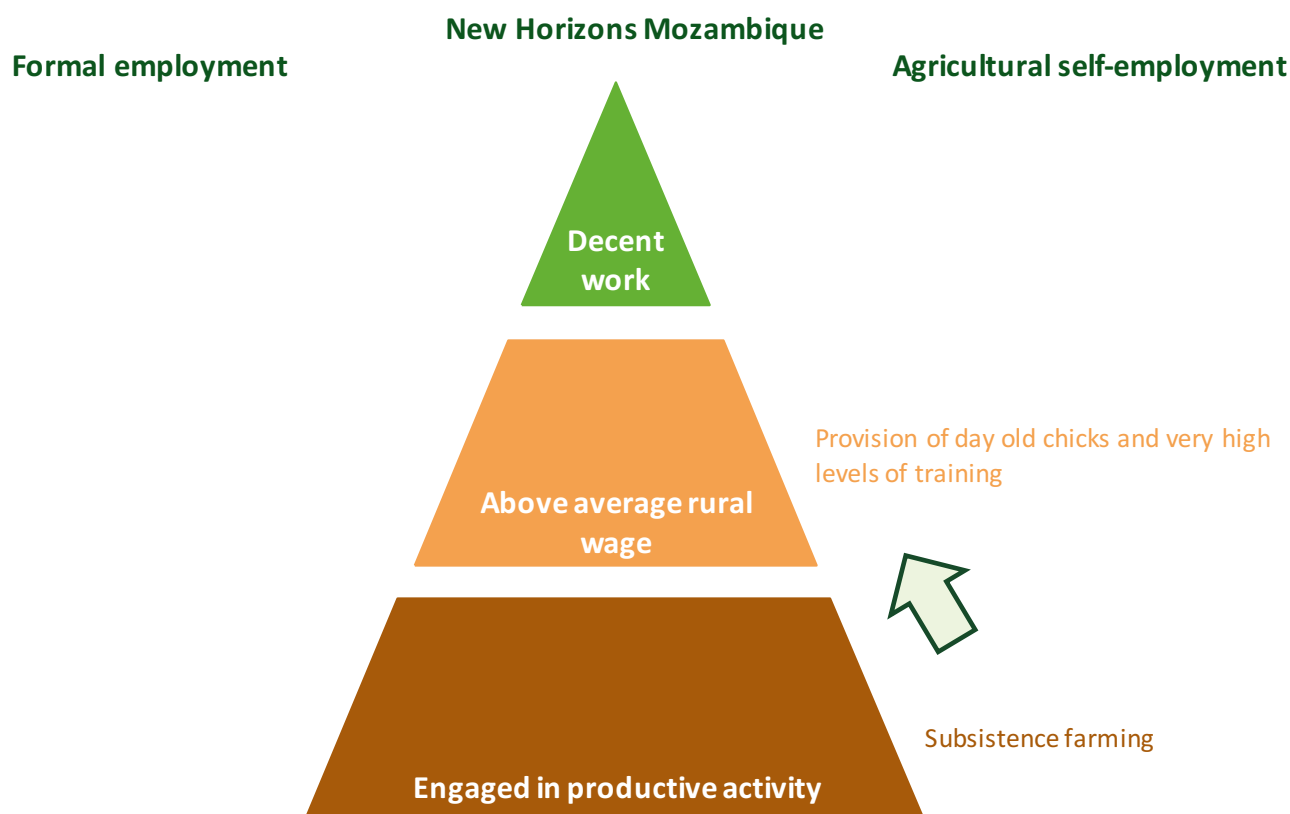
In 2015, TAMI sold insurance to 3,822 households, over half of whom lived below the Zimbabwean poverty line (as estimated using proxy poverty indicators). Average household benefit in these circumstances is difficult to calculate, given that in many years households won't be paid at all. Furthermore, the current figures are somewhat unreliable since TAMI's model initially made too many pay-outs and was not sustainable. In the future, however, annualised household benefit is estimated to be in the region of US\$50. TAMI also hopes to expand to cover over 60,000 farmers across Zimbabwe.

Training and education

Training and education improve opportunities for productive work and work that has meaning. Training can serve as a means to exchange views and insights. It can be a two way process that benefits both trainee and those imparting information. Smallholder farmers in Sub-Saharan Africa are not always fully cognisant of the most appropriate agricultural practices or techniques for the crops they are farming. Agricultural training and education can help significantly raise productivity and can develop farmer resilience. The importance of education is perhaps clearest when examining outgrower schemes; a previous study of 28 successful large-scale outgrower projects found 26 involved some form of agricultural training or extension services³⁶. Training is also required to enable farmers to effectively utilise high-quality inputs. Without training, inputs are often used incorrectly and inefficiently, perpetuating the belief that the more expensive high-quality inputs don't work and this results in farmers turning away from using them in the future.

Transitioning from staple food crops to cash crops can also require extensive education. Cash crops often require more intensive labour care and more specialised application of inputs. They may also be relatively new to the region, with little community knowledge on successfully producing them. Without appropriate education, transitioning to cash crops, which often requires significant capital expenditure

Figure 19: New Horizons Mozambique's role in creating opportunities for decent work



on behalf of smallholder farmers and a high degree of risk, is unlikely to be successful.

Education is thus a necessary condition for other mechanisms through which the quality of work for smallholders can be improved. It is notable that of the successful case studies featured here, each has some sort of educational component.

Case Study: New Horizons Mozambique

New Horizons Mozambique is an outgrower scheme supplying smallholders with day-old-chicks to grow into broilers. Smallholders are visited daily by a poultry lab technician for assistance in raising the birds. They are given training for appropriate levels of feeding, housing, and basic veterinary services. Farmers can easily monitor how they are doing through four measurable indicators which are combined to a single score. Payment is linked directly into this score. These metrics enable smallholders to easily understand what constitutes effective and efficient poultry farming, a key component of education.

With such close contact and such extensive one to one training, the number of smallholder farmers that can be reached as part of this project are limited. Nevertheless, after three years the company had contracted 220 farmers, each receiving a household benefit of US\$1,017.

Summary

This chapter has demonstrated the various ways in which AECF funded agribusinesses have created opportunities for decent work for self-employed smallholder farmers. The most successful interventions take into account local contexts and challenges and combine a number of these mechanisms. For example, smallholder farmers could be provided with certified inputs to increase their yields, micro-insurance to reduce the risk they bear for taking on more costly inputs and against adverse weather, and be linked into export markets to ensure they receive premium prices and better incomes.

However, agricultural market systems do not exist in a vacuum. A conducive political, legal and regulatory environment is required to enable interventions to successfully create opportunities for decent work for smallholder farmers. It must also be recognised that in the long run, advanced production techniques and technologies will result in fewer farmers producing more agricultural products. It will therefore important to create opportunities for decent work outside of agricultural production, for example in areas such as post-harvest processing, transportation, storage, and sales. For this reason, it is increasingly important that donors and investors look to support agribusinesses aiming to add value to agricultural commodities on the continent, rather than exporting raw materials – and therefore opportunities for decent work – abroad.

AECF total net benefit to jobs conversion

This chapter has demonstrated that AECF funded agribusinesses have moved smallholder farmers from underemployment closer to full (self) employment by improving their productivity through provision of better inputs, or enabling the expansion of smallholder farm enterprises through acting as a guaranteed buyer. Projects such as Esco Kivu have created opportunities for decent work in areas where there were few jobs previously, transforming the entire employment environment in the local area. Moreover, providing training in better agronomic practices, farm management and financial literacy conceptually shifts activities which were previously done for subsistence into a profession.

The number of jobs created is increasingly a key indicator against which market systems development programmes and development finance institutions are measured. In line with this, and in light of the fact that AECF funded projects have contributed significantly to moving smallholder beneficiaries closer to full employment, we have converted the total net benefit of AECF projects to self-employed smallholder farmers into number jobs created. This has been done utilising a crude and limited methodology, which nevertheless should enable some comparability

of the AECF's impact with other programmes focused explicitly on job creation. To generate a "jobs equivalent" number, the total net benefit of AECF agribusiness projects to smallholder farmers in 2015 has been divided by: the minimum wage for the country the project is operating in (for agricultural workers where available), the ILO living wage³⁷, and the Gross National Income per person of working age.

As shown in the table below AECF agribusiness projects created the equivalent of over 196,000 jobs at the minimum wage level in each country of operation. When divided by the Gross National Income per person of working age for each country, the total falls to the equivalent of 62,000 jobs. Finally, at the ILO living wage level, AECF agribusiness projects created the equivalent of over 30,000 jobs. In reality, the benefits to smallholder farmers as a result of AECF funded agribusinesses are not in most cases the equivalent of earning the ILO living wage. As the majority of projects moved men and women from the first to the second tier of the decent work pyramid, it is reasonable to assume that the equivalent number of jobs created is somewhere between the minimum wage and Gross National Income per person of working age levels. **However, it should be reiterated that this conversion is a crude estimate and simply serves to reiterate the positive impact that the AECF's agribusiness portfolio has had on self-employed smallholder farmers.**

Country	No. of households benefiting	Total Net Benefit created by AECF projects	Jobs created at minimum wage	Jobs created at GNI/working age pop.	Jobs created at ILO Living wage
Burundi	659	\$ 45,959	115	95	16
D.R. Congo	26,102	\$ 6,656,010	15,155	8,236	2,248
Ethiopia	242,200	\$ 11,625,600	46,133	10,796	3,926
Ivory Coast	3,699	\$ 89,886	104	34	27
Kenya	114,553	\$ 27,931,019	42,810	11,443	8,490
Malawi	2,086	\$ 50,293	221	75	17
Mali	83,333	\$ 3,333,320	4,873	2,195	1,126
Mozambique	33,552	\$ 3,026,800	5,733	2,627	1,022
Nigeria	5,807	\$ 1,347,964	1,937	253	410
Rwanda	16,900	\$ 1,823,332	4,577	1,468	616
Sierra Leone	11,475	\$ 570,898	721	505	193
Somalia	6,032	\$ 6,566,514	26,058	6,106	2,218
Tanzania	94,092	\$ 19,127,750	35,596	11,155	6,460
Uganda	38,567	\$ 3,473,344	8,513	2,437	1,173
Zambia	9,513	\$ 262,844	162	90	80
Zimbabwe	227,307	\$ 7,098,198	3,480	4,518	2,397
Total	915,877	\$ 93,029,731	196,187	62,034	30,418

Source data: World Bank 2015, US State Department Country Reports on Human Rights Practices 2015

Alternative, crop-specific, methodologies can also be used to convert the AECF's impact into number of jobs created. For example, the case study below converts the increased household income generated by a single AECF project into a jobs figure by estimating the additional full time equivalent (FTE) hours worked on the farm as the result of an increase in yield. However, applying this type of methodology across the entire AECF agribusiness portfolio would require gathering significant primary data and is out of the scope of this paper.

Addressing underemployment in Tanzania: SeedCo

SeedCo is an AECF-funded project in Tanzania which develops and markets certified crop seeds. In 2015, SeedCo's hybrid maize seeds have been used by 67,193 households to increase their maize yields. Each household benefited by US\$50.36 on average from increased yields once additional costs of seed, fertilizer and pesticide costs were subtracted, giving the project a total net benefit of US\$3,383,799. This was based on an average increase in yield of 314kg on an average farm size of 1.2 acres.

Improved crop yields are an example of an increase in marginal productivity which can push smallholder farmers and their families further above subsistence levels and the poverty line, therefore going some way to address the issue of underemployment. Instead of reporting this as benefit per households, we could equally aggregate the benefit and convert it into the following jobs figures:

Average yield per hour for smallholder maize farmer in Tanzania = 1.6kg per hour

$314\text{kg} \div 1.6\text{kg per hour} = 196.25 \text{ hours or } 24.53 \text{ FTE days (assuming 8 working hours per day)}$

$24.53 \times 67,193 = 1,648,328 \text{ FTE days}$

$1,648,328 \text{ FTE days} \div 240 \text{ days per year} = 6,868 \text{ FTE jobs created}$



5. Indirect job creation in agricultural market systems

Analysing the indirect effects of AECF funding on the creation of opportunities for decent work in agricultural market systems consists of mapping the value chains in market systems for the products produced by three of our grantees. This process creates a temporal value chain map indicating how a product is developed, and the inputs and outputs at each stage. Having identified key suppliers and distributors, the extent of indirect job creation as a result of their businesses is ascertained together with the grantee. Given the complex nature of quantifying the effects of job creation across multiple agricultural market systems, calculating the total number of indirect jobs created as a result of AECF funded projects is out of the scope of this paper. Instead, this section focuses on three specific cases in order to demonstrate the potential for indirect creation of opportunities for decent work as a result of interventions in agricultural market systems. It is recognised that this approach is limited in its scope and detail, and a challenge fund or development finance institution seeking to track indirect job creation as a key KPI may seek to implement a more rigorous approach, for example an input-output model³⁸.

French Beans: Mount Kenya Gardens

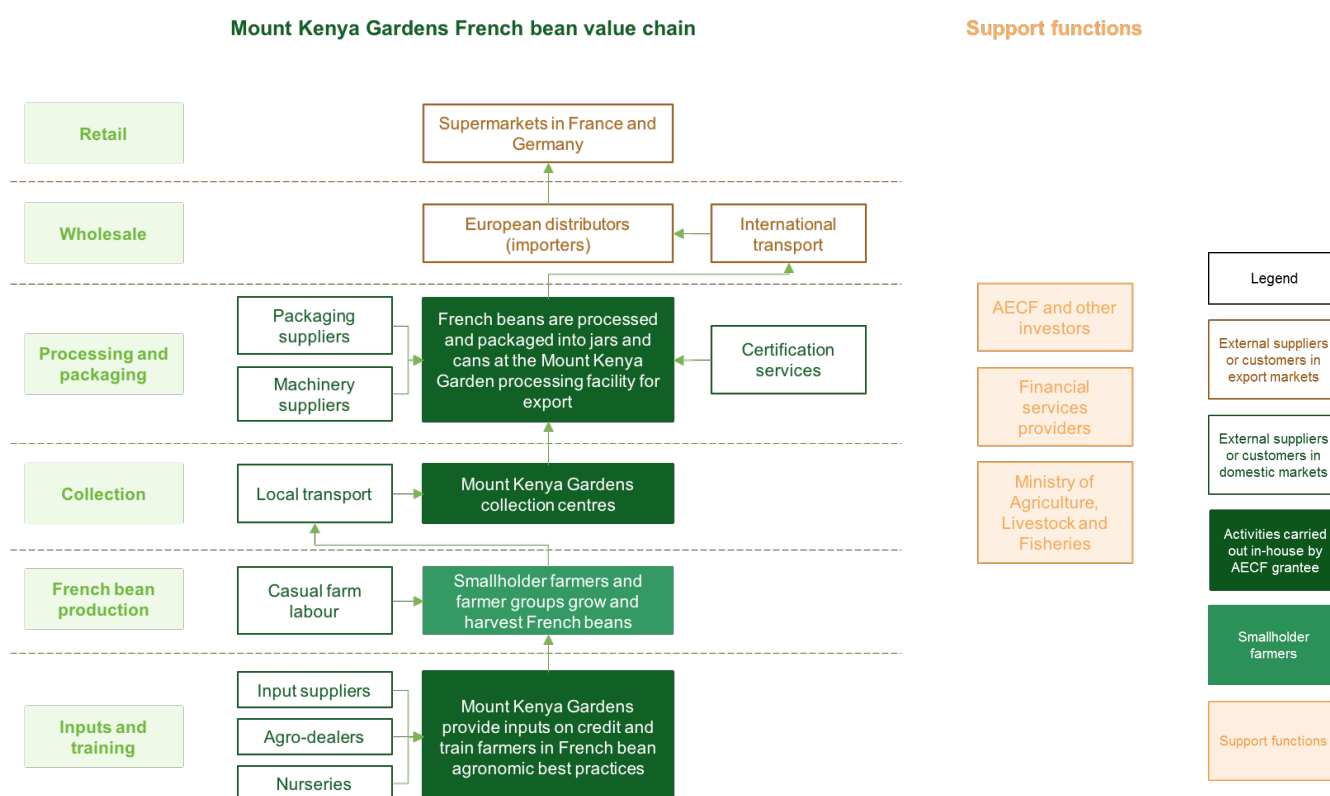
As highlighted on above, Mount Kenya Gardens is an AECF-funded business involved in producing, sourcing, trading and processing fruit and vegetables for both the Kenyan and export markets. Although Mount Kenya Gardens is involved in several horticultural value chains (including papaya, mango and banana), this case study focuses on their French bean processing business. Mount Kenya Gardens produce preserved French beans in brine for export to European supermarkets, particularly those in France and Germany. The company operates a centralised outgrower model and, through their wholly owned subsidiary, Meru Greens Horticulture, provides smallholder farmers with high quality inputs on credit, training in agronomic best practices, and contracts to purchase a pre-specified volume of beans at a guaranteed price.

The various stages of the company's French bean value chain are outlined in the diagram below. Dark green boxes indicate the activities which are carried out 'in-house' by workers directly employed by Mount Kenya Gardens, while the dark brown box represents the individual smallholder farmers and farmer groups who are contracted to grow French beans by the company. The impact of the AECF's investment on these

sections of the value chain, through improved smallholder productivity and the creation of secure and well-paid formal jobs, has been explored in Chapter 4.

The clear boxes represent activities in the value chain which are undertaken by external suppliers, distributors or customers. It is these activities which are of interest when assessing the impact of the businesses activities on the creation of indirect jobs. It should be noted, however, that this analysis does not include indirect jobs created in export markets (the clear boxes with brown outlines).

Figure 20: Mount Kenya Gardens French bean value chain map



Input suppliers and agro-dealers: Mount Kenya Gardens purchase inputs directly from input suppliers and agro-dealers, which they then provide to smallholder farmers on credit. The production of 1MT of unprocessed French beans requires approximately US\$85 of inputs, consisting mainly of seed, fertiliser, pesticide and herbicide. In 2016, the year the processing factory began its operations, the company bought and processed 1,000MT of French beans. In 2017, the company will need to process 8,000MT of French beans in order to meet their customers' demands, requiring an estimated US\$680,000 worth of inputs. Even at this scale, the number of indirect jobs created as a result of this demand for inputs is likely to be limited to a few additional employees in the sales and distribution departments of local input suppliers and agro-dealers. However, as Mount Kenya's operations expands further it may be that a more dedicated supply chain is established to service the input needs of producers, resulting in further indirect job creation.

Transport services: Transportation of harvested French beans to Mount Kenya Gardens' collection centres is the responsibility of smallholder farmers. This is done through a variety of modes of public or private rented transport e.g. motorcycle or pick-up. It is estimated that for 1MT of French beans transported, US\$4 is spent by smallholder farmers on transport costs, and therefore that US\$4,000 was spent on transporting beans to collection centres in 2016. This is the equivalent of approximately 3.05 FTE positions at the Kenyan minimum wage for drivers of 11,279 KSH per month³⁹, and is expected to rise to 24 FTE in 2017 given

the company's projected demand.

Mount Kenya Gardens outsources approximately 80% of transportation of unprocessed French beans from collection centres to the processing factory, and 100% of the transportation of processed jars and tins from the factory to port for export. The average time taken for a lorry carrying 3.5 MT of French beans from collection centres to the factory in the Export Processing Zone outside of Nairobi is 12 hours round trip, and therefore 2,743 hours – the equivalent of approximately 1.5 FTE roles – was spent transporting French beans to Mount Kenya's factories by an external transportation company last year. This is expected to rise to 12 FTEs in 2017 given the company's projected demand. Similarly, the average time taken for a lorry carrying 8 MT of French beans from Mount Kenya Gardens' factory in the Export Processing Zone to the port in Mombasa is 30 hours round trip, and therefore 3,750 hours – the equivalent of approximately 2.1 FTE. This is expected to rise to 16.8 FTE in 2017.

Packaging suppliers: In 2016, the majority of French beans processed and preserved by Mount Kenya Gardens were packaged in jars for export to the French and German markets. In order to meet the requirements of these European supermarkets, jars which meet their specifications had to be imported from France. As such, the indirect jobs created in packaging suppliers within Kenya in 2016 were negligible. However, this is expected to increase substantially

in 2017 as the volume of tinned French beans exported increases, as these tins are sourced in-country.

High-quality coffee: C. Dorman

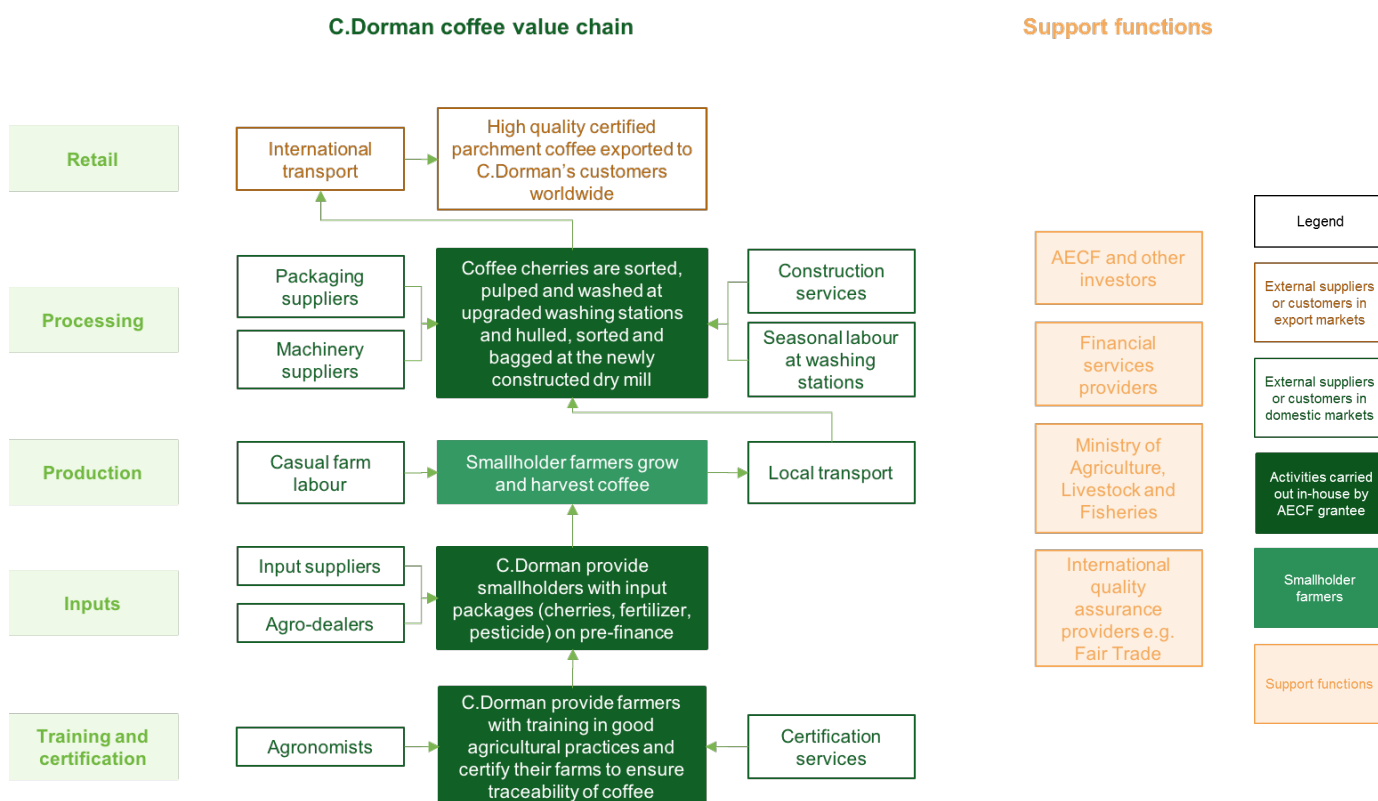
C. Dorman is a large, international coffee producer based in Nairobi. They received funding from the AECF to expand their outgrower scheme in Rwanda. There were two key components to the expansion of the scheme: developing the capacity of coffee farmers through agronomy training and input provision, and constructing wet mills to process and refine raw coffee cherries. The refined coffee is marketed as high-quality, speciality coffee from Rwanda to international buyers. As part of the project, C Dorman facilitated the certification of the coffee under international quality assurance systems, helping to deliver a price premium to both the company and to smallholders.

The diagram below traces the value chain for the coffee grown under the scheme, with the same colour methodology as before. There are significant horizontal inputs at three different stages. At the first stage, C. Dorman hires external agricultural trainers and certifiers to educate and certify the participating smallholder farmers. At the second stage, C. Dorman provides smallholders with pre-financed input packages consisting of fertiliser and pesticides. These inputs

are themselves supplied by input provision companies, representing a key horizontal supplier in the project's value chain. The third stage, with significant horizontal linkages is the coffee processing, which requires construction crews to build the wet mills, as well as packaging and machinery suppliers. In terms of vertical links, the most significant are the transportation of raw cherries between the farmer and the processing mills, and the transportation of processed cherry to international buyers.

Education and certification: C. Dorman agronomists are kept in-house, due to the scale of the project. Certification services cost approximately \$45,000, which goes to a per diem for lead farmers, transport for auditors, and the certification fee. Most of the labour for certification – internal inspections and training – is completed in-house, but there is an additional labour component for auditors.

Figure 21: C. Dorman coffee value chain map



Input provision: Input provision is handled through the National Agricultural Export Board of Rwanda (NAEB). They purchase fertiliser wholesale from large international producers, and then transport fertiliser to sector offices. C. Dorman then transports the fertiliser to cooperatives. The fertiliser is paid for by C. Dorman. The company estimates that each farmer uses 250 grams of fertiliser per tree, and each farmer has on average 3,000 trees. With a total of 18,000 outgrowers, that equates to 13,500 tonnes of fertiliser. Assuming each trip to sector offices takes a day, and that fertiliser is transported using trucks with a capacity of 10 tonnes, that equates to 1,350 labour days per year, or 5 FTE. That takes into account only transportation, and not labour in loading, unloading or storage.

Transport: Cherry is transported to local buying stations by farmers. From there, it is transported to wet mills by casual labour. This equates to about 25 jobs created during the harvest season, which lasts for approximately 90 days per year, and therefore the equivalent of 8.6FTE. Transport to the dry mill is carried out in-house.

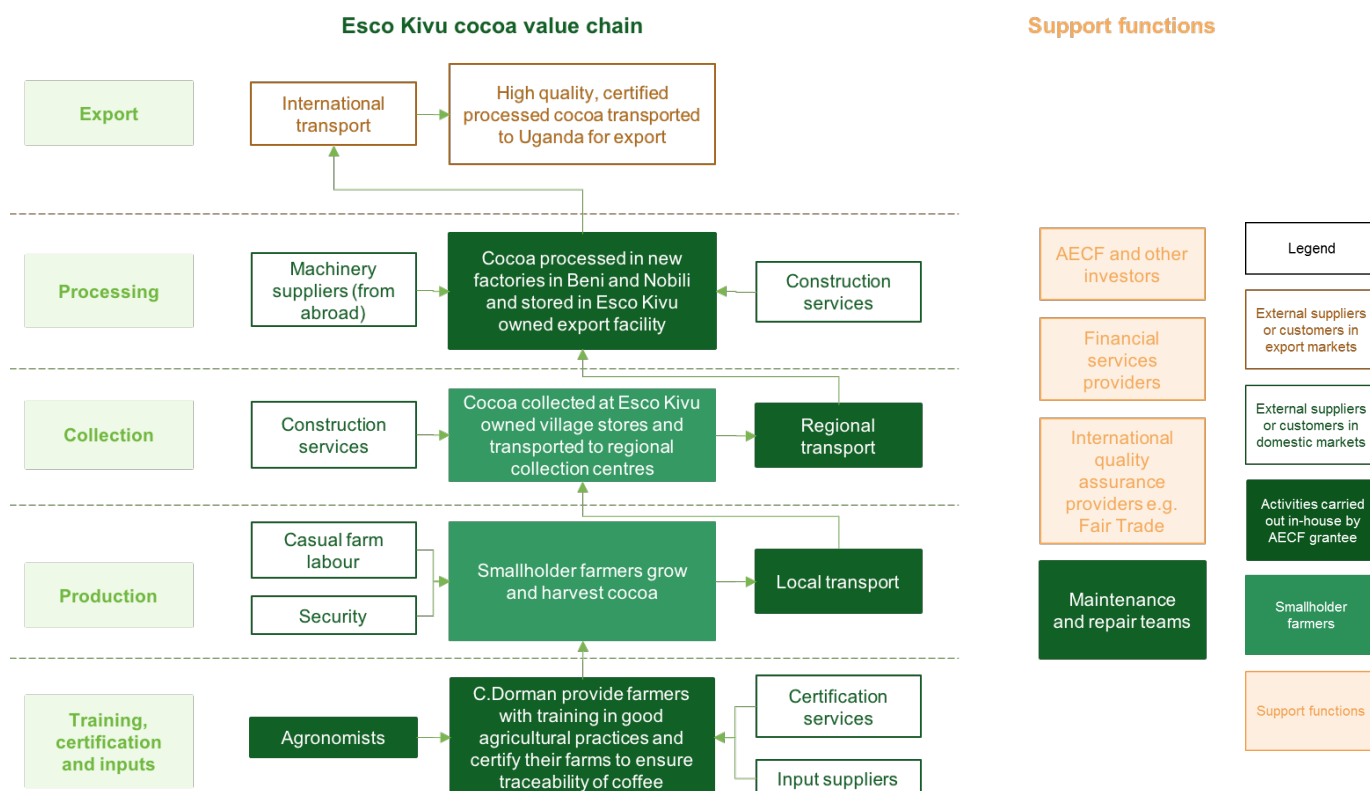
Processing: Casual labour is brought in during the harvest season at both wet mills and dry mills. This equates to about 250 people, working 90 days a year. That creates the equivalent of 86FTE. The majority of this work is carried out by women, hand-picking and sorting coffee beans at both the wet mill and the dry mill stage.

Smallholder Cocoa in Eastern DRC: Esco Kivu

An essential decision for companies is the extent to which they keep business activities in-house, rather than outsource along horizontal or vertical value-chains. This decision has major implications for the scale of any job creation along value chains – the more activities that are outsourced, the less the direct and the greater the indirect, job creation. This case study highlights the circumstances in which businesses decide to retain as much in-house as possible, using the example of Esco Kivu, a cocoa exporter operating in eastern DRC. In these circumstances, there may be little in terms of indirect value-chain job creation, yet companies have no choice other than to keep as many business activities within-house as possible.

Esco Kivu has trained thousands of local farmers in Kivu in growing cocoa, a cash crop that offers significantly higher incomes than other local alternatives. The industry did not previously exist on any scale in the region because of the turmoil and civil war affecting Kivu since Congolese independence. The security situation in Kivu is still very precarious, and the region suffers from a lack of infrastructure investment and limited state presence. The company supplies farmers with the necessary equipment, trains them, buys their cocoa, processes it, and

Figure 22: Esco Kivu cocoa value chain map



transports it to Kenya via Uganda for export. Throughout this process, Esco Kivu has decided to try and retain as many of the in-house functions as possible.

This point is easily illustrated by exploring Esco Kivu's business in greater detail. Rather than hire local transportation companies, Esco Kivu organises its own vehicles and drivers to pick up and transport cocoa. In case a vehicle breaks down, Esco Kivu has an internal team of mechanics to carry out repairs. The cocoa, rather than going through a middleman between farmer and exporter like many other cash crops, is instead collected in village collection stores, which are built and run by the company. The cocoa is then taken to Esco Kivu factories for processing, before being stored in an Esco Kivu warehouse ready for export. Esco Kivu has even delivered UV water filters to each village store to ensure workers there have a clean and reliable supply of drinking water. The company has effectively built its own internal ecosystem or value-chain in a region with very limited infrastructure.

This is partly due to security. The security situation in Kivu is very fragile, with active militia groups still operating in remote areas. This creates uncertainty when trying to build relationships with other suppliers operating in the region. Monitoring internal business activities is easier than trying to monitor external suppliers, and the degree of uncertainty created by the security situation demands very high levels of monitoring.

The lack of a developed business environment is also a factor. Local businesses in Kivu do not currently have the requisite expertise or equipment to play an active role in Esco Kivu's supply chain. To take a simple example, local transportation companies do not use vehicles with four wheel drive. Without four wheel drive, vehicles cannot traverse rural roads to pick up the cocoa from smallholder farmers even in the dry season. Similarly, there are insufficient experienced freelance mechanics in the area to provide a reliable service, requiring the company to build an internal team.

Finally, the regulatory regime is not conducive to a business enabling environment. The DRC is ranked 184th in the world in the Doing Business index out of 190 countries and, in Kivu, it is more difficult than the rest of the country. The business registration requirements are strenuous and act as a barrier to entry for companies and entrepreneurs. As a result, economic activity often takes place informally without proper company registration. This makes it extremely hard to ensure accountability and build long-term partnerships. The DRC also ranks 188th for trading across borders, which makes it difficult to bring in expertise or labour from companies in neighbouring countries to address any technical or expertise gaps.

This case study illustrates a generalised rule about the extent

of indirect job creation across both vertical and horizontal value chains; the more enabling and the more developed the business environment is, the greater potential for creating linkages with other businesses in supply chains, and the greater indirect job creation impact. In contrast, companies operating in very difficult business environments are forced to keep as much of the value chain in-house as possible. However, these companies' mere existence in difficult business environments can be transformative if they contribute to the development of infrastructure useful to other businesses in the region.

Companies operating in fragile states can also have a greater impact through induced employment, defined as work created by employees spending their wages. The regions in which Esco Kivu are operating in are starved of outside investment, due to political instability and the threat of violence. The money that Esco Kivu has brought into the region through payments to farmers and wages for employees has helped stimulate greater consumption and investment, although any employment creation is currently unquantified. Anecdotal evidence suggests that increased consumption from farmers working with Esco Kivu has catalysed the creation of new enterprises and employment within the area, although attributing causality or quantifying impact is very difficult. Although indirect employment creation for a given type of business is likely to be lower in regions without developed business environments, as explained above, induced employment effects could be higher, due to the scarcity of any consumption within these regions.

6: Conclusions and recommendations

This study has demonstrated creating opportunities for decent work in the agricultural sector in sub-Saharan Africa requires a focus on the market systems that companies and smallholder farmers operate in. Furthermore, improving the quality of work through raising the return on existing and new work and securing its security and sustainability will be as important as the creation of good quality new jobs. This recognises that underemployment is currently the key constraint on the livelihoods of sub-Saharan Africa's population, while acknowledging the need to create more good quality jobs as Africa's population grows. Increased productivity in the agricultural sector in Sub-Saharan Africa, particularly given its high level of labour intensity, can have a considerable impact on both unemployment and underemployment.

Recommendation 1: Investing in businesses which support smallholder agriculture will be fundamental in creating opportunities for decent work. This is particularly important as the World Bank estimates that economic growth in the agricultural sector is twice as effective at poverty reduction as growth in other sectors of the economy.

Recommendation 2: Donors, development practitioners and investors focused on creating opportunities for decent agricultural work in sub-Saharan Africa should design programmes and target investments which will address both unemployment and underemployment. This will require interventions which improve the quality of, and return on, existing agricultural work, as well as the creation of good quality new jobs.

Recommendation 3: It is critical that programmes and investments have a clear definition of what decent work means in their specific contexts. This should include strategic objectives with appropriate indicators and targets measuring appropriate aspects job quality. These should include equity and gender objectives.

Given the way in which the AECF was designed, the majority of its impact has been to increase the productivity, and therefore the livelihoods, of self-employed smallholder farming households. In 2015 alone, AECF agribusiness projects reached over 916,000 smallholder farming households, increasing their productivity and incomes by an average of US\$102 per household. Between 2008 and 2015, AECF agribusiness projects have delivered a total of US\$305m extra income to smallholder households in sub-Saharan Africa.

This paper identified seven key mechanisms through which

AECF grantees have been able to improve the quality of work for direct beneficiaries, primarily smallholder farmers. These are: increasing smallholder productivity through high-quality inputs, strengthening agricultural value chains, building links to export markets, expanding women's opportunities for decent agricultural work, bundling packages of services and inputs to expand access to new products, reducing smallholder risk, and providing training and agronomic education. The most successful projects were able to combine several of these mechanisms.

Recommendation 4: Increasing smallholder farmer productivity is a key to improving the quality of work in sub-Saharan Africa. Doing this well will require creativity, commitment and a deep understanding of local contexts. This implies a continual investment in research and analysis alongside interventions. Donors and investors should also provide finance to business models which provide farmers with the inputs and training they need, and enable them to take the risks required to turn their farms into businesses.

Recommendation 5: In the long run, advanced production techniques and technologies will result in fewer farmers producing more agricultural products. It will therefore important to create opportunities for decent work outside of agricultural production, for example in areas such as post-harvest processing, transportation, storage, and sales.

The AECF's investment in companies which bring value addition in country through processing of agricultural commodities before export, such as Mount Kenya Gardens in Kenya, has demonstrated the potential for these business models to create opportunities for decent work. First, value-addition is labour intensive and implies a high-level of formal job creation. Secondly, value-addition often has a large impact on indirect job creation through value-chains, as more of a product value-chain is moved in-country. Finally, greater value-addition capacity in-country can increase the market size for cash crops, which can earn self-employed smallholder farmers significantly more compared to traditional food staples.

Recommendation 6: Donors and investors focused on creating opportunities for new jobs/decent work as defined in this paper should specifically focus on agribusinesses which bring value-addition in country. Market system assessments should be conducted at the local, national and regional level to identify agricultural market systems which could benefit from having a competitive advantage and with potential for creating

high-quality jobs.

The case of Esco Kivu in DRC demonstrates that agricultural investments in fragile or post-conflict states, or simply marginalised regions of sub-Saharan which have little economic activity, have the added potential of transforming local areas through induced employment. Fully attributing and quantifying this impact can be very difficult, but there does seem to be some evidence to suggest that the consumption multiplier in regions with little economic activity is higher. However, against that, indirect job creation through value chains in economically deprived areas appears to be lower. Without a supportive and enabling business environment, fewer economic activities can be outsourced out to other businesses, reducing the potential for indirect job creation.

Recommendation 7: Donors and investors willing to support agribusinesses operating in fragile or post-conflict states difficult places can have a transformative effect if projects succeed. In particular, the secondary consumption effects from increased employment in these areas can have a catalytic impact on enterprise and job creation. The AECF's Post-Conflict-Window (PCW) has demonstrated how a successful business can sustain entire communities through providing direct employment and secondary consumption effects.

At the aggregate level, AECF funding to agribusiness projects has led to the creation of over 3,500 formal (61% for men and 39% for women) jobs between 2008 and 2015, with a cumulative wage bill of US\$53m. In 2015, the average annual wage bill for a job created in an AECF agribusiness project was approximately US\$3,905. Since it is estimated that fewer than 15% of the jobs created were in managerial roles, this indicates that the operational staff in AECF-funded businesses are earning significantly more than the average for sub-Saharan African countries – a big step towards decent work.

An analysis of AECF funded projects indicates that businesses selling inputs to smallholder farmers created fewer formal jobs than those which bought produce from smallholders. This is likely to be because input supply business models are less labour intensive, particularly in comparison to agro-processors which add-value to agricultural products through processing and manufacturing. However, donors and investors should recognise that, while investing in agro-processors may create more formal jobs, input supply companies play a big role in increasing agricultural productivity and therefore the return on work for those engaged in self-employed agriculture. Another interesting finding is that in the short-run, more innovative projects have led to less formal job creation. This reflects how riskier business ideas may lead to less immediate

creation of formal jobs in the short run. This does not mean that funding should be restricted to less innovative companies; more innovative agricultural projects may have more job creation potential in the long run, or alternatively may create more jobs through catalysing market systems development.

Recommendation 8: More research is required on trade-offs between novel and innovative agricultural business ideas and the creation of opportunities for decent work over different time scales. Understanding this dynamic better could help enterprise challenge funds, impact investors and market systems development programmes find the balance between innovation and job creation in the future.

It is also critical to recognise that agricultural market systems do not exist in a vacuum. A conducive political, legal and regulatory environment is required to enable interventions to successfully create opportunities for decent work for smallholder farmers.

Recommendation 9: Donors, investors, and agribusinesses should actively engage with governments and other key legal and regulatory stakeholders to ensure that laws and policies are in place which facilitate the creation of opportunities for decent work. In particular, it will be important to work through private sector and civil society associations which represent the interests of smallholder farmers.

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- 32 <https://agriknowledge.org/downloads/xw42n799s>
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- 39 <http://www.wageindicator.org/main/salary/minimum-wage/kenya>

