CAŞA
Commercial Agriculture for Smallholders and Agribusiness

The development impact of concessional finance to agri-business

A RAPID EVIDENCE REVIEW

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Authors

Mathias Hague
Michael Obanubi
Michael Shaw
Geoff Tyler

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Commercial Agriculture for Smallholders and Agribusiness

The CASA programme is a flagship programme of the UK Foreign, Commonwealth & Development Office (FCDO) and is intended to increase global investment in agribusinesses which trade with smallholders in equitable commercial relationships, increasing smallholders' incomes and climate resilience.

The programme aims to help agribusinesses to scale up and trade in larger commercial markets. As part of its work CASA generates new evidence and analysis that supports a stronger, fairer and greener agribusiness sector.

CASA is a consortium of organizations (CABI, NIRAS and SwissContact) working with programme partners (Technoserve, IIED, Malabo Montpellier Panel) and associate partners. This report was commissioned by CABI and the research was conducted by Wellspring.

Contents

List of Tables....4
List of abbreviations....5
Executive Summary....7
1 Introduction....11
1.1 Research question....11
1.2 Context and background....11
1.3 Key definitions....12
1.3.1 Concessional finance....12
1.3.2 Blended finance....12
1.3.3 Sources of concessional finance....12
1.3.4 Types of concessional finance....13
2 Concessional finance structures and institutions....13
3 Evidence review on other sources of concessional finance for agriculture....15
3.1 Conceptual framework....15
3.2 Methodology....15
3.3 Search methodology....16
3.4 Inclusion and exclusion criteria....17
3.5 Document coding....17
3.6 Quality appraisal framework....18
3.6.1 Review framework....19
3.7 Scoring the body of evidence....20
3.8 Overall assessment of the quality of evidence....21
4 Review of the evidence by type of impact....21
4.1 Types of impact identified in the evidence base....21
4.2 Farmers' yields....22
4.2.1 Techniques used to measure the change in yields....25
4.2.2 Findings on the development impact on farmers' yields....25
4.3 Farmers' incomes....26
4.3.1 Techniques used to measure the impact on farmers' incomes....28
4.3.2 Findings on the impact on farmers' incomes....28
5 Review of the evidence by different types of investor....28
5.1 Impact investors....29
5.2 DFIs....31
5.3 Commercial banks....32
5.4 Challenge funds....33
6 Conclusions and recommendations....33
Recommendations to improve the evidence base....34
Investors are already taking steps to improve the evidence base....34

References..39
Annex 1: Database of investors..41
Annex 2: Database of studies passing inclusion phase...46
Annex 3: Quality assurance process for the REA...51

List of Tables

Table 1: Concessional finance structures most relevant to agribusiness..............................14
Table 2: List of datasets reviewed...16
Table 3: Inclusion and exclusion criteria...17
Table 4: Document coding...18
Table 5: Appraisal classification...19
Table 6: Framework used to assess the studies in the evidence base.................................19
Table 7: Results of the quality appraisal...20
Table 8: Assessed quality of the study for the different types of evidence...........................20
Table 9: Scoring the overall body of evidence..21
Table 10: Quantity and quality of studies covering development impacts............................22
Table 11: Medium- and high-quality studies with reference to farmers' yields......................23
Table 12: Medium- and high-quality studies with reference to farmers' incomes..................26
Table 13: Studies covering impact investors/ investment..30
Table 14: Studies covering impact investors/ investment..31
Table 15: Studies covering impact investors/ investment..32
Table 16: Studies covering challenge funds..33
Table 17: Summary of the evidence that investors are planning to gather...........................34

List of Figures

Figure 1: Summary of the evidence base relating to different types of investor 29

List of abbreviations

AECF	Africa Enterprise Challenge Fund
AATIF	Africa Agriculture and Trade Investment Fund
AAF	African Agriculture Fund
ABC	Agri-Business Capital Fund
ADB	Asian Development Bank
AGRA	Alliance for a Green Revolution in Africa
OAF	One Acre Fund
ASIF	African Seed Investment Fund
BEAM	Building Effective and Accessible Markets
CIDA	Canadian International Development Agency
CASA	Commercial Agriculture for Smallholders and Agribusiness
CSAF	Council on Smallholder Agricultural Finance
COOPCAB	Coffee from the District of Belle-Anse-Thiotte
DCED	Donor Committee for Enterprise Development
DFI	Development Finance Institution
DFID	Department for International Development
DFI	Development Finance Institution
EIB	European Investment Bank
FCDO	Foreign, Commonwealth & Development Office
FCAS	Fragile and Conflict Affected States
FAFIN	Fund for Agricultural Finance in Nigeria
GAFSP	Global Agriculture and Food Security Program
GIIN	Global Impact Investing Network
IADB	Inter-American Development Bank
IA	Impact Assessment
IFC	International Finance Corporation
IFAD	International Fund for Agricultural Development
IFI	International Financial Institution
IRIS	Impact Reporting and Investment Standards
JSTOR	Journal Storage
LafCo	Lending for Africa Farming Company
LMICs	Lower-middle-income countries
LICs	Low-Income Countries
MCF	Mastercard Foundation
MFIs	Multi-lateral financial institutions
NAO	National Audit Office

OECD	Organisation for Economic Cooperation and Development
ODI	Overseas Development Institute
OPIC	Overseas Private Investment Corporation
RF	Rockefeller Foundation
PIDG	Private Infrastructure Development Group
PAEGC	Powering Agriculture: An Energy Grand Challenge for Development
RE	Research Evidence
REA	Rapid Evidence Assessment
RePEc	Research Papers in Economics
SHFs	Smallholder farmers
SME	Small and Medium-Sized Enterprise
SSA	Sub-Saharan Africa
SDGs	Sustainable Development Goals
TA	Technical Assistance
UMICs	Upper-middle income countries
VfM	Value for money

Executive Summary

The provision of concessional finance has become an increasingly important tool to support enterprise development, especially where financial markets are underdeveloped. For the purposes of this research, concessional finance is defined as that which is extended on terms and/or conditions that are more favourable than those available from the market. This can be achieved, for example, via lower risk adjusted return expectations; terms and conditions that would not be accepted/extended by a commercial financial institution; and/or by providing financing to a borrower/recipient not otherwise served by commercial financing. Risk mitigation tools, guarantees and first-loss products are also included when they are provided on concessional terms.

The Foreign, Commonwealth & Development Office (FCDO) of the United Kingdom (UK) has committed funding to a range of concessional finance investors in the agriculture sector, including significant sums for the CDC Group (the UK's development finance institution), AgDevCo (a specialist agribusiness impact investor), the Global Agriculture and Food Security Program (GAFSP) Private Sector Window, and the Africa Enterprise Challenge Fund (AECF). FCDO also makes smaller contributions to more specialized institutions as well as collaborative interventions with other donors in the agriculture sector. These organizations cover the spectrum of investment themes, from close-to-market interest rates for more established businesses to long-term, low- or no-interest debt with packages of advisory support for early stage or highly innovative business models. They deploy a wide range of instruments, some funded, which includes all types of concessional debt and equity; and others unfunded, which covers risk mitigation tools, guarantees and first-loss products when they are provided on concessional terms.

Implementing partners use different methods for monitoring and reporting the performance of the concessional funding provided by donors, using both customized measurement mechanisms or those based on more broadly accepted standards such as the Donor Committee for Enterprise Development (DCED). Research ranges from light touch human interest case studies to more formal longitudinal analysis using rigorous statistical survey methods. Academic institutions are increasingly contributing quality research, particularly to the assessment and understanding of development impact, often in partnership with impact investors. Donors themselves both directly engage in research but also provide the majority of the funding for evidence-based learning in both investors and academia.

After more than a decade of concerted investment and innovation in the concessional finance space, particularly in sub Saharan Africa and South Asia, there is increasing interest in understanding whether these interventions are providing the development impacts expected and which financing tools and institutions are most effective for different types of farmer and or food market systems. These lessons will allow good practices to be replicated in future and implementation modalities to be improved to maximize development impact and financial performance.

Scope of the research

A Rapid Evidence Assessment (REA) approach using a combination of key informant interviews and targeted literature searches of publicly available information has been used to answer the following questions:

> *What is the **evidence** supporting the **development impact** of **different forms of concessional finance to agribusinesses** (e.g. DFIs, impact investment, challenge funds) with respect to job creation, better living conditions, access to nutritious foods and climate resilience? Where are **the major evidence gaps**?*

The REA considered a number of finance sources, including **development finance institutions** (DFIs) that work principally through institutional structures, **impact investors** that provide investment capital in exchange for both finance and social returns and

challenge funds that competitively allocate resources for social returns but with some expectation of financial return or capital preservation.

By reviewing information databases and the websites of industry bodies and investors, the REA identified 83 academic papers, investor reports and other published documents that met a series of high-level search definitions. The REA did not use unpublished or draft information that is not available in the public domain. The documents identified were screened against eligibility and quality criteria set by FCDO's Strength of Evidence criteria, resulting in the number of relevant evidence sources declining to 38 documents, among them impact assessments, technical studies and academic research. The other 45 documents were excluded from the review. While 38 documents is a limited number of studies, this compares favourably with similar research such as ODI's 2019 DFI impact study[1] which considered 43 studies examining the development impact of investment in all sectors - rather than the single sector in this review.

The research is intended to assess the sufficiency of the available evidence to measure the development impact from concessional finance. Any lack of evidence for a particular impact does not infer that there is an absence of that impact, simply that the evidence base needs to be strengthened.

Key findings

Overall findings on the availability of evidence

The evidence base linking the provision of concessional finance to the achievement of development impact is limited.

Overall, 22 of 38 studies were ranked as medium or high quality, based on the size, quality and consistency of their content. Of these, ten were high quality with the majority being research papers published by academic institutions. Impact assessments were most often ranked as low quality (16 out of 25), because they are frequently short summary analyses for broad, non-specialist consumption. A review of the better-quality papers found that the evidence supporting the achievement of development impact from investments was often mixed. The number of studies that matched the inclusion criteria – that is, relevance to benefits for semi-commercial smallholder farmers and agribusinesses – was quite modest.

Findings on types of development impact

The studies included a range of eight development impacts, reflecting the breadth of investor's social objectives. Of these, two 'core' metrics in the agriculture development context were most commonly found: farmer productivity and farmer income. The evidence base for these two metrics were examined further within the sample:

- *Farmer productivity* – Studies measured the impact on yields either directly at farm level or indirectly through portfolio reviews and / or studies. Overall, the evidence from the studies was limited and presented mixed findings. For instance, some of the studies present evidence that the provision of concessional finance has had a positive role in increasing farmers' productivity. However, two of the studies raised concerns about the quality of the way in which farmers' yields are measured and reported.
- *Farmer incomes* – Again, medium- and high-quality studies were based on field-level research, but there were not enough to make firm conclusions. However, they provide some evidence that farmer incomes can be improved, particularly where the provision of concessional finance helped to strengthen the relationship between farmers and a formal cooperative or agribusiness that offered the farmers a premium for their produce (as well, in some instances, as the provision of technical assistance and other services).

[1] Attridge, Calleja, Gouett and Lemma (2019) The impact of development finance institutions: rapid evidence assessment.

Of the three thematic impacts of jobs, nutrition and climate change, whilst there was some limited evidence available on jobs the impacts of nutrition and climate change, although often mentioned, was not sufficiently analyzed within studies to be included in the evidence base.

Findings on the types of concessional finance investors

The majority of studies concentrated on impact investors but were not considered to be high quality. The overall conclusion was that evidence concerning different types of investors is generally lacking. However, some limited findings could be discerned:

- Twenty-two of the 38 studies concerned impact investors, although only five were rated medium or high sources of evidence, limiting the conclusions that could be drawn. Where these funds are additional (i.e. when the investor is providing investment or the investment generating outputs that would not have occurred otherwise) – they can help strengthen linkages of farmers to commercial value chains and reduce side-selling.
- For DFIs, there is some evidence that patient capital is important to enable agribusinesses to grow, including through the development of blended finance instruments that enable greater risks to be taken.
- In total four studies on commercial banks were found. Three of the studies provided some evidence that the banks' investments in agriculture had delivered positive developmental impacts, potentially enabling an increase in investment to the agriculture sector that would otherwise not have occurred.
- Studies of challenge funds were found to have provided some evidence that the funds had contributed towards the creation of decent work and supporting improved outcomes for smallholder farmers within outgrower models.

Conclusions

The majority of the studies that most directly present information linking investments and development impacts are produced by the investors themselves in the form of case studies. They meet the needs of these institutions in terms of marketing and the provision of high-level findings to a non-technical readership, but they lack the rigour of better resourced and evidenced studies.

A focus on the medium- and high-quality studies that do exist demonstrates that it is possible to generate interesting findings that link the provision of concessional finance to increases in farmer yields and incomes. More qualitative studies also provide an in-depth appreciation of how rural communities function and the factors that can influence the effectiveness of concessional investors in smallholder farming systems.

However, there are currently not enough high-quality published studies to provide confidence in the quality of evidence available linking the provision of concessional finance to development impacts. This precludes consideration of the effectiveness, efficiency and value-for-money of the different types of investor.

The demand for accurate measurement of the impact of this approach is relatively new and the limitations of the data and analysis are not surprising. Investors are currently taking steps to improve the quality of the evidence base with a number of implementing partners planning to publish studies that assess the development impact of their investments over the coming years. CDC Group has been developing a comprehensive assessment of the quality of the existing evidence base linking the provision of finance and developmental impact; the study is planned for publication in the first half of 2020. Its initial findings suggest – like this REA – that there are gaps in the evidence base.

Recommendations seek to address both the underlying drivers for generating and using quality research as well as the practical aspects of implementing research in a cost-effective manner.

It proposes that:

- The *quality of data and primary level research* can be improved by capital providers enforcing the use of existing measurement and reporting standards for implementing partners. Research should remain ‘right sized’ to the needs, budgets and capacity of stakeholders, as well as to the availability of data and other issues such as commercial confidentiality.
- More should be done to *use the findings* from studies that have been commissioned but have not been published, even if they contain negative messages. Content that has been published in summary form could be edited for consumption by different stakeholders, anonymized or used as input into additional research under specific conditions of confidentiality.
- The existing *sector co-ordination* structures at a regional or global level should lead the identification of research priorities, focus resources and disseminate learning. Examples of the key gaps in the literature include:
  - Evidence that considers the roles and business models that incubation funds can use to support effectively an increase in the pipeline of investable SMEs in the agribusiness sector.
  - Analysis of how SMEs are funding their growth, their financing needs and how investors can work most effectively with them in the future.
  - Categorizing and then reviewing the effectiveness of the different modes of concessional finance investment that are operating within the market.
- Increasing the *contribution of independent researchers* and academics to the evidence base by identifying and removing current impediments and, if necessary, providing financial support. The providers of concessional finance should, in collaboration with their funders and wider stakeholders, provide more resources to collect data appropriate to research needs and verify it through objective analysis.

1 Introduction

FCDO's Commercial Agriculture for Smallholders and Agri-business (CASA) programme has contracted Wellspring Development Capital (Wellspring) to complete a review of the available evidence on the development impact of different forms of concessional finance provided to businesses in the agriculture sector in sub-Saharan Africa and South Asia. The CASA programme seeks to sustainably increase investment in agri-business which benefits the livelihoods and climate resilience of smallholder farmers.

1.1 Research question

The overall objective of this review is to address the following question:

> *What is the* ***evidence*** *supporting the* ***development impact*** *of* ***different forms of concessional finance to agribusinesses*** *(e.g. DFI, Impact investment, challenge funds) with respect to job creation, better living conditions, access to nutritious foods and climate resilience? Where are* ***the major evidence gaps****?*

1.2 Context and background

A central element of the UK government's approach to facilitating growth and development of the agricultural sector in developing country contexts is utilizing concessional finance with the objective of mobilizing increased private investment in agribusinesses. FCDO has made considerable investments in different types of investor, including:

- In 2017, FCDO announced an investment of £3.5 billion in the UK's Development Finance Institution (DFI) the CDC Group. The CDC Group's most recent strategy states that it seeks to invest in the food and agriculture sector, targeting agribusinesses that can make sustainable improvements in agricultural productivity and enable farmers to scale up.[2]
- FCDO has invested over £176 million in the private sector window of the Global Food and Agriculture Security Programme (GAFSP) that is managed by the International Finance Corporation (IFC). GAFSP's Private Sector Window (PrSW) is a blended finance vehicle that combines IFC's own capital with donor funds.[3] GAFSP PrSW's objective is to mobilize IFC to invest in agribusiness projects that would otherwise have been unable to attract IFC funds. FCDO's investment in GAFSP PrSW has also been motivated by a desire to measure development impacts more robustly and project this innovation back into the wider IFC agribusiness.
- In 2018, FCDO announced an additional investment of £55 million in AgDevCo. AgDevCo is a specialist impact investor that provides growth capital and technical support to agribusinesses in Africa, particularly those with smallholder farmers (SHFs) in their supply chain.
- FCDO has invested $83m in both the agriculture ($26million) and renewable energy components of the Africa Enterprise Challenge Fund (AECF). AECF is a challenge fund that provides matching grants and concessional loans to small and medium-sized enterprises (SME) in Sub Saharan Africa.

In light of FCDO's increased investment in concessional finance investors to achieve its objectives in the agricultural sector, there is a need for better understanding of the evidence available to support the development impact achieved.

This REA will also be of significant value to policymakers in other member countries of the Organisation for Economic Co-operation and Development (OECD) that are scaling up

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[2] CDC (2017). Investing to transform lives. Strategic framework: 2017 – 2021.
[3] GAFSP PrSW also receives funding from Australia, Canada, Japan, the Netherlands, and the United States. https://www.gafspfund.org/private-sector-window.

investment in or considering establishing their own concessional finance investors. Accordingly, the overall objective of this REA is to assess and synthesize the evidence base on the development impact of concessional finance in the agricultural sector in Africa and South Asia. This REA will strengthen FCDO's understanding of the critical assumptions that underpin its agricultural sector strategy.

1.3 Key definitions

1.3.1 Concessional finance

The REA builds on the OECD's definition, which states that a concessional loan is defined as follows:[4]

> *These are loans that are extended on terms substantially more generous than market loans. The concessionality is achieved either through interest rates below those available on the market or by grace periods, or a combination of these. Concessional loans typically have long grace periods.*

To take account of other concessional finance instruments, the REA also utilizes the following definition of concessional finance presented in a DFI Working Group on Blended Concessional Finance for Private Sector Projects:[5]

> *…finance… extended on terms and/or conditions that are more favourable than those available from the market. Concessionality can be achieved through one or a combination or the following: (i) interest rates below those available on the market; (ii) maturity, grace period, security, rank or back-weighted repayment profile that would not be accepted/extended by a commercial financial institution; and/or (iii) by providing financing to borrower/recipients not otherwise served by commercial financing.*

1.3.2 Blended finance

The definition of blended concessional finance also builds on the DFI Working Group on Blended Concessional Finance for Private Sector Projects:[6]

> *Combining concessional finance from donors or third parties alongside DFIs' (or other investor) normal own account finance and/or commercial finance from other investors, to develop private sector markets, address the Sustainable Development Goals (SDGs), and mobilize private resources.*

1.3.3 Sources of concessional finance

The different sources of concessional finance that are the main focus of this study are:

- **DFIs** are described by the OECD as follows:[7] Specialized development banks or subsidiaries set up to support private-sector development in developing countries. They are usually majority owned by national governments and source their capital from national or international development funds or benefit from government guarantees. This ensures their creditworthiness, which enables them to raise large amounts of money on international capital markets and provide financing on very competitive terms.
- **Impact investors** are described by the IFC[8] as investors that make investments into companies, organizations, vehicles and funds with the intent to contribute to measurable

[4] https://stats.oecd.org/glossary/detail.asp?ID=5901.
[5] DFI Working Group on Blended Concessional Finance for Private Sector Projects. Joint report, October 2018 Update. (2018).
[6] DFI Working Group on Blended Concessional Finance for Private Sector Projects: Summary Report. (2017).
[7] http://www.oecd.org/dac/stats/development-finance-institutions-private-sector-development.htm
[8] https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Impact-investing/Overview/.

positive social, economic and environmental impact alongside financial returns. The term "impact investor", captures a very broad range of different types of investor, which make use of a wide variety of financial instruments and approaches.

- **Challenge funds,** are defined by FCDO, the Inter-American Development Bank (IADB) and the Canadian International Development Agency (CIDA) as 'a competitive mechanism to allocate financial support to innovative projects, to improve market outcomes with social returns that are higher/more assured than private benefits, but with the potential for commercial viability'.[9]

1.3.4 Types of concessional finance

Investors that provide concessional finance make use of a wide range of instruments. For the purpose of this paper these instruments are categorized into two types:

- **Funded instruments,** including types of concessional debt (e.g. working capital loans, lease finance, micro-finance loans, terms loans, loans with a grace period, subordinated debt, local currency loans, bonds) and concessional equity (including equity and quasi equity instruments).
- **Unfunded instruments,** such as risk mitigation tools, guarantees, first-loss products when they are provided on concessional terms.

The difference between funded and unfunded instruments, is that the funder (e.g. public institution) needs to provide capital to an investor up-front to enable the investor to provide concessional loans and equity, while for the unfunded instruments the funder will typically only supply the capital when and if it is called and so only has to make a provision for the unfunded instruments that it supports.[10]

2 Concessional finance structures and institutions

The previous section defined the three types of institution that provide concessional finance and the types of financial instruments that they provide. This section categorizes the different **approaches and models that are used to provide concessional finance to agribusinesses.**

To address this question the study developed a database of over 55 institutions that are or have recently been involved in providing concessional finance to agribusinesses and agriculture in Sub-Saharan Africa (SSA) and South Asia. Institutions that obtained their funds from purely private sources and institutions that only provide grants are not included, because this study is focused on different forms of concessional finance.

The review of these institutions found that there are a complex range of approaches used to provide concessional finance to agribusinesses. The sub-section below summarizes the most common models/ approaches found in the current financing landscape.

When reviewing the database of investors, the study found that by far the most common structures to the agribusiness financing landscape are the concessional capital and technical assistance models. In practice many of the institutions are actually combining concessional finance structures together with the use of Technical Assistance (TA) facilities to provide finance to agribusinesses.[11] Table 1 below provides a breakdown of the different models observed and provides some examples of relevant institutions.

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[9]Pompa (2013). Understanding challenge funds.

[10] Funders/ donors can also provide core funding to a provider of guarantees/ insurance products to give them the capital base needed to establish their operations. Core funding requires up-front capital commitments, though it can also be structured.

[11] These TA facilities also have multiple structures. Common features involve a choice between having the facility managed in-house or managed independently; between providing full grants or making use of matching funds; and the choice of providing TA support pre- or post-investment.

Table 1: Concessional finance structures most relevant to agribusiness

Description of the structure	Examples of institutions
DFI investment Multi-lateral and bilateral DFIs investing into agriculture on their own account. Direct investments are rare. Instead they are typically exposed to agriculture indirectly through their investments in locally-based private equity/ agribusiness funds. These funds are generally required to make financial returns that are close – if not equivalent - to market levels.	• IFC • OPIC (USA DFI) • CDC Group • Swiss Investment Fund for Emerging Markets (SIFEM) • Proparco • KfW/ DEG
Blended DFI structures DFIs that blend their own funds, together with concessional capital from donors/ foundations and can also utilize TA funds. They are typically required to make a financial return, sometimes close to market level returns. In theory the blended structure enables the DFI to become exposed to risks that it would otherwise be unwilling to be exposed to[12].	• GAFSP Private Sector Window • CDC plus • Africa Investment Platform
Commercial impact investors Investors that obtain funds primarily from more-commercial sources of capital that have higher return requirements. (Many are recipients of investment from DFIs). They often have TA funds available, which are sometimes funded separately by a donor/ foundation. These investors are generally set up to focus entirely on an individual sector such as agriculture.	• Africa Food Security Fund • The Nisaba Fund • Fund for Agricultural Finance in Nigeria (FAFIN) • African Agriculture Fund (AAF) • Moringa
International financial institutions These are large multi-lateral financial institutions that make investments to support agricultural development that can range from the provision of concessional finance through to results-based grant programmes and some grant programmes aimed at supporting public sector initiatives.	• IFAD • World Bank • European Investment Bank (EIB)
Subsidized impact investors Investors that get their capital primarily from concessional sources e.g. donors/ foundations/ private donations. Most have the ability to utilize TA funds (usually in-house funds, but some outsourced TA models exist). They typically require subsidies to remain sustainable, but some do end up making financial returns. These investors are generally focused entirely or at least predominantly on agriculture.	• AgDevCo • Root Capital • ABC Fund • LafCo • Global Innovation Fund • Africa Agriculture and Trade Investment Fund (AATIF) • Shared Interest
Challenge funds/ foundations Challenge funds/ foundations that primarily provide grants to agribusiness (including TA grants) but also have the capability to provide concessional finance. Their overall portfolio typically does not operate on a financially sustainable basis. They typically operate across multiple sectors, including agriculture.	• African Enterprise Challenge Fund (AECF) • Shell Foundation • Powering Agriculture

[12] In the case of the GAFSP PrSW, on individual investments it seeks a return that enables high risk viable investments to go forward while securing overall investment reflows at the Program level that enables the PrSW to reinvest as a rotating fund, at roughly the same level as what most donors originally paid in as grants.

Source: Wellspring Development analysis

This breakdown of blended financial structures is needed to demonstrate the various options available to funders, such as donors and foundations, around the type of concessional finance structure to support providing concessional finance to agribusinesses.

3 Evidence review on other sources of concessional finance for agriculture

This section identifies and then summarizes the available evidence on the development impact of agribusiness investment interventions that involve concessional finance from other public or philanthropic sources.

3.1 Conceptual framework

The conceptual framework below defines the scope of the assessment through a series of parameters around which both the source of funding and the investment activities are defined:

- The investments of concessional finance investors in agriculture/ agribusinesses in developing countries. This excludes purely private investors as well as investments that are made only in the form of grants.
- The source of the concessional finance as categorized in Section 2.
- The type of blended finance structures employed to facilitate the provision of concessional finance.
- The financial instruments and technical assistance employed by the different investors.
- The quantitative development impacts of the investments, which can take many forms including for instance: improved incomes, poverty reduction, creation of jobs, creation of decent jobs, nutrition, climate resilience, women's economic empowerment, impact in low-income countries etc.
- The distributional impacts of DFI investments, by looking at how (and why) the impacts are distributed and differ across poverty levels and gender.

3.2 Methodology

The REA applied the process articulated in the UK Civil Service's (2014) guidance, "How to do a REA".[13] The process included:

- A search for evidence.
- Application of the inclusion criteria to the studies found, which were then reviewed further to determine the relevance of the studies found.
- An assessment of the quality of the evidence found in studies that passed the inclusion criteria.

The structured search, together with snowballing – getting interviewees to suggest other informants – and suggestions on relevant research studies from experts, yielded a total of 83 studies. Following a review of the studies and application of the inclusion and exclusion criteria, 44 relevant studies remained; of these six were contextual studies that provided useful information/ evidence related to the research topic. This leaves a total of 38 studies included within the evidence base.

[13] UK Civil Service (2014) 'How to do a REA'. London: Civil Service. (https://webarchive.nationalarchives.gov.uk/20140402163101/http://www.civilservice.gov.uk/networks/gsr/resources-and-guidance/rapid-evidence-assessment/how-to-do-a-rea).

Based on this review, there are a small number of academic studies that directly address the research question for this study. There are however, a much greater number of academic studies, which might be termed as ‘rural finance’ studies that are tangential to this research question. For instance, studies that used village-level random control trials to assess the impact of providing insurance or zero interest micro-credit loans to smallholder farmers. Although some of these studies do in practice consider the development impact of concessional finance, they are not focused at all on the different types of concessional finance providers/blended finance structures that are of most relevance to this project.

As will be elaborated later, a substantial proportion of the studies found were prepared for non-academic audiences. These principally took the form of annual impact reports from investment institutions that have the primary function of marketing for the organization.

In terms of ‘policy research’, many of the studies found were more general reports that sought to explain the concept of concessional finance/ blended finance and articulate why it could help to mobilize additional capital to facilitate investment in developing countries. Other studies investigated specific thematic concepts of concessional finance (such as, for example guarantees) which impact on a wide range of sectors in addition to agriculture. These were also not included in the study.

3.3 Search methodology

The table below lists the databases and other sources of information that we used to search for evidence.

Table 2: List of datasets reviewed

Search engines	Industry websites/ databases	Investors
Google Scholar	Making finance work for agriculture	The websites of all the concessional finance investors included in our database see Annex 1 for the full list
Journal Storage (JSTOR)	Rural and Agricultural Finance Learning lab	
Social Science Research Network (SSRN)	Convergence website	
IDEAS/ Research Papers in Economics (RePEc)	World Bank	
Practical action publishing website	Institute of Development Studies	
	Overseas Development Institute	
	OECD iLibrary	
	Global Impact Investing Network (GIIN) website	
	3ieimpact.org	
	DCED/BEAM Exchange	
	Partnership for finance in a digital Africa	
	CSAF	

The literature search employed the following approach:

- The following search terms were employed, with the results filtered by year to make the number of results more manageable:

  - “concessional finance” or “blended finance”
  - “agriculture” or “agribusiness”
  - “impact”
- The above search terms were also combined with “impact investor” or “challenge fund”. This approach yielded a very small number of results on google scholar and none on some of the other databases, but the studies found were not typically relevant. Of the results found, most were not specific to the agriculture sector and were therefore discarded.
- For the industry websites/ databases, the terms “agriculture” or “agribusiness” and “concessional finance” or “blended finance” were entered, and a visual search for relevant studies was conducted.
- For investors’ websites, a search of their websites was completed to identify any studies and reports that were relevant. Blogs and short thought pieces/ annual reports/ brochures were excluded along with short project-level case studies that were purely descriptive and similar to the material presented in annual reports. There is a degree of subjectivity in distinguishing between these promotional case studies and the more analytical ones. Furthermore, it is probable that there are some reports that would be relevant to this study but are not currently available in the public domain.

Following the searches of the different databases listed above, the snowballing approach was utilized, in which additional studies were identified using the cited papers, data, reports etc. To quality-assure the findings, a second-round search process was also undertaken; the findings are summarized in Annex 3.

3.4 Inclusion and exclusion criteria

The following criteria were used to include/ exclude studies from the REA.

Table 3: Inclusion and exclusion criteria

	Inclusion criteria	Exclusion criteria
Language	English	Not in English
Date	Post 2009	Pre-2009
Type of publication	Journal articles, working papers, independent or at least some evidence of peer reviewed evaluations, institutional reports	Blogs, annual reports, unpublished works, student papers, chapters of books
Focus of the study	The study must assess the impact of the provision of concessional finance (or other variants of the term) on agribusinesses/ agriculture in lower income countries (LICs), lower-middle-income (LMICs) or upper-middle income countries (UMICs), as defined by the World Bank. This expands the country coverage beyond FCDO-focus countries, but we found that restricting the evidence base to only FCDO countries would have made the evidence base even smaller than it already is	Any study that does not assess the impact of concessional finance to agribusinesses/ agriculture in FCDO focus countries

3.5 Document coding

The studies that passed through the inclusion criteria were coded utilizing similar parameters to those used in a REA completed by the Overseas Development Institute (ODI).[14] However,

[14] ODI (2019). Impact of development finance institutions on sustainable development. An essay series.

due to the nature of the studies found in this REA, an additional row was added, called "Evidence type", which is classified as follows:

- Research evidence (RE). The small number of peer reviewed studies/ research orientated papers that are specific to the research question under consideration in this project.
- Project/ portfolio level impact assessments or evaluations (IA). These are studies that are published by the concessional finance providers themselves. They present an assessment or evaluation of the development impact of the investors' projects/ portfolio.
- Contextual studies. These are studies that are relevant to the research question, but either present a literature review of the concessional finance landscape or present an overview of the existing investors in agriculture without necessarily presenting objective analysis of the development impact that they deliver, e.g. they just publish the investors' own estimates of the impact of its investments.

Additional rows were also added to capture the specific development impact(s) that were covered in each study found.

Table 4: Document coding

Author(s)	
Title	
Publication year	
Evidence type	Research evidence (RE) Project/ portfolio impact assessment/ evaluation (IA) Contextual studies
Research type	Primary (P) Secondary (S) Theoretical (T)
Research design	Experimental (P) Quasi-experimental (P) Observational (P) Systematic review (S) Other review (S) N/A (T)
Data analysis method	Qualitative Mixed-method Quantitative
Geographical coverage - region/ country	
Type of investor	Utilizing categorization presented in Section 2
Type of finance	Debt, equity
Development impacts included	Jobs; productivity/ yields; farmers' incomes; SHF reached/ included in value-chain/ households reached; environmental; gender; economic growth; economic/ community transformation; food security/ production; other
Summary of main findings/ evidence	

3.6 Quality appraisal framework

Out of the studies that passed through the inclusion criteria, 26 were coded as being IAs and 12 were coded as being RE.

3.6.1 Review framework

The studies that met the inclusion criteria were scored against an appraisal framework. The scores were used to classify each of the individual studies into low, medium and high quality using as follows.

Table 5: Appraisal classification

Quality assessment	Criteria score total (range)	Definition
Low quality	0 – 11	Major deficiencies in the principles of quality
Medium quality	12 – 16	Some deficiencies in the principles of quality
High quality	17 – 21	Shows multiple principles of quality

Given the similarity of the research topic, a similar quality appraisal framework that was used in the ODI study was used to assess the quality of the RE, as shown in the table below.[15]

Table 6: Framework used to assess the studies in the evidence base

Conceptual framework	
Does the study acknowledge and consider other existing research within its own scope of research?	1 = No other studies are cited 2 = Studies are cited, but are not wholly pertinent to the discussion 3 = Studies are cited and are pertinent to the research
Does the study posit a clear hypothesis/research question?	1 = No clear hypothesis/research question is presented 2 = A hypothesis/research question is presented, but no clear answer is provided 3 = A hypothesis/research question is presented, and a clear answer is provided
Subtotal: 6	
Methodology and data	
Does the study outline a transparent and replicable methodology (including using appropriate proxy variables when necessary) that is linked to the research hypothesis/question?	1 = The study's methodology is not appropriate 2 = The study outlines some aspects of an appropriate methodology, but it is not replicable 3 = All datasets and methodological details are clearly defined and appropriate and the study is replicable
Are the data sufficiently independent?	1 = Data were gathered from possibly biased sources 2 = Some data were gathered from possibly biased sources; other data are independent. 3 = All data gathered are independent of phenomena being studied
Are data corroborated/supplemented by a secondary source (i.e. interviews, field work, site visits, quantitative analysis, robustness checks, etc.)?	1 = No 2 = Yes, by one secondary source 3 = Yes, by more than one secondary source
Subtotal: 9	
Validity	
Does the study suffer from any internal validity concerns (endogeneity, etc.) or external validity concerns?	1 = Yes, there is a problem, which is neither addressed nor acknowledged 2 = There is a validity problem, which has been identified, but not adequately addressed

[15] Attridge, Calleja, Gouett and Lemma (2019) The impact of development finance institutions: rapid evidence assessment. London: Department for International Development.

	3 = There are no issues with validity OR potential threats to validity have been identified and controlled for
Subtotal: 3	
Analysis and results	
Are the results clearly communicated, backed by rigorous analysis and mentioned with appropriate limitations and caveats?	1 = No 2 = Analysis and results are clear, limitations should be more clearly communicated 3 = Yes
Subtotal: 3	
Total: 21	

3.7 Scoring the body of evidence

The results of the assessment are set out below. A quarter of the studies were scored for a second time as a quality control mechanism to ensure consistency in interpretation of the scoring process. A summary of this analysis is presented in Annex 3.

Table 7 shows a large difference in the assessed scores between the studies categorized as being IAs (averaging just 11.3) compared to those identified as being RE (averaging 16.9).

Table 7: Results of the quality appraisal

	Conceptual framework	Methodology and data	Validity	Analysis and results	Total
IAs	3.4	4.8	1.4	1.7	11.3
RE	5.5	7.2	1.8	2.5	16.9
Overall	**4.1**	**5.6**	**1.5**	**2.0**	**13.2**

Source: Wellspring Development analysis

Table 8 below shows that out of the 25 IA studies, 16 were assessed as being low quality, and just three were assessed as being high quality (all of which were portfolio level evaluations carried out by independent organizations).

Table 8: Assessed quality of the study for the different types of evidence

	Low quality	Medium quality	High quality
IAs	16	6	3
RE	0	6	7
Overall	**16**	**12**	**10**

Source: Wellspring Development analysis

As explained in the ODI REA, discussions of endogeneity-omitted variables or other technical weaknesses of a methodology are generally not included in policy studies and thus we would not expect to find them in the impact assessment type studies, which are often produced primarily to emphasize/ communicate the benefits of the work that the investor is doing.[16]

The few examples of medium-quality project level case studies were published by Root Capital.[17] Although these studies were also not produced for an academic audience, the studies included a short description of the methodology that they employed. Perhaps more critically, they also provided a more nuanced description of the impacts of their investment,

[16] ODI (2019). Impact of development finance institutions on sustainable development. An essay series.
[17] See for example Root Capital (2013). Rapid Impact Evaluation Fruiteq - Burkina Faso.

pointing out some of the things that went wrong and what they learned from it – rather than just listing a series of positive impacts.

3.8 Overall assessment of the quality of evidence

The assessment of the overall strength of evidence available to assess the research question is based on the approach used in the ODI REA and the FCDO (2014) Assessing the strength of evidence guide; as summarized in the table below.[18,19]

The ranking takes account of the size, quality and consistency of studies.[20] Given the small number of studies passing the inclusion criteria, and the small number of high-quality studies, we first assessed the quality of the evidence base that demonstrates whether the provision of concessional finance to agribusinesses/ agriculture has a development impact rather than breaking this down by the type of investor or the type of impact. Even with this broad approach, as presented in Table 8 above, 22 studies were classed as being either high or medium quality and providing some evidence of the impact of the investments. A review of the better-quality studies finds that they include evidence to suggest that the development impact of the investments is often mixed.

Thus, the overall body of evidence linking the provision of concessional finance to agribusiness and the achievement of positive development impacts is quite limited. The following sections break down the literature into different contexts to assess and summaries the evidence for different types of impact and of concessional finance.

Table 9: Scoring the overall body of evidence

Strength score	Number of studies	Quality	Consistency
Compelling evidence	Large: >16	High	Consistent
Strong evidence	Large: >16	High/ medium	Consistent
Moderate evidence	Medium: 9 – 15	High/ medium	Consistent
Modest evidence	Medium: 9 – 15	Medium	Inconsistent
Limited evidence	Small: 2 – 8	Medium	Mixed
No evidence	Negligible: 0 - 1	Medium	Mixed

4 Review of the evidence by type of impact

This section reviews the evidence base focusing on the quality and quantity of evidence that links the provision of concessional finance to specific types of development impact. Annex 2 lists the studies that passed the inclusion criteria and lists the different development impacts covered in each study.

4.1 Types of impact identified in the evidence base

The studies included in the REA cover a wide range of development impacts, reflecting the varying social impact objectives of investors. There is however an emphasis on the ‘core’

[18] ODI (2019). Impact of development finance institutions on sustainable development. An essay series
[19] Department for International Development (2014). Assessing the strength of evidence. London: DFID.
[20] Consistency of studies taken from DFID (2014). Consistent = A range of studies point to identical, or similar conclusions. Inconsistent = One or more studies directly refute or contest the findings of another study or studies carried out in the same context or under the same conditions. Mixed = Studies based on a variety of different designs or methods, applied in a range of contexts, have produced results that contrast with those of another study.

metrics in the agriculture development context – farmer income, productivity, employment and reach.

Only a few of the studies provide a clear definition of the different development impacts or refer to the use of a standard metric such as the Impact Reporting and Investment Standards (IRIS). For some basic metrics, such as farmer yield, this is less of an issue, but it can become more challenging when qualitative studies refer to more-conceptual indicators such as 'community benefits'.

The table below summarizes the overall number and number of medium or high-quality studies that cover the development impacts. This might not be comprehensive because many of the studies refer to a large number of impacts anecdotally. The table shows that there are more medium or high-quality studies providing evidence on the development impact of concessional finance on farmers' yields (productivity) and incomes. The evidence base for development impacts such as food security, jobs and climate change is currently more limited.

Table 10: Quantity and quality of studies covering development impacts

Development impact	Number of studies	Number of studies: Medium or high quality
Productivity	11	7
Jobs	9	2
Farmers' incomes	14	6
Number of households/ SHFs	5	1
Linking farmers to markets	4	1
Transformation	4	1
Growth	3	2
Gender	5	1
Food security/ nutrition	4	3
Environmental	7	3
Other	5	4

Source: Wellspring Development analysis

The REA looked in more detail at the studies covering farmers' productivity and incomes to see if there are any interesting findings and also to consider the techniques and approaches used to estimate the impact.

4.2 Farmers' yields

The REA identified nine high/ medium-quality studies that contained reference to farmers' yields. The text below reviews those studies in detail to summaries the techniques used to measure how yields were affected by the investors and also assess the overall findings on the development impact. Of the nine studies reviewed, one of the studies was removed because the reference to farmers' yields was only anecdotal.[21] Table 11 below summarizes the findings.

[21] IPE Triple Line (2018), Evaluation of Sida's Global Challenge Funds Lessons from a Decade Long Journey. The reference to farmers' productivity is only anecdotal. Study is a high-quality evaluation of SIDA's investments

Table 11: Medium- and high-quality studies with reference to farmers' yields

Study name/ author(s)	Technique/ approach to estimating effect on farmers' yields	Findings
SYS Pons (2016). Program-Level Mid-Term Evaluation, Powering Agriculture – An Energy Grand Challenge for Development (PAEGC)	The mid-term evaluation relied on the PAEGC's M&E systems to present data on farmers' productivity. However, the reviewers found that the PAEGC did not have adequate M&E systems in place to measure their development impact.	Increasing farmers' productivity is a central objective of the PAEGC. The mid-term evaluation concluded that: 'most of the funded projects under PAEGC had not reached the stage of wide scale implementation at the time this mid-term evaluation was conducted as most of them only started field testing. As a consequence, most funded projects could not yet have an impact on e.g., the increase of agriculture productivity on the level of the beneficiaries'
LTS International Limited (UK) (2018). Program Evaluation Final Report Global Agriculture and Food Security Program (GAFSP) Private Sector Window	The evaluation assesses the approach used by GAFSP PrSW to estimate the impact of its investments on yields. It finds that 'work was still ongoing' to calculate the yield impacts and so the evaluation relied on the information from case studies.	The programme evaluation found that: 'Outcome level data on food insecurity and yield improvements is not available yet due to FIES starting in 2017 but case studies conducted for this evaluation confirmed the potential of GAFSP PrSW investments to result in positive outcomes for the rural poor, including improving incomes, yields and food security.'
Root Capital (2014). Improving rural livelihoods: A study of four Guatemalan coffee cooperatives	The study made use of a large survey of the beneficiary farmers and also incorporated a comparison group to provide a point of reference for the findings.	They found that the injection of Root Capital credit to the cooperatives 'reinforced and enhanced the mutually beneficial relationship between farmers and enterprise for the three (out of four in total) well-functioning cooperatives covered in the study'. This enabled the cooperatives to provide technical assistance support to more farmers which helped to increase their productivity, for instance by training them on how to limit the outbreak of disease, which reduced the incidence of the disease from 65% to 11%.

across multiple challenge funds, some of which relevant to agriculture. It thus covers multiple impacts across different funds with only limited discussion of each impact. Therefore, it doesn't provide good evidence specifically on farmers' yields.

Study name/ author(s)	Technique/ approach to estimating effect on farmers' yields	Findings
Tyler and Dixie (2013). Investing in agribusinesses: A Retrospective View of a Development Bank's Investments in Agribusiness in Africa and Southeast Asia and the Pacific	The research study used old annual reports/ studies to assess the performance of CDC Group's portfolio of agricultural projects in Sub-Saharan Africa and Southeast Asia and the Pacific between 1948 and 2000. One of the factors assessed is the extent to which each investment achieved the productivity targets (referred to as one of the technical targets for each project).	They found that 51% of the portfolio was categorized as a technical success – the main productivity targets were achieved; and 25% of the portfolio classed as a moderate success – reasonable productivity was achieved but it was below planned levels.
Obilor (2015). The Impact of Commercial Banks' Credit to Agriculture on Agricultural Development in Nigeria: An Econometric Analysis	The research study assesses the impact of Nigeria's Agricultural Credit Guarantee Scheme Fund using econometric techniques. Their source of data/ approach to measuring the change in productivity is not stated clearly in the research.	The result revealed that Agricultural Credit Guarantee Scheme Fund and Government fund allocation to agriculture produced a significant positive effect on agricultural productivity.
Belt, Kuleshov and Minneboo (2017). Development impact bonds: learning from the Asháninka cocoa and coffee case in Peru	The study presents a detailed case study of the use of the Asháninka development impact bond in Peru. The achievement of increased cocoa and coffee productivity was one of the main objectives of the bond. The authors reviewed the results of the independent verifier whose role was to assess whether the productivity – and other – targets specified under the development impact bond had been achieved.	The report states that the development impact bond project was implemented successfully, but noted that the data required by the independent verifier was not immediately available as there was a failure to realize what kinds of data requirements were connected to the different impact indicators, and to design an adequate project monitoring system around those data needs.
aBi Annual Report (2018), Building a Competitive and Sustainable Agribusiness Sector	aBi uses a series of externally commissioned IAs using good research practice to identify and attribute changes in farm performance amongst other impact metrics measured.	Half the farmers surveyed have increased production, with 43% of these raising it by more than 10%. The cereals sector experienced the greatest uplift with two thirds of farmers reporting improvements.

Study name/ author(s)	Technique/ approach to estimating effect on farmers' yields	Findings
Natasha Watts (2017). Investing for Impact: Finance and Farming in the Southern Highlands of Tanzania	The study presents a detailed case study of the Cheetah Development intervention in Tanzania. It uses a qualitative assessment of yield changes and the reasons behind this rather than a quantitative field measurement.	The study frames impact investing in cultural political economy, outlining how and why smallholder farmers didn't react in the way expected to the concessional finance provided by the non-profit investor

4.2.1 Techniques used to measure the change in yields

Of the eight studies covered, two made use of primary data to investigate the impact of concessional finance on the change in farmers' yields. The Root Capital (2014) study demonstrates that it is possible for investors to make use of survey data to measure the change in productivity associated with one of their investments. This type of evidence can provide some important insights to shape future decision making. The aBi Annual Report references a series of externally contracted impact studies that used field level surveys of a statistically significant sample size of beneficiaries to generate yield information. One study (Watts, 2017) generated qualitative commentary on the factors contributing to yield changes after the intervention of the concessional finance, which provides a different but no less important perspective to the quantitative approach.

The other studies relied on secondary sources of data. It is important to note that – in addition to the Watts (2017) study referenced above - the two studies of SYS Pons (2016) and LTS International (2018) present independent reviews of two concessional finance investors. Both of these reports found that the investor under consideration did not have the appropriate processes in place to monitor and evaluate the development impact of its interventions. This reinforces concerns around the way in which development impacts are being reported by users of concessional finance.

4.2.2 Findings on the development impact on farmers' yields

Overall, there are not enough medium- and high-quality studies available to make firm conclusions on the impact of concessional finance on farmers' yields. This is because, firstly, there are simply not enough high / medium-quality studies available and secondly the studies do not provide a consistent message:

- As mentioned above, SYS Pons (2016) and LTS International (2018) present independent reviews of two concessional finance investors. However, neither report presented evidence to suggest that concessional finance increased farmers' yields because of concerns about the way in which the development impact is measured and reported.
- The Root Capital (2014) study presents a project-level evaluation and finds some evidence that their financial support to the cooperatives played a role in increasing farmers' productivity. Analysis of this nature is valuable because it can help to unpick the reasons why productivity did or did not improve. The report provides detailed analysis of the factors behind the performance of the different farmer groups, which could be used to help future investors understand what sort of technical assistance might be valuable in achieving increased yields, though this is quite context specific. Although the aBi Annual Report (2018) used high quality studies to generate an overall summary of yield improvements, it did not go into the level of granularity of detail that would have been more useful to external observers.

- Three REs present some evidence to suggest that the provision of concessional finance helped to increase yields. For instance, Tyler and Dixie (2013) reviewed CDC Group's historical portfolio and found that 76% of the investments either achieved the productivity target or at least a moderate increase in productivity.

Given the above findings it is difficult to pull out overall messages without the risk of giving overdue weight to a small number of studies. However, it would be interesting for additional investigation to consider the link between the types of technical assistance which are most impactful in supporting increased farmer yields. For instance, the Root Capital study demonstrates that technical assistance to help farmers to mitigate the impact of disease and to provide them with higher yielding seeds can help to increase productivity.

4.3 Farmers' incomes

The REA identified 10 high or medium-quality studies that contained reference to farmers' incomes. The text below reviews those studies to summaries the techniques used to measure how incomes were affected by the concessional investors and also to assess the overall findings on the development impact.

Table 12: Medium- and high-quality studies with reference to farmers' incomes

Study name/ author(s)	Technique/ approach to estimating effect on farmers' incomes	Findings
Tyler and Dixie (2013). Investing in agribusinesses: A Retrospective View of a Development Bank's Investments in Agribusiness in Africa and Southeast Asia and the Pacific	The research study used old annual reports/ studies to assess the performance of CDC Group's portfolio of agricultural projects in Sub-Saharan Africa and Southeast Asia and the Pacific between 1948 and 2000. One of the factors assessed is the extent to which each investment achieved the direct development impact targets, which included income-earning opportunities.	They found that nearly two-thirds of the projects achieved their direct development impact targets.
Root Capital (2014). Improving rural livelihoods: A study of four Guatemalan coffee cooperatives	The study made use of a large survey of the beneficiary farmers and also incorporated a comparison group to provide a point of reference for the findings.	They found that in three of the four cooperatives that were supported by Root Capital finance, the farmer members were better off than non-member unaffiliated farmers. They also found that within these three cooperative groups, membership correlated with higher incomes.
Root Capital (2014). Rapid Impact Evaluation Fruiteq - Burkina Faso	The methodology included document review and interviews with Fruiteq and a small sample of farmers that supply to the investee company and farmers that do not supply to the investee company.	The study found that Root Capital's loan to Fruiteq enabled it to expand its purchase of mangoes from local farmers. It also found that those farmers who supplied Fruiteq saw their incomes increase – Root Capital estimated that there was a 43% increase in income for its 830 farmer suppliers.
Root Capital (2014). Case	The methodology included the completion of enterprise and farmer	According to the investee company's management, Root Capital's trade

Study name/ author(s)	Technique/ approach to estimating effect on farmers' incomes	Findings
Study Tziscao — Mexico	level surveys. The study included questions around poverty likelihoods and food insecurity levels, as well as members' perceptions of livelihood outcomes associated with cooperative membership. However, the study did not include surveys of farmers who were not suppliers to Tziscao.	credit enabled the cooperative to provide farmers with an advance upon delivery of their product. Root Capital's field experience suggests that this advance can enable farmers to sell more of their product to the cooperative than to middlemen, ultimately resulting in a higher income for members because of the premium they receive on price. However, the study could not ascertain whether the provision of the advance was in fact correlated with a higher proportion being sold to the cooperative.
Belt, Kuleshov and Minneboo (2017). Development impact bonds: learning from the Asháninka cocoa and coffee case in Peru	The study presents a detailed case study of the use of the Asháninka development impact bond in Peru. The achievement of increased cocoa and coffee productivity was one of the main objectives of the bond. The authors reviewed the results of the independent verifier whose role was to assess whether the farmers' income targets specified under the development impact bond had been achieved.	The report states that the development impact bond project was achieved successfully, but noted that the data required by the independent verifier was not immediately available, as there was a failure to realize what kinds of data requirements were connected to the different impact indicators and to design an adequate project-monitoring system around those data needs.
Root Capital (2013). Rapid Impact Evaluation COOPCAB - Haiti	The methodology included document review and interviews with COOPCAB and a small number of farmers that supply the investee company and a range of stakeholders involved in the coffee sector in the region.	The study estimates that the investee company, COOPCAB, brought approximately $200K to $500K in incremental income to coffee farmers. The Root Capital loans to COOPCAB enabled them to make payments to its farmers at the time of delivery, which then increased the quantity of coffee sold by the farmers through COOPCAB.
aBi Annual Report (2018). Building a Competitive and Sustainable Agribusiness Sector	The study used a series of externally contracted impact studies using field level surveys to generate an overall summary of income changes at the farmer level	The overall conclusion was that 60% of farmers improved their incomes as a result of the concessional finance. However, this is not shown in details of amounts, sub-sector etc.
Tripleline (2017). Maximizing the impact of outgrower schemes	The study used existing secondary information from investees as well as case study interviews to make a qualitative assessment of the factors that influence changes in farmer income under concessionally financed outgrower schemes	The report draws a series of conclusions on how outgrower schemes can maximize income impact, including the need to maintain very close relationships with farmers and moving farmers from staple to cash crops.
aBi (2017). Evaluation report of aBi finance	The report evaluated the use of impact studies (referenced above in the Annual Report) and produced some additional verification surveys	It concluded that whilst aBi should improve the collection and use of non-financial performance as part of regular M&E, the use of these impact

Study name/ author(s)	Technique/ approach to estimating effect on farmers' incomes	Findings
	that generated a qualitative understanding on whether the interventions had led to improvements in farmer income	studies supported the overall conclusions that aBi finance improved farmer incomes
Watts (2017). Investing for Impact: Finance and Farming in the Southern Highlands of Tanzania	The study uses field-level interviews and focus groups to generate a qualitative understanding of the factors that influence income changes at the farmer level.	The study outlines the farming system and the social and political aspects around production that influence whether farmers actually generate improved incomes in line with the projections of the investor

4.3.1 Techniques used to measure the impact on farmers' incomes

Of the 10 studies covered, one of them - Root Capital (2014) - made use of assessing the impact on farmers' incomes based on the findings from a large survey, including a survey of farmers in a comparison group. The three other Root Capital studies summarized in Table 12 included the use of smaller surveys. This again demonstrates that it is possible for investors to make use of survey data to measure the change in productivity associated with one of their investments. aBi used a series of impact studies to generate an overall narrative on improvements to income, but this could have been elaborated in much more detail in both the Annual Report and in the specific impact report on aBi Finance.

4.3.2 Findings on the impact on farmers' incomes

Overall, there are not enough medium- and high-quality studies available to make firm conclusions on the impact of concessional finance on farmers' incomes. However, the small number of studies identified do provide some messages. The Root Capital studies summarized provide some evidence that the provision of concessional finance to cooperatives/ investee companies that purchase products directly from smallholder farmers can lead to a positive and significant increase in farmers' incomes. In these studies, the provision of concessional finance helped to strengthen the relationship between farmers and a formal cooperative/ agribusiness, which offered the farmers a premium for their produce (as well as the provision of technical assistance and other services in some instances). This finding is also replicated in the Tripleline study on outgrower schemes funded by the AECF, although it does not contain more interesting analysis on whether this relationship is sustained once concessional financing is no longer available.

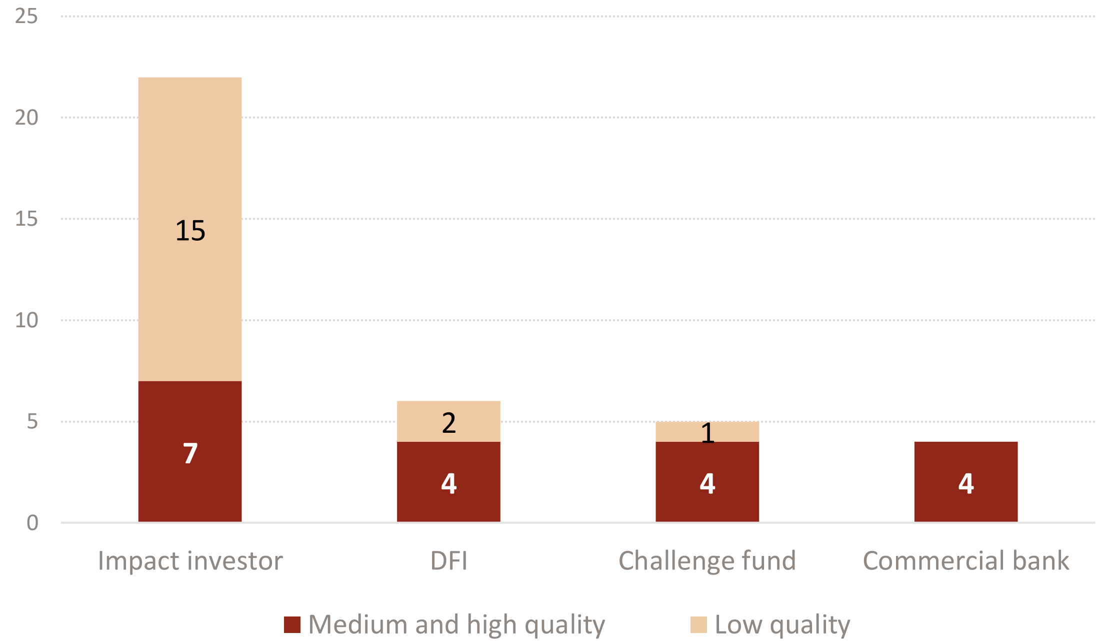
The impact studies summarized in the two papers on aBi confirm the link between improved incomes and concessional finance but are not sufficiently elaborated to make any further comment on causality.

5 Review of the evidence by different types of investor

This section reviews the extent to which the studies reviewed provide evidence on the development impact achieved by different types of concessional finance investor.

Figure 1 below shows that of the 38 studies that passed the inclusion criteria, 22 were focused on impact investors, six on DFIs, five on challenge funds and four on commercial banks (projects that involved the provision of concessional finance through a commercial bank). One covered a range of different types of investor (not shown in the chart). Annex 2 presents a summary of the studies that passed the inclusion criteria against the type of concessional finance (and also the financial instruments covered).

Figure 1: Summary of the evidence base relating to different types of investor



Source: Wellspring Development analysis

The findings of the medium- and high-quality studies for the different types of investor are reviewed in the following sub-sections.

5.1 Impact investors

Overall, 22 studies covered impact investors, of which seven were judged to provide medium- or high-quality evidence. The findings from these studies are summarized in the table below. Overall, there is a limited evidence base linking the provision of concessional finance by impact investors with development impacts. Some of the main findings include:

- The studies provided by Root Capital provide some evidence to demonstrate the important role that concessional finance can play when it is additional and helps formal agricultural organizations to strengthen their linkages with smallholder farmers and reduce the incidence of side-selling.
- One of the studies, Belt, Kuleshov and Minneboo (2017), examines the role that development impact bonds can play in providing a new financial product that can improve the allocation of the risk associated with achieving development impact targets between donor funders and the investors.

Table 13: Studies covering impact investors/ investment

Study name/ author(s)	Findings
Root Capital (2014), Improving rural livelihoods: A study of four Guatemalan coffee cooperatives	The study presented evidence of the specific benefits associated with concessional finance and Root Capital's specific approach: • It found that Root Capital's loans had the most impact when they were additional; i.e. provided to a cooperative that was otherwise unable to access a loan. The provision of a loan to the cooperative then enabled it to pay its farmers upfront, reducing the farmers' incentives to side-sell. Among the Guatemalan study groups, Root Capital was the first lender to extend trade credit to three of the four cooperatives covered. The cooperatives were unable to access capital from local banks, because they couldn't meet the collateral requirements. • Root Capital also provided training support to the cooperatives and found that this helped them with different elements of their business including creating an internal credit policy, financial planning and risk mitigation, and internal governance.
Root Capital (2013), Rapid Impact Evaluation Fruiteq - Burkina Faso	The study does not focus on providing evidence of the development impact attributable to Root Capital's specific approach (other than just providing capital). The study does note that the late provision of a loan by Root Capital created difficulties for Fruiteq in fulfilling its contracts and paying farmers on time, so the study did identify some ways in which the investor could improve its performance to increase its overall development impact.
Root Capital (2014), Case Study Tziscao — Mexico	The study finds that Tziscao had been unable to secure adequate financing prior to Root Capital's loan because of its remote location and lack of suitable collateral. Root Capital satisfied its capital financing needs and was its only source of working capital. This enabled Tziscao to transition from paying its coffee farmers at the end of the season to paying around 50% upon delivery. The study suggests that without access to this finance, Tziscao's farmers would have engaged in more side-selling.
Root Capital (2013), Rapid Impact Evaluation COOPCAB (Coffee growers cooperative of Belle Anse) – Haiti	The study doesn't provide specific evidence of the development impact attributable to Root Capital's specific approach (other than just providing capital). But, through the process of completing the impact assessment, the study notes that in the future Root Capital's Financial Advisory Services will partner with COOPCAB to strengthen the cooperative's financial management and improve its ability to support its farmers in the long-term.
Belt, Kuleshov, and Minneboo (2017), Development impact bonds: learning from the Asháninka cocoa and coffee case in Peru	The study presents a detailed case study of the use of the Asháninka development impact bond in Peru. The study suggests that the approach of utilizing development impact bonds has the potential to share the risk of impact investing between funders and the private sector; but notes that this can create significant challenges in the up-front negotiation of the contracts and also creates new challenges for monitoring the achievement of the specified targets.
Watts (2017), Investing for Impact: Finance and Farming in the Southern Highlands of Tanzania	This is a PhD thesis examining the practical experience of the impact investor Cheetah Development as they introduced concessional input credit for smallholder farmers in Tanzania. The political economy study found that, although the impact investor identified an exploitative value chain that could benefit from subsidized intervention in inputs and training, its efforts were undermined by the complex local moral relationships that underpinned local society.

Study name/ author(s)	Findings
Scales and Watts (2020), Social impact investing, agriculture, and the financialization of development: Insights from sub-Saharan Africa	The paper reviews how social impact investing is influencing new forms of agricultural development, particularly in Sub-Saharan Africa. It concludes that social impact investing is changing development policy and practice by bringing in new actors, altering the nature and activities of existing actors and producing new and uneven geographies of agricultural development.

5.2 DFIs

Six studies covered DFIs, of which four were assessed to provide medium- or high-quality evidence. These four studies are summarized in the table below.

The evidence base is not well-developed enough to make any firm conclusions, but there is some evidence presented on the specific merits of the financing approaches employed. For instance, Tyler and Dixie (2013), demonstrate the importance of providing patient capital to support agribusinesses to give them the longer-term finance needed to grow and develop. Whereas the LTS (2018) study provides some evidence that the creation of a blended finance vehicle has enabled the IFC to extend credit to agribusiness projects that it would otherwise have been unable to invest in. Similarly, the FMO (2018) study finds that the use of blended finance enabled FMO to take risks in sectors such as agriculture that they would not otherwise have been able to make.

Table 14: Studies covering impact investors/ investment

Study name/ author(s)	Findings
Massa (2011), Impact of multilateral development finance institutions on economic growth.	The study presents empirical analysis of the impact of DFI investments on economic growth in 101 countries over the period 1986-2009. The study finds that DFIs' investments lead to positive growth, in particular highlighting that DFI investments in agribusiness and infrastructure in lower-income countries are the most impactful. However, the study does not draw out distinctive elements of the DFI additionality or approach.
Tyler and Dixie (2013), Investing in agribusinesses: A Retrospective View of a Development Bank's Investments in Agribusiness in Africa and Southeast Asia and the Pacific	The study presents a number of insights on how CDC Group's approach to investing in agribusiness changed over time and the results (both financial performance and development impact). One of the main findings from the study was to emphasize the importance of patient capital. A number of CDC Group's investments that turned out to be successful over time went through difficulties early-on. CDC Group learned to adopt an approach of reviewing each investment to determine if the fundamentals were in place and whether it made sense to take a long-term view on the project and commit additional resources or to cut their losses.
LTS International Limited (UK) (2018), Program Evaluation Final Report Global Agriculture and Food Security Program (GAFSP) Private Sector Window (PrSW)	LTS completed a portfolio level evaluation of GAFSP PrSW. It found that: • The combination of services supported by the GAFSP PrSW brings significant value to the agricultural development space. • Amongst other objectives, advisory services allow the IFC to support the development of projects that are not immediately "bankable." • Blended finance and the concessional terms enable the IFC to invest in projects that are either riskier or have relatively low

Study name/ author(s)	Findings
	profitability or uncertain cash flows in the near or term and cannot be financed on purely commercial terms. • It is important that the IFC communicates a justification for the level of concessionality (e.g. the interest rate in a loan) provided in private sector window projects. A more detailed explanation of the justification for the level and type of concessionality should be possible and could better communicate the added value of the private sector window in the project.
FMO (2018), FMO Sector evaluation - agribusiness	FMO's sector evaluation was completed by its internal M&E team. They present information to suggest that FMO's investments were additional, i.e. the investees could not find alternative sources of capital: • FMO provided scarce long-term finance to support agribusinesses' investment plans. • FMO's blended finance (FMO funds alongside government funds) enabled FMO to take country risks that would not qualify for ordinary DFI finance.

5.3 Commercial banks

Four of the studies identified covered commercial banks (concessional finance programmes implemented through commercial banks). The studies consider four quite different financing programmes; three of them show that the programmes delivered positive development impacts, with two potentially identifying the additional credit that was provided to agriculture as a result of the programmes. The findings are summarized below.

Table 15: Studies covering impact investors/ investment

Study name/ author(s)	Findings
Laker-Ojok & Kayobyo (2013), An Impact Assessment of Opportunity International's Agricultural Lending Program in Uganda, Malawi, and Ghana	The research utilized surveys to assess the impact of a lending programme implemented by Opportunity Bank with funding from the Mastercard Foundation and the Bill and Melinda Gates Foundation. The study found evidence that the programme led to increased lending by the bank to support the agricultural sector, suggesting that the programme was additional. The study also found that Mastercard Foundation provided direct support to help expand the network of the bank's service points, which increased the accessibility of the bank to farmers.
Katunze, Kuteesa, Mijumbi and Mahebe (2017), Uganda Warehousing Receipt System: Improving Market Performance and Productivity: Uganda Warehousing Receipt System	The study found that the design and implementation of a pilot warehouse receipts scheme in Uganda led to poor performance and identified specific policy recommendations to facilitate a more effective roll-out of the programme in the future.
Obilor (2015), The Impact of Commercial Banks' Credit to Agriculture on Agricultural Development in Nigeria: An Econometric Analysis	The research study assesses the impact of Nigeria's Agricultural Credit Guarantee Scheme Fund using econometric techniques. The study finds that the provision of loans under the scheme led to a significant and positive increase in productivity; whilst the provision of credit to agriculture by commercial banks on their own had no direct impact on productivity. This may suggest that specific elements of the allocation of capital under the scheme relative to ordinary bank lending had an impact on productivity. (For example, funds lent to farmers by commercial banks on their own may have been used for other purposes, perhaps because

	the interest rate was higher and therefore could not be used for investment in agriculture.) But this could also have been due to other factors not covered in the study.
Egwu (2016), Impact of Agricultural Financing on Agricultural Output, Economic Growth and Poverty Alleviation in Nigeria.	The study presents empirical evidence to assess the impact of Nigeria's Agricultural Credit Guarantee Scheme Fund loan to Nigeria's agricultural sector and also the commercial banks' credit to the agricultural sector. It finds that both have had a significant and positive impact on agricultural output and reducing poverty. However, the paper does not comment on the relative merits of the two approaches.

5.4 Challenge funds

Four studies were found that present medium- or high-quality evidence for investments of challenge funds. Two of these studies focus on the Powering Agriculture Challenge fund and two on AECF, with the findings summarized in Table 16 [22].

Table 16: Studies covering challenge funds

Study name/ author(s)	Findings
SYS Pons (2016), Program-Level Mid-Term Evaluation, Powering Agriculture – An Energy Grand Challenge for Development (PAEGC); presents a mid-term review of the fund. IPE Triple Line (2018), Evaluation of Sida's Global Challenge Funds Lessons from a Decade Long Journey; presents a portfolio-level evaluation of SIDA's investments in Challenge funds, which in part focuses on Powering Agriculture.	The Powering Agriculture Challenge fund is the only global challenge fund covering both energy and agriculture and has a unique approach of targeting investments to upscale innovations. The studies also present evidence, based on stakeholder consultations, that the fund targets the main constraints to the uptake of clean energy in agriculture - lack of awareness, financial means, demand for and access to clean energy technologies, on the side of the farmers; as well as a limited client base, and lack of access to credit and opportunities for scaling-up, on the side of technological enterprises.
Tripleline (2017), Maximizing the impact of outgrower schemes	The study presents evidence of how the support of concessional finance through the challenge fund model improves incomes for smallholder farmers through different outgrower models. It also identifies a series of constraints around side-selling and working with very poor and women farmers, as well as the importance of training and monitoring the performance of the schemes.
Tripleline (2017), Opportunities for Decent Work	This study looks at how smallholder farmers working with individual companies in receipt of concessional finance through the challenge fund move towards decent work in contract-based farming arrangements. It also reviews how and the extent to which companies in AECF's portfolio create and sustain decent work directly, and it models the creation of indirect employment.

6 Conclusions and recommendations

The majority of the studies that most directly present information linking investments and development impacts are produced by the investors themselves in the form of case studies. However, most are rated as low quality using the REA because they provide little or no

[22] SYS PONS (2016) presents a mid-term review of the fund; whilst IPE Triple Line (2018) presents a portfolio-level evaluation of SIDA's investments in challenge funds, which in part focuses on powering agriculture.

explanation of the methodology employed to estimate the development impact and only limited critical assessment of the results of the investments.[23] They do, however, meet the needs of these institutions in terms of marketing and the provision of high-level findings to a non-academic readership.

A focus on the medium- and high-quality studies, particularly the case studies published by Root Capital and aBi, demonstrates that it is possible to make use of surveys and other techniques to generate interesting findings that link the provision of concessional finance to increases in farmer yields and incomes. More qualitative studies also provide an in-depth appreciation of how rural communities function and the factors that can influence the effectiveness of concessional investors in smallholder farming systems.

However, there are currently not enough high-quality published studies to provide confidence in the quality of evidence available linking the provision of concessional finance to development impacts. This precludes consideration of the effectiveness, efficiency and value-for-money of the different types of investor.

Recommendations to improve the evidence base

In framing recommendations for this review of evidence, it is important to recognize that there has recently been a significant increase in the resources allocated by donors to concessional finance investors to achieve development outcomes in the agricultural sector. The demand for accurate measurement of the impact of this approach is, therefore, a relatively new phenomenon. It is not surprising that there is both a limited amount of data and lack of substantial analysis of an academic standard.

Investors are already taking steps to improve the evidence base

Concessional finance investors are already taking steps to improve the quantity and quality of the evidence base. As part of this study, several investors were consulted to discuss their plans to produce analysis of the development impact of their investments. These are summarized in Table 17 below.

Table 17: Summary of the evidence that investors are planning to gather

Investor	Plans to produce evidence on the development impact
AgDevCo	• Every year, AgDevCo produces two qualitative case studies, which make use of evidence from primary research, to evaluate the development impact of selected investments. These studies are typically published. • AgDevCo also carries out two more comprehensive impact assessments each year. The methodology used for the analysis depends on the nature of the project. On occasion, these studies can be published, but it depends in part on the willingness of the investee company to publicize the information.
Root Capital	• Root Capital plans to expand its development impact work in the coming years, with an intention to utilize the outputs from the studies to help shape its business strategy. • Root Capital has already published a number of its development impact studies at a project level and will continue to do so. Its studies make use of a range of techniques, including case studies and performance evaluations, as well as experimental and quasi-experimental approaches. The exact method depends on the nature of the project that is being evaluated, the learning objectives and the available resources.

[23] It could be that the estimates presented in the studies are based on detailed analysis and/ or drawn from findings from surveys, but to ascertain that it would be necessary to review the investors' approach to development impact measurement in more detail.

Investor	Plans to produce evidence on the development impact
Shell Foundation	• Shell Foundation plans to work with an independent research organization to complete development impact studies on selected investments in its portfolio. These studies will be published on a selective basis, depending on the willingness of the investee to publicize the information. • In addition, it will commission development impact studies on an ad hoc basis to cover areas where it thinks the evidence base is thin.
Global Innovation Fund	• Its portfolio of financial investments in agriculture consists of six investments, of which one is completed. One of the investees has published peer-reviewed papers showing the efficacy of their remote sensing approach to measuring smallholder crop yield. GIF intends to publish learnings from the other investments as soon as is possible to do so.
CDC Group	• CDC Group has been in the process of developing a comprehensive assessment of the quality of the existing evidence base linking the provision of finance and development impact. The study is in the process of being completed and is planned for publication in the first half of 2020. • The initial findings suggest that, similar to the findings of this REA, there are significant gaps in the evidence base. Much of the evidence that is available is focused on smallholder farmers and even there some of the findings are mixed. There is very little evidence on topics such as how to integrate smallholder farmers into commercial supply chains on a sustainable basis; or the role that growth of the agribusiness sector can play in reducing African countries' reliance on food imports. • The study will be used to shape the design and implementation of CDC Group's work to produce evidence of the development impact of its investments over the coming years.
GAFSP PrSW	• GAFSP Private Sector Window's Monitoring and Evaluation Framework includes independent project level impact evaluations and poverty assessments which are more detailed than the Monitoring and Evaluation assessment that IFC carries out for its own projects
AECF	• AECF has recently completed an independent four -year evaluation of its portfolio, including quasi-experimental and case study methodologies of more than 50 investees. This should provide a wealth of rigorous data and analysis on the use of concessional finance through challenge funds

Supporting these activities, the findings of this review suggest that more research is needed. A new approach to anything should include a learning focus and, implicitly, the embracing of failure. Yet in impact investing there is strong competition for resources - between implementing partners for financing from capital providers and within particular institutional capital providers who are seeking taxpayer resources for different intervention strategies and sectors. It is an environment where very little is really known about what works and what doesn't and where the investment thesis of individual implementing partners is difficult to change in the shorter term. If implementing partners and capital providers can create an impact narrative that is accepted by stakeholders without the need to invest heavily in data collection or expose themselves to the risks of objective assessment, there is little motivation for them to create high quality, challenging analysis.

In this context, the following recommendations seek to address both the underlying drivers for generating and using quality research as well as the practical aspects of implementing research in a cost-effective manner.

1. **Improve the quality of data and primary level research by capital providers enforcing the use of minimum measurement and reporting standards for implementing partners. Research should remain 'right sized' to the needs, budgets and capacity of stakeholders, as well as to the availability of data.** There are already a range of measurement standards and broadly accepted common metrics. Initiatives such as IRIS+[24], have made a significant contribution to improving the quality of development impact reporting by impact investors, by developing standards for the definition and measurement of impact. The findings of this REA suggest that there is a need for more work to be done to ensure that the quality of impact assessments produced meet these existing standards.

   This is ultimately a question for institutions that provide concessional finance investors with funding. These funders need to provide clear guidance and the funding required to implement it - as well as enforcement of the quality of outputs - on what is acceptable evidence to back up an investor's claim over development impact. As a minimum, funders need to require users of their finance to have a peer reviewed monitoring and evaluation plan that establishes standards, processes and expected reporting outputs.

   Independent assessors, including the Independent Commission for Aid Impact (ICAI)[25] and the National Audit Office (NAO)[26], have highlighted the need for the following type of analysis and information, which could be a starting point for the evidence that is developed:

   a. **Put the investment in sufficient context**. Explain how the investment or portfolio was '*additional*'[27], fit within the investor's strategy and was linked to the Sustainable Development Goals. Explain what the initial development impact objectives or targets were, so that the results presented can be put in context.
   b. **Transparency on estimation techniques employed**. Provide more information on the methodologies employed to estimate the development impacts presented in the studies; and acknowledge some of the limitations and uncertainties within them.
   c. **How will the findings be used?** Explain how the results will be used to inform the future investment strategy of the investor; and any benefits that might accrue to the investee companies as a result of the evidence generated.

2. **Increase transparency on the studies that have been carried out.** This REA is focused on evidence that is available in the public domain. However, the authors are aware that there are a number of studies that could add to the evidence base that have not been published, including independent evaluations of impact investors. This is particularly the case where evaluations identify approaches that have been less successful – a key tool in the learning process.

   In addition, many of the summarized impact reports and papers that have been released are based on more comprehensive research. If exposed, this would strengthen the analytical rigour of the impact measurement process. This research is currently not published in full because of confidentiality issues, the perceived lack of an audience or because it contains negative as well as positive findings. Given the limitations in the

[24] https://iris.thegiin.org/standards/
[25] Independent Commission for Aid Impact (2019). CDC's investments in low-income and fragile states. A performance review.
[26] National Audit Office (2014). Oversight of the Private Infrastructure Development Group.
[27] i.e. it achieved something that would not have occurred without it.

current evidence base, greater efforts should be made to share studies of this nature in their entirety, editing for different audiences as appropriate. A good example is the work that CDC Group has done to produce the 2017 – 2023 Evaluation and Learning Programme.[28]

An additional suggestion is to commission independent reviewers to analyze the findings of the confidential evaluations and present the results and recommendations in an anonymized way.

3. **Use existing sector fora to identify and then develop plans to address critical research gaps.** Existing fora that include prominent impact investors as members, such as the Council on Smallholder Agricultural Finance (CSAF), the GIIN and the Rural and Agricultural Finance Learning Lab, could be used to identify research priorities and coordinate the dissemination of findings amongst the main protagonists operating in the concessional finance agribusiness space. Examples of the key gaps in the literature identified by leading institutions involved in supporting the growth of the agribusiness sector include the following:
    a. Recent studies, including work published by CASA[29], have identified that one of the main constraints limiting the provision of concessional finance to agriculture is the lack of a pipeline of investable SMEs for investors. In addition, these studies have indicated that incubation funds can play a critical role in supporting SMEs to increase their capacity and thus become more investable. Therefore, there is a need for evidence that considers the roles and business models that incubation funds can use to support an increase in the pipeline of investable SMEs in the agribusiness sector.
    b. The Alliance for a Green Revolution in Africa's (AGRA) *Missing middle* report[30] highlighted the important role played by SMEs in driving the growth and development of the agricultural sector across Africa at present, despite the fact that they continue to be underserved by investors. There is thus an urgent question about how this 'missing middle' is funding their growth, their current financing needs and how concessional finance providers can work most effectively with them in the future.
    c. A recent report by the FAO[31] highlights that most of the focus for providing concessional finance to agribusiness has been on developing new agribusiness investment funds. The report suggests that more evidence is required to categorize and then review the effectiveness of the different modes of investment that are available. This could be, for example, investing directly in large-scale agribusinesses that act as aggregators and provide evidence on what approaches are most suitable to different contexts.

4. **Increasing the ability of academics and independent researchers to contribute to the evidence base.** ODI's REA[32] concludes that academics and independent researchers have yet to commit their time and resources to studying the impact of

[28] CDC (updated 2019). DFID-CDC Evaluation and Learning Programme, 2017 – 2023.
[29] CASA Research Brief No. 1. Opportunities, Challenges and Evidence Needs for Investing in Smallholder Farming.
[30] Alliance for a Green Revolution in Africa (2019). Africa agricultural status report 2019. The hidden middle, A quiet revolution in the private sector driving agricultural transformation.
[31] Miller, Ono and Petruljeskov (2018). Agricultural investment funds for development. Descriptive analysis and lessons learned from fund management, performance and private–public collaboration.
[32] Attridge, Calleja, Gouett and Lemma (2019), The impact of development finance institutions: rapid evidence assessment. London: Department for International Development.

concessional finance. The REA does not explore the reasons for this, but it is likely to include the innovative nature of the sector, the limited availability of primary data upon which to base research, challenges engaging with implementing institutions due to resources, confidentiality and other reasons and the cost of engaging in research implemented across the globe. With evidence largely reliant on outputs from the implementing institutions themselves –directly or via contractors - the impartiality of much of the work that currently exists within the evidence base is under question. Whilst this does not mean that all the evidence is biased, it does mean that more caution is needed when interpreting the evidence that does exist.

There is need for investors to work more closely with academic and other independent researchers. The providers of concessional finance should, in collaboration with their funders and wider stakeholders, provide more resources to collect data appropriate to research needs and verify it through objective analysis. Leading knowledge-based funders could independently or collaboratively establish financially significant research prizes to encourage collaborative research between academia and implementing institutions.

References

AgDevCo. (2019). Transforming communities in northern Malawi; Case study of AgDevCo's transformational impact through its investment in Tropha.

AgDevCo. (2020). Stimulating the potato value chain in Zambia; Case study of the emerging transformational impact of AgDevCo's investment in Saise Farming Enterprises Limited.

AGRA (Alliance for a Green Revolution in Africa) (2019). Africa agriculture status report 2019: The hidden middle: A quiet revolution in the private sector driving agricultural transformation. Nairobi: AGRA.

Attridge, S., Calleja, R., Gouett, M. and Lemma, A. (2019) The impact of development finance institutions: rapid evidence assessment. London: Department for International Development.

Belt, J., Kuleshov, A. and Minneboo, E. (2017). Development impact bonds: learning from the Asháninka cocoa and coffee case in Peru.

CASA (Commercial Agriculture for Smallholders and Agribusiness). CASA Research Brief No. 1. Opportunities, Challenges and Evidence Needs for Investing in Smallholder Farming.

CDC. (2019). FCDO – CDC Evaluation and learning programme, 2017 – 2023 plan.

DFID. Undated. DFID Impact Fund Deep dive: Agricare insights.

DFID. Undated. DFID Impact Fund Deep dive: SEKAF insights.

DFID. Undated. DFID Impact Fund Deep dive: Sunculture insights.

Egwu, P.N. 2016. Impact of Agricultural Financing on Agricultural Output, Economic Growth and Poverty Alleviation in Nigeria. *Journal of Biology, Agriculture and Healthcare*. 6(2): 36 – 42.

FMO. (2018). FMO Sector evaluation – agribusiness.

GAFSP. (2019). Annual report 2018.

Gatsby Foundation. (2012). Impact investment: understanding financial and social impact of investments in East African agricultural businesses.

GIIN (Global Impact Investment Network). (2011). Improving livelihoods, removing barriers investing for impact in Mtanga farms.

IFAD (International Fund for Agricultural Development) (2016). IFAD Rural development report, Chapter 7 Rural finance.

IFAD (2018). Effective rural development.

IPE Triple Line. (2018). Evaluation of Sida's Global Challenge Funds Lessons from a Decade Long Journey.

IPE Triple Line, KPMG, IDAS. (2014). AECF Impact Report 2014.

Katunze, M., Kuteesa, A., Mijumbi, T. and Mahebe, D. (2017). Uganda Warehousing Receipt System: Improving Market Performance and Productivity: Uganda Warehousing Receipt System.

Laker-Ojok, R., and Kayobyo, G. (2013). An Impact Assessment of Opportunity International's Agricultural Lending Program in Uganda, Malawi, and Ghana.

LTS. (2018). Program Evaluation Final Report Global Agriculture and Food Security Program (GAFSP).

Massa, I. (2011). Impact of multilateral development finance institutions on economic growth. London: Overseas Development Institute.

Miller, C., Ono, T. and Petruljeskov, M. (2018). Agricultural investment funds for development Descriptive analysis and lessons learned from fund management, performance and private–public collaboration.

National Audit Office. (2014). Department for International Development. Oversight of the Private Infrastructure Development Group. London: DFID.

Obilor, S.I. (2015). The Impact of Commercial Banks' Credit to Agriculture on Agricultural Development in Nigeria: An Econometric Analysis. *International Journal of Business, Humanities and Technology*. 3(1): 85 – 94.

ODI (Overseas Development Institute). (2019). Impact of development finance institutions on sustainable development. An essay series. London: ODI.

Palmer, C.M., Farenholtz, P., Mecagni, L.O., Price, E. and Shah, N. 2016. Bhutan - Blending happiness and hazelnuts with finance: case study (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/177541481599999908/Bhutan-Blending-happiness-and-hazelnuts-with-finance-case-study.

Pompa, C. (2013). Understanding challenge funds. London: Overseas Development Institute.

Root Capital. (2013). Rapid Impact Evaluation COOPCAB – Haiti.

Root Capital. (2013). Rapid Impact Evaluation Fruiteq - Burkina Faso.

Root Capital. (2014). Case Study Tziscao — Mexico.

Root Capital. (2014). Improving rural livelihoods: A study of four Guatemalan coffee cooperatives.

SEAF (Small Enterprise Assistance Funds). (2011). Impact beyond investment. 2011 Development impact report..

SIFEM, CDC, Norfund, KfW, IFU. Undated. Investments in the agricultural value chain expanding the scope of environment and social due diligence.

Smith, K. and Schramm C. (2017). Five years of the AAF's technical assistance facility: Enhancing the food security impact of agri-business investments in Africa.

SYS PONS. (2016). Program-Level Mid-Term Evaluation Powering Agriculture – An Energy Grand Challenge for Development (PAEGC)".

Tyler, G. and Dixie, G. (2013). Investing in agribusiness: A Retrospective View of a Development Bank's Investments in Agribusiness in Africa and Southeast Asia and the Pacific..

World Bank. (2019). Toward Scaled-Up and Sustainable Agriculture Finance and Insurance in Uganda.

Annex 1: Database of investors

The table below presents information on the concessional finance investors that we included in our database.

Investor name	Type	Main type of financial instruments employed	Country focus	Description of activities
Powering Agriculture	Challenge fund	Debt, equity	East Africa, Latin America, Global	Fund supports the development and deployment of clean energy innovations that increase agriculture productivity and stimulate low carbon economic growth in the agriculture sector of developing countries to help end extreme poverty and extreme hunger
AECF	Challenge fund	Matching Grants and Concessional Loans	Across Africa, depending on specific competition	Fund invests in businesses that have the potential to reach smallholder farmers to improve agricultural productivity and increase household income and food security
Global Innovation Fund	Challenge fund	Grants, concessional loans, debt, equity	Global	Invests in social innovations that aim to improve the lives and opportunities of millions of people in the developing world.
Agrifi Kenya Challenge Fund	Challenge fund	Matching grants	Kenya	Contribute to improvements in the capacity of smallholder farmers/pastoralists to practice environmentally sustainable and climate-smart agriculture as a business in inclusive value chains.
OPIC	DFI	Concessional debt/ Political risk	Global	USA DFI
CDC	DFI	Concessional debt/ equity	Global	UK's DFI
Norfund	DFI	Commercial Equity (direct and indirect)	Primarily in Sub-Saharan Africa, but also in some countries in South East Asia and Central America.	Norfund is an active, strategic minority investor. It offers risk capital and expertise to help building sustainable businesses in poor countries.
FMO	DFI	Concessional debt/ equity	Global	FMO invests across the value chain - enhancing food security, supporting sustainability and promoting inclusive development.
IFC	DFI	Debt, equity, guarantees	Global	Multi-lateral DFI operates across sectors including agriculture.
GAFSP private sector window/ IFC	DFI	Concessional debt/ equity	Global	GAFSP PrSW pools development assistance resources and uses a common framework to selectively allocate them to where they are most needed, effective and catalytic, in line with country priorities and private sector opportunities.
InfraCo Asia	DFI	Project development/ early stage investing	South East Asia, South Asia	Providing leadership and capital to develop early stage infrastructure projects into viable investment opportunities
Proparco	DFI	Concessional debt/ equity	Global	Proparco supports private investments in the agricultural and agri-business sectors.

Investor name	Type	Main type of financial instruments employed	Country focus	Description of activities
Asian Development Bank	DFI	Concessional debt/ equity/ risk sharing instruments	South East Asia, South Asia	Asian multilateral development bank that operates across sectors including agriculture.
Swiss Investment Fund for Emerging Markets	DFI	Equity	SSA and South Asia	Swiss DFI with small portfolio in agriculture
KfW/ DEG	DFI	Equity	Global	Germany DFI with small portfolio in agriculture
Africa Investment Platform	DFI	Concessional debt/ equity/ risk sharing instruments	Africa Caribbean Pacific countries	To support sustainable growth in Africa, it targets investments with potential to deliver positive impact.
Boost Africa	DFI	Equity	Africa	Boost Africa is a joint initiative between the African Development Bank (AfDB) and the European Investment Bank (EIB) which aims to promote entrepreneurship and innovation across Africa in a commercially viable way, leveraging on a blending mechanism with the European Commission.
Massif	Donor fund	Concessional debt/ equity	Global	Finances local financial intermediaries and institutions that can contribute to SME development. They invest early on, taking high risks and by doing so, catalyze new investors into the financial inclusion space, which includes FMO.
Shell Foundation	Foundation	Grants	Global	Focused on improving access to energy across the agricultural value chain – food production, agri-processing, post-harvest and storage facilities.
African Agriculture Fund (AAF)	Impact investor	Debt/ equity at market rates	Africa	
AgDevCo	Impact investor	Concessional debt/ equity	SSA	Provides growth capital and specialist support to African agribusinesses.
ABC Fund	Impact investor	Concessional debt/ equity	Africa	Provides loans and equity investments adapted to the needs of rural SMEs, farmers' organizations and rural financial institutions.
Shared interest	Impact investor	Grants/ concessional debt/ equity/ commercial credit	Southern Africa	Guarantees commercial loans to low-income communities and their own financial institutions.
Rabo Rural Fund	Impact investor	Concessional debt/ equity	Global	The Rabo Rural Fund aims to close this funding gap by offering organizations and farmers access to finance, networks and knowledge.
Fairtrade access fund	Impact investor	Trade finance, working capital loans, long-term loans	Africa, Latin America, Caribbean	Supports the financial and technical assistance needs of smallholder farmers by bridging the gap in working capital and providing long term financing.

Investor name	Type	Main type of financial instruments employed	Country focus	Description of activities
Africa Food Security Fund	Impact investor	Concessional debt/ equity	SSA	Invests in potential high-growth SMEs operating in the food and agriculture value chains across SSA.
Root Capital	Impact investor	Concessional debt/ equity	Latin America, sub-Saharan Africa, and Southeast Asia	Root Capital invests in the growth of agricultural enterprises that support these smallholder farmers.
Alterfin	Impact investor	Loans near market rates	Global	A Belgian social investor that, since 1994, raises capital to invest it in developing countries via microfinance institutions and producers' organizations.
Moringa	Impact investor	Equity/ Quasi-equity	Africa and Latin America	Moringa is an investment fund which targets agroforestry projects located in Latin America and Sub-Saharan Africa.
Fund for Agricultural Finance in Nigeria (FAFIN)	Impact investor	Equity, debt, quasi-equity	Nigeria	Agriculture-focused private equity fund that provides tailored investment capital and technical assistance to agricultural SMEs across all regions in Nigeria using quasi-equity, equity and structured debt instruments.
The Nisaba Fund	Impact investor	Equity	Africa	The fund aims to increase capacity, promote more equitable value chain diversification, create local value addition, foster innovation, streamline distribution for smallholders & their communities and generally improve food security in Africa.
Fanisi	Impact investor	Private equity and venture capital		A US$50M fund which makes direct investments in businesses with potential for substantial growth.
Smallholder finance facility	Impact investor	Conditional grants		Invests in value chains, co-financing smallholder farmers – together with supply chain actors – in order to improve their productivity and livelihoods.
Grassroots business fund	Impact investor	Equity, debt and quasi-equity	Global	Grassroots Business Fund (GBF) set up both a non-profit business advisory service as well as a for-profit private investment fund (GBI-I).
African Agriculture SME Fund (AAF) - CLOSED FUND	Impact investor	Equity	Africa	The AAF-SME fund provides finance to enterprises active in the primary, secondary and tertiary sector along the agricultural value chains in Africa
Acumen fund	Impact investor	Patient capital, early-stage investment	Global	Provides farmers with access to services and products that improve productivity, income and access to markets
LafCo	Impact investor	Working capital loans and trade finance (Some local currency loans)	14 countries across SSA	LAFCo provides loans to agricultural SMEs throughout SSA that work directly with smallholder farmers, with a primary focus on businesses that advance local and regional food security.
Voxtra	Impact investor	Equity, mezzanine, quasi-equity	Kenya, Uganda, Tanzania	Invests in capital-constrained agribusinesses which play pivotal roles in improving the livelihoods of smallholder farmers.
Africa Seed Investment Fund	Impact investor	Concessional debt/ equity	Kenya, Tanzania, Uganda, Rwanda, Ethiopia,	Specialist agriculture investment firm that has been investing in small and medium sized East African agribusinesses.

Investor name	Type	Main type of financial instruments employed	Country focus	Description of activities
			Mozambique, Malawi and Zambia	
Yield Uganda Investment Fund	Impact investor	Concessional debt/ equity	Uganda	Specialist agriculture investment firm that has been investing in small and medium sized East African agribusinesses.
SME Impact Fund	Impact investor	Concessional debt/ equity	Tanzania	Delivering consultancy and financial services like value chain consultancy, project management, training, business development and enterprise financing.
Injaro Agricultural Capital Holdings Limited	Impact investor	Commercial loans/ equity	Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger and Sierra Leone	Injaro makes investments in debt, quasi-equity, and equity in small-and medium-sized enterprises along the agricultural value chain in designated countries of West Africa.
ResponsAbility Investments	Impact investor	Private equity	Kenya, India	
Equity for Africa Tanzania	Impact investor	Lease finance	Tanzania	SME equipment leasing company in Tanzania. EFTA was set up to bridge the financing gap between $2,000 and $50,000. EFTA provides lease finance for equipment, which is repayable over three years.
Rural Impulse Fund II	Impact investor	Debt/ equity	Global	Invests in microfinance institutions that offer financial services in disadvantaged rural areas through debt and equity investments.
Arise Invest	Impact investor	Equity and mezzanine	SSA	Arise is a leading African investment company backed by three reputable cornerstone investors, namely Norfund, Rabobank, and FMO.
Programme for Rural Outreach of Financial Innovations and Technologies	Impact investor	Risk sharing and credit risk instruments	Kenya	Works to increase the incomes of smallholders involved in livestock by increasing their production, productivity and improve marketing in various rural enterprise sectors:
Business Partners International	Impact investor	Local currency finance	Kenya, Malawi, Namibia, Rwanda, Uganda, and Zambia	Provides finance to SMES across multiple sectors including agriculture.
Aventura	Impact investor	Greenfield, early stage and growth stage investments	West Africa	Focus on companies that provide value chain services. Investments include greenfield, early stage and growth stage investments.
Tana capital	Impact investor	Private equity	SSA	An evergreen Africa-focused investment company founded by E. Oppenheimer & Son and Temasek.
African Risk Capacity Insurance Company	Insurer	Insurance products	33 countries across Africa	Specialized Agency of the African Union established to help African governments improve their capacities to better plan, prepare, and respond to extreme weather events and natural disasters.

Investor name	Type	Main type of financial instruments employed	Country focus	Description of activities
IFAD	MDB	Concessional debt/ equity	Global	UN's international finance institution focused on agriculture.
Oiko Credit	MFI	Concessional debt/ equity	Global	Supports small-scale farmers by providing access to finance and capacity building for agricultural cooperatives, producers, processors and distributors.
Africa Agriculture and Trade Investment Fund (AATIF)	Multi-donor Trust Fund	Concessional debt/ equity/ risk sharing instruments	Africa	AATIF promotes investments along the entire agricultural value chain. The fund tries to improve agricultural practices to increase crop yields or assist in building storage and processing capacity to broaden local value addition.
African Guarantee Fund	African guarantee provider	Guarantees	Africa	Supports African SMEs by providing guarantees either directly or through local financial intermediaries.
Incofin	Impact Investor	Concessional debt/ equity/ technical assistance	Global	Invested to date $2bn in agriculture and access to finance private sector enterprises providing a mixture of capital and technical assistance.
aBi	Multi-donor capital and advisory provider	Concessional debt / technical assistance	Uganda	Provides a mixture of advisory and funded and unfunded concessional finance products subsidized by donors to agricultural SMEs.
IDH	Impact Investor	Concessional debt / technical assistance	Global	Provides a mixture of technical assistance and grant aid, but from 2020 will also be including grants as subordinated debt in order to leverage greater investment from the private sector.

Annex 2: Database of studies passing inclusion phase

Author(s)	Title	Publication year	Quality of study	Type of investor(s) covered	Farmers' yields	Jobs/ decent jobs	Farmers' incomes	Number of SHFs reached	SHFs linked to markets	Economic transformation	Economic growth	Gender impacts	Other
Root Capital	Improving rural livelihoods: A study of four Guatemalan coffee cooperatives	2014	Medium	Impact investor	Yes		Yes						
Root Capital	Rapid Impact Evaluation Fruiteq - Burkina Faso	2013	Medium	Impact investor			Yes	yes					
Root Capital	Case Study Tziscao — Mexico	2014	Medium	Impact investor			Yes						Yes
Belt, Kuleshov and Minneboo	Development impact bonds: learning from the Asháninka cocoa and coffee case in Peru	2017	Medium	Impact investor	Yes		Yes						
SEAF Investment fund	Impact beyond investment, 2011 Development impact report	2011	Low	Impact investor	Yes	Yes	Yes				Yes		
Root Capital	Rapid Impact Evaluation COOPCAB - Haiti	2013	Low	Impact investor	Yes		Yes						
AgDevCo	Transforming communities in northern Malawi case study of AgDevCo's transformational impact through its investment in Tropha	2019	Low	Impact investor		Yes	Yes	Yes	Yes	Yes		Yes	
AgDevCo	Stimulating the potato value chain in Zambia: Case study of the emerging transformational impact of AgDevCo's investment in Saise	2019	Low	Impact investor		Yes	Yes	Yes	Yes	Yes		Yes	

Author(s)	Title	Publication year	Quality of study	Type of investor(s) covered	Farmers' yields	Jobs/ decent jobs	Farmers' incomes	Number of SHFs reached	SHFs linked to markets	Economic transformation	Economic growth	Gender impacts	Other
	Farming Enterprises Limited												
Gatsby Foundation	Impact investment: understanding financial and social impact of investments in East African agricultural businesses	2012	Low	Impact investor		Yes	Yes						
DFID Impact Fund	Deep dive: Agricare insights		Low	Impact investor	Yes								
DFID Impact Fund	Deep dive: SEKAF insights		Low	Impact investor	Yes		Yes						
DFID Impact Fund	Deep dive: Sunculture insights		Low	Impact investor	Yes								
Smith and Schramm	Five years of the AAF's technical assistance facility: Enhancing the food security impact of agri-business investments in Africa	2017	Low	Impact investor									Yes
Massa	Impact of multilateral development finance institutions on economic growth.	2011	High	DFI							Yes		
Tyler and Dixie	Investing in agribusinesses: A Retrospective View of a Development Bank's Investments in Agribusiness in Africa and Southeast Asia and the Pacific	2013	High	DFI	Yes		Yes						Yes
LTS International	Program Evaluation Final Report Global	2018	High	DFI	Yes			Yes					

Author(s)	Title	Publication year	Quality of study	Type of investor(s) covered	Farmers' yields	Jobs/ decent jobs	Farmers' incomes	Number of SHFs reached	SHFs linked to markets	Economic transformation	Economic growth	Gender impacts	Other
Limited (UK)	Agriculture and Food Security Program (GAFSP)												
FMO	FMO Sector evaluation - agribusiness	2018	Medium	DFI		Yes							
DEG	Virú contributes to Peru's sustainable development.	2018	Low	DFI		Yes	Yes			Yes			
Palmer, Farenholtz, Mecagni, Price and Shah	Bhutan: Blending Happiness and Hazelnuts with Finance	2016	Low	DFI		Yes	Yes	Yes	Yes			Yes	
Laker-Ojok and Kayobyo	An Impact Assessment of Opportunity International's Agricultural Lending Program in Uganda, Malawi, and Ghana	2013	High	Commercial bank									
Katunze, Kuteesa, Mijumbi and Mahebe	Uganda Warehousing Receipt System: Improving Market Performance and Productivity: Uganda Warehousing Receipt System	2017	High	Commercial bank				Yes					
Egwu	Impact of Agricultural Financing on Agricultural Output, Economic Growth and Poverty Alleviation in Nigeria.	2016	High	Commercial bank							Yes		
Obilor	The Impact of Commercial Banks' Credit to Agriculture on Agricultural Development in	2015	Medium	Commercial bank	Yes								

Author(s)	Title	Publication year	Quality of study	Type of investor(s) covered	Farmers’ yields	Jobs/ decent jobs	Farmers’ incomes	Number of SHFs reached	SHFs linked to markets	Economic transformation	Economic growth	Gender impacts	Other
	Nigeria: An Econometric Analysis												
SYS PONS	Program-Level Mid-Term Evaluation, Powering Agriculture – An Energy Grand Challenge for Development (PAEGC)	2016	High	Challenge Fund	Yes							Yes	
IPE Triple Line	Evaluation of Sida’s Global Challenge Funds Lessons from a Decade Long Journey	2018	High	Challenge Fund	Yes								
IPE Triple Line, KPMG IDAS	AECF Impact Report 2014	2014	Low	Challenge Fund		Yes	Yes	Yes				Yes	
AATIF	Impact brief Agrivision Zambia	2017	Low	Multi-donor trust fund	Yes	Yes							
aBi	Annual Report 2018	2019	Low	Impact investor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
AECF/ Triplieline	Maximizing the impact of outgrower schemes	2017	Medium	Challenge fund			Yes	Yes					
AECF/ Tripleline	Creating opportunities for decent work in AECF’s agribusiness portfolio	2017	Medium	Challenge fund		Yes	Yes		Yes				
aBi	Evaluation report of aBi finance	2017	Medium	Impact investor			Yes	Yes			Yes		
Incofin	Impact report 2018-19	2019	Low	Impact investor		Yes	Yes	Yes					
Winget, Lamb and Wheatley	Root Capital: Measuring the Effects of Impact Investing on Impoverished Rural Communities	2017	Low	Impact investor			Yes	Yes		Yes			

Author(s)	Title	Publication year	Quality of study	Type of investor(s) covered	Farmers' yields	Jobs/ decent jobs	Farmers' incomes	Number of SHFs reached	SHFs linked to markets	Economic transformation	Economic growth	Gender impacts	Other
Shared Interest	Social Accounts: Investing in a fairer world	2019	Low	Impact investor			Yes	Yes	Yes	Yes			Yes (CO^2 calc)
Watts	Investing for Impact: Finance and Farming in the Southern Highlands of Tanzania	2017	High	Impact investor	Yes	Yes	Yes	Yes	Yes			Yes	
Phatisa	African Agriculture Fund Development Impact Report	2018	Low	Impact Investor	Yes	Yes	Yes	Yes	Yes				
Scales & Watts	Social impact investing, agriculture, and the financialization of development: Insights from sub-Saharan Africa	2020	High	Impact Investor						Yes	Yes		

Annex 3: Quality assurance process for the REA

To quality assure the findings of the REA, the following steps were taken:

- A random sample of the studies were selected for assessment by a second author to check for consistency of the scoring.
- The second author also carried out a double check of the search process to identify additional studies to include within the evidence base.

The findings of the quality assurance process are summarized below.

Review of the scoring of the studies

The following randomly selected reports were selected to be reviewed for a second time

Author(s)	Study name
Root Capital	Rapid Impact Evaluation Fruiteq - Burkina Faso
AgDevCo	Transforming communities in northern Malawi case study of AgDevCo's transformational impact through its investment in Tropha
DFID Impact Fund	Deep dive: Sunculture insights
LTS International Limited (UK)	Program Evaluation Final Report Global Agriculture and Food Security Program (GAFSP) Private Sector Window (PrSW)
FMO	FMO Sector evaluation – agribusiness
Massa	Impact of multilateral development finance institutions on economic growth.
Laker-Ojok and Kayobyo	An Impact Assessment of Opportunity International's Agricultural Lending Program in Uganda, Malawi, and Ghana

They were appraised using the framework presented in Section 3.6 of this report.

The following table summarizes the scoring from the sample of studies randomly selected for the double-check.

Report	Conceptual framework	Methodology and data	Validity	Analysis and results	Total
Root Capital	2	5	2	1	10
AgDevCo	4	6	1	2	13
DFID Impact Fund	3	4	1	1	9
LTS International	6	8	3	2	18
FMO	4	4	1	1	10
Massa	6	9	3	2	20
Laker-Ojok	5	8	2	3	18
Overall	**4.28**	**6.28**	**1.85**	**1.71**	

The following table summarizes the scoring from the original analysis.

Report	Conceptual framework	Methodology and data	Validity	Analysis and results	Total
Root Capital	4	5	2	2	13
AgDevCo	3	4	1	2	10
DFID Impact Fund	3	4	1	1	9
LTS International	5	7	2	3	17
FMO	3	6	1	2	12
Massa	6	9	3	3	21
Laker-Ojok	5	9	2	3	19
Overall	**4.14**	**6.28**	**1.71**	**2.14**	

The scoring of the sample between the original authors and the reviewer are very similar, due mostly to the common opinion on the higher-ranking studies. There is a minor difference of opinion in the scoring of the analysis and results criterion, where the assessment could become more subjective. The studies designed for a presentational purpose in particular do not express appropriate limitations and caveats on the research.

Double-check of the search process

A selection of the main databases was re-reviewed, along with a sample of the institutions selected for inclusion in the study as providers of concessional capital. In addition, a number of other websites were identified through direct consultation with key contacts involved in the research into concessional finance space.

The organizations reviewed included:

- **Mastercard Foundation** – Digital finance evidence gap map. The establishment of digital finance has been extensively supported by concessional finance and there are some research papers which link digital finance to agriculture. There is no explicit link, however, to the sources of financing and therefore the inclusion of these studies is questionable. MCF has funded challenge funds but only with purely grant assistance which does not fall within the scope of the study.
- **AGRA** – Most of the research is on technical aspects of agriculture interventions rather than on the development impact specifically. However, there is a paper from Enclude on technical assistance and blended finance that would be relevant.
- **Rockefeller Foundation** – provides funding to organizations such as AGRA which also generate research. RF has provided a range of support to the food sector particularly, both through its recent programmes on reducing food waste but also on its new programme for protective foods. The latter includes concessional financing, but has not yet started
- **AATIF** – include three studies on individual investments, two baselines and one ex post. The latter is relevant to this study.
- **IFAD** – a number of evaluations of projects that support the establishment of access to finance infrastructure, but none that contain the provision of concessional finance.
- **AECF** – provides concessional finance to agribusiness and produces an annual impact report – 2014 is included in the initial work, but 2015, 2016 and 2017 also exist. A number of learning studies are also available – one on decent work and one on outgrower schemes are included – but additional studies also exist that have not yet been published, including an extensive evaluation produced from 2014-2019.
- **One Acre Fund** – OAF uses concessional finance in operating its business of working with smallholders. It produces a wide range of studies on impact using extensive real data collected in the field. One overarching report is included in the study, but more are available covering a range of more granular research aspects.
- **ResponsAbility** – invests directly in agribusiness using concessional capital but produces narrative stories that whilst illustrative are not based on any analytical process.
- **Pearl Capital Partners** – funded by a range of multilateral donors and foundations, PCP launched a series of agribusiness funds investing across Africa. However, they do not undertake any impact reporting themselves. Some of their contributing donors do, however – an evaluation by Steward Redqueen of ASIF exists.

- **Business Partners Africa** – manages an investment fund on behalf of CDC Group, but neither body presents any analysis of impact on their websites.
- **Open Capital Partners** – is an emerging African based consulting and fund managing company working with Small and Growing Businesses. However, its published research is limited to promotional summaries on its website.
- **The Mix** - a well-established coordination institution for access to finance in the development context. It has a section agricultural finance detailing its relationship with CSAF (reviewed separately in the report) but no documents contained within it.
- **Shared Interest** – An organization specifically established (in part by Oikocredit) to provide capital to agriculture and SMEs to enable people to trade their way out of poverty.

The following databases were reviewed:

- **CSAF** - Council on Smallholder Agricultural Finance – provides a dataset analyzed by The Mix comprising all of the loan and other concessional financing provided to SMEs by its 12 members. However, this principally covers the types of crops investing in, locations etc. and no attempt to consolidate any assessment of impact (although CSAF as an institution have been considering this recently). Any impact reporting is left to the individual members, the relevant of whom have been included in this review.
- **Google scholar** – was re-reviewed to seek additional evidence around specific intermediaries, such as impact investors and challenge funds, which are frequently strongly associated with concessional finance. A limited number of additional studies were identified and assessed for relevance – most were not specifically targeting agriculture and therefore not relevant for this study.
- **The GIIN** – was re-reviewed seeking specific information on impact investing in the agriculture sector. One further study was identified for inclusion.

Additional studies were selected from both a review of the websites and databases used in the original study but also from consulting with a number of third-party consultants and researchers working in the development finance space. Only 11 additional studies were identified and assessed positively against the inclusion criteria, these were added to the database (summarized in Annex 2) and incorporated in the REA presented in the report.

Commercial Agriculture for Smallholders and Agribusiness