

The state of the agri-SME sector – Bridging the finance gap





The CASA programme is a flagship programme of the UK Foreign, Commonwealth and 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.

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About the authors: ISF Advisors is the leading strategic and financial advisory group committed to mobilizing capital for a more sustainable, equitable, and productive global food system. ISF's research on agriculture and food systems generates ideas and insights to inform investment strategy for public and private funders.

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# **Table of contents**

$\vdash$	cecuti	ve summary	4				
Αc	cknov	vledgements	8				
1	Intro	oduction: The current state of the sector	9				
	1.1	The context: A maturing market	9				
	1.2	A USD 106 billion sub-Saharan Africa and Southeast Asia agri-SME finance gap	10				
	1.3	A complex market that struggles to clear	13				
2	A dy	namic approach to understanding the agri-SME demand for finance	16				
	2.1	Understanding the role and challenges of agri-SMEs in food systems	16				
	2.2	Characterising agri-SMEs	20				
	2.3	Understanding agri-SME investment profiles	22				
	2.4	Defining, characterising, and sizing agri-SME financing needs and affordability	24				
3	Meeting demand: How agri-SMEs are currently financed today						
	3.1	An overview of the finance market	29				
	3.2	A sizing and mapping of agri-SME funding flows by channels	31				
	3.3	Understanding the finance gap in a new way	36				
4	Cap	italising financial service providers and blended finance as a tool to					
	unlo	ck agri-SME finance	39				
	4.1	Background: blended finance to mitigate bottlenecks in the agri-SME					
		finance market	39				
	4.2	A more sophisticated landscape of approaches to catalyse					
		sub-commercial finance	40				
	4.3	Using specialised funds as a channel of blended finance	44				
	4.4	Reflecting on the role and positioning of public capital providers	45				
5	Con	clusions and recommendations: A long-term change agenda	50				
RI	EFEF	RENCES	56				
Αŗ	pend	lix I: Channel overviews	56				
Αŗ	Appendix II: Sizing methodology						
Αŗ	pend	lix III: Interview list	66				
FI	GUR	ES					
Fi	gure	1: SSA and SEA agri-SME finance gap	10				
Fi	Figure 2: Primary agri-SME finance objectives						
Fi	Figure 3: Market clearing model						
Fi	gure 4	4: Comprehensive agri-SME taxonomy	17				
Fi	gure	5: Overview of key climate responses	19				
	_	6: Agri-SME growth pathways	20				
Fi	gure	7: Agri-SME investment profiles	20				
Fi	gure	8: Agri-SME financing needs	27				
Fi	gure	8b: Agri-SME financing needs	27				
	_	9: Agri-SME finance market structure	29				
	-	10a: FSP alignment with agri-SME segments and needs	31				
	_	10b: FSP alignment with agri-SME segments and needs	32				
	_	11: Blended finance approaches	41				
	_	12: Landscape of active blended finance approaches	43				
Fig	gure	13: Specialised fund taxonomy	44				

# **Executive summary**

The last decade has seen increasing recognition by policymakers, capital providers, and finance practitioners of the vital role played by agricultural small- and medium-sized enterprises (agri-SMEs) in agricultural and food systems in developing countries, as well as their key challenge of limited access to finance. New lexicon has entered the mainstream to capture this recognition, with terms such as the "hidden middle" being introduced by a 2019 AGRA report to highlight the critical role of agri-SMEs in growing markets and their concurrent lack of access to finance and supporting services. The specific focus on the needs of agri-SMEs as a sub-segment of the broader SME finance agenda and the "missing middle" popularised by organisations such as the IFC and ANDE is important as these needs—and the dynamics around providing finance—have unique dimensions.

While many of these dynamics have been deeply studied in the context of specific lending models, this report takes stock of the increasingly pluralistic landscape of agri-SME finance in sub-Saharan Africa and Southeast Asia. Our aim is to establish a new perspective on the market overall—sizing and segmenting the market in new ways, reflecting on the rapidly accelerating imperative around climate, and identifying new priorities for action. We believe that this periodic stocktaking offers an opportunity to both understand the current state of the sector in new ways and also to think broadly about what is needed to move the agri-SME finance agenda forward.

# Understanding agri-SME finance in a new way

In sub-Saharan Africa and Southeast Asia, there is an estimated USD 160 billion demand for financing by ~220,000 agri-SMEs. However, we estimate that only USD 54 billion (~34%) is currently being met through formal finance channels—leaving an annual financing gap of USD 106 billion. At a regional level, the annual financing gap is USD 74 billion for ~130,000 agri-SMEs in sub-Saharan Africa (~84% of demand) and USD 31 billion for ~90,000 agri-SMEs in South Asia (~45% of demand). These headline estimates are large, but reflect in numbers what most practitioners have experienced through working with agri-SMEs.

Digging beyond numbers, this report introduces a more specific view of where the market for agri-SME finance is (and isn't) clearing. Looking into the dynamics around supply and demand, a clear set of tiers emerges: from the relatively small market for commercial capital to the significant market for sub-commercial capital incorporating a range of different subsidies, to the large market gap that is only partially served by informal finance. At a simple level, the agri-SME finance agenda aims to graduate agri-SMEs through these layers of finance, using scarce subsidies in the sub-commercial market to grow agri-SMEs into more commercially viable prospects. However, in reality, many agri-SMEs are never able to make a complete graduation to fully commercial capital.

The underlying challenges to profitably providing agri-SME finance have been extensively catalogued in other reports<sup>1</sup>, including dynamics around high costs to serve, high risk in agricultural markets, and low levels of investment readiness among potential borrowers. To add new perspective to this research base, this report breaks down the market in a more comprehensive and holistic way to show where finance is specifically flowing, via specific types of products from specific types of funders to specific types of agri-SMEs.

<sup>1</sup> For instance in reports published by Aceli Africa or IFC

The nuances of these flows are characterised and analysed at some depth in this report, introducing a range of new segmentations on the supply and demand sides of the market to understand where the market is clearing in different ways. At a higher level, this analysis reveals:

- At the "top of the market," a small set of high-growth and/or high-margin agri-SMEs, such as agtechs, are attracting USD ~1-2 billion per year in higher-risk venture debt and equity financing from private equity and venture capital funds to support aggressive expansion.
- In the "middle of the market," a larger set of relatively mature, moderate growth agri-SMEs are being served primarily by commercial banks (USD ~40 billion), non-bank financial institutions (USD ~6 billion), and impact funds (USD ~1-3 billion) with debt finance to support their ongoing operations and gradual growth.
- At the "bottom of the market" a range of lower-growth, less mature, and less profitable agri-SMEs
  are being served primarily by public development banks (USD ~4 billion) and social lenders
  (USD ~4 billion) primarily with short-term trade finance and working capital loans.

Within this overall snapshot of the market, two dynamics emerged in stark relief: i) the absence of any major flows of climate finance for agri-SMEs relative to the known dimensions of the emerging climate crisis; and, ii) the importance of subsidy and blended finance to the vast majority of current flows of finance in the market. Both of these aspects are explored in this report, with some key highlights included in the summary below.

### The climate crisis, an emerging imperative in an established market

Following COP26 and the range of new projections from the scientific and academic community on the impacts of climate change, there is little doubt that agri-SMEs operating in agricultural markets will be significantly affected in the coming years. Agri-SMEs in Africa and South Asia are not large contributors to climate change but will play an important role in mitigation and developing nature-based solutions. They will also need to invest heavily in adapting to the effects of climate change in the coming years. Analysis of the latest data from the Climate Policy Initiative reveals that only 1.5% of global climate finance (USD ~10 billion) is channelled to small-scale agriculture, with only 7% of that (USD ~700 million) being channelled to value chain actors, many of which are general rural community initiatives and small-scale farmers. The vast majority of this funding (> 95%) is provided from public sources. In short, very little funding is being specifically channelled to agri-SMEs for climate-related investments.

As the need to mobilise climate adaptation funding for smallholder farmers and agri-SMEs has become more urgent, there has been a concurrent realisation that the infrastructure to effectively channel this finance where it needs to go does not exist. As referenced in this report, many funders are scrambling to develop the right strategies, with many being accused of greenwashing existing portfolios. At the same time, donors and development practitioners are realising that new models and approaches are needed to distinguish what investments have what effects on mitigation, adaptation, and nature-positive solutions. As is outlined in the recommendations of this report, we believe a foundational infrastructure must be quickly established in the next 3-5 years to greatly increase the financing available to agri-SMEs for climate-related investments. By infrastructure, we mean specifically establishing a taxonomy<sup>2</sup> setting out what constitutes environmentally sustainable economic investments in agriculture, developing a pipeline of agri-business deals for investment, and integrating climate expertise into all channels of agri-SME finance.

<sup>2</sup> Note: The European Union defines taxonomy as a "classification system, establishing a list of environmentally sustainable economic activities".

# Getting smarter about subsidy in the sub-commercial market

As described in this report, blended finance is a large and significant part of the sub-commercial tier of agri-SME finance through every channel, from commercial banks to state banks and social lenders. Within the sub-commercial market there is a spectrum of subsidy levels, from the small amounts of subsidy provided by development finance institutions (DFIs) to increase the risk appetite of local commercial banks to the large amounts of subsidy used by impact funds or state banks that often provide support beyond concessional finance. As described in section 4 of this report, the landscape of blended finance approaches that deploy scarce subsidies has become more sophisticated. More approaches are being used and deployed in combination than ever before.

The challenge for the sector now is to more fully unpack what blended finance approaches are being used and establish more evidence around what works and what should be scaled up. This report takes the first step in this direction by providing a current view of the landscape of blended finance approaches, the use of specialised funds, and the role and positioning of public capital providers such as DFIs, international finance institutions (IFIs), and regional development banks. However, this is only a first step. To truly establish industry benchmarks around blended finance efficiency and efficacy, we must compare the amount of subsidy deployed by different sub-commercial, blended finance approaches while also taking into account the anticipated impact—in other words, "the impact case for going downmarket with more subsidised finance."

We believe that, for the sector to make substantive progress in the more efficient and effective use of subsidy to facilitate sub-commercial lending, a more sophisticated way of comparing the subsidy to impact tradeoffs inherent in different approaches and models is imperative. This report does not set out to fully establish this comparison model (and the data that would be needed) but offers a first step in laying out the different blended finance approaches and examples that can be observed in the market, as well as the current ways in which capital is allocated by some of the leading public sources.

### Moving forward with new clarity

In this report, we present **four long-term change priorities** that we see as crucial to systematically closing the USD 106 billion agri-SME financing gap over time:

- 1. Change priority 1: Intentionally growing larger numbers of agri-SMEs into commercially investable prospects to anchor local bank markets for finance. While this is widely recognised as the implicit goal of the agri-SME finance agenda, this report contends that more targeted approaches are needed for: i) intentionally growing agri-SMEs within specific markets and development programmes; ii) closing the long-term debt and equity finance gap to provide the right growth capital for transitioning agri-SMEs; and iii) targeted government support and consistent agricultural development policy to support the emergence of large agri-enterprises that can anchor markets.
- 2. Change priority 2: Developing capacity, incentives, and infrastructure for local banks and funds to profitably serve smaller, less commercial agri-SMEs over time. In the long term, this report advocates that only local financial institutions have the right capital (locally denominated), proximity to clients, and cost structure to profitably serve agri-SMEs. Developing these local financial institutions and establishing viable models for financing less commercially attractive agri-SMEs over time will require continued investments in: i) more local coordination and effective investment intermediation; ii) intentional long-term subsidy; and iii) the potential of agtech to lower the cost to serve clients.
- 3. Change priority 3: Making blended finance more efficient and effective. With scarce public and philanthropic funds to support the critical sub-commercial agri-SME finance market, blended finance needs to get more efficient and effective. While that challenge exists across sectors, the thought and evidence required to achieve these goals in agri-SME finance is very specific and includes: i) developing a more sophisticated view of the market and shared learning agenda; ii) catalysing a new commitment by leading donors, DFIs, development banks, and IFIs to become more transparent, collaborative, and committed to smarter subsidy; and iii) establishing more consistent taxonomies, data, and reporting requirements.
- 4. Change priority 4: Building the infrastructure around climate finance. 2021 marked a noticeable shift in the dialogue and impetus around climate change. Over the next five years it is imperative for agri-SME financing that: i) new models and taxonomies are quickly developed and used; ii) large donor investments are made to create a viable pipeline at scale; and iii) climate expertise is integrated into all channels of agri-SME finance.

More detail around these recommendations can be found in the conclusions and recommendations section of this report.

The change priorities outlined above are expansive in scale and scope, and will require coordinated action from actors across the agri-SME finance ecosystem. We hope that this report provides new insights, highlights where more research is needed, and can stimulate new dialogue across the sector.

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# 1 Introduction: The current state of the sector

### 1.1 The context: A maturing market

Over the last decade, policymakers and practitioners looking to transform global food systems have paid increasing attention to the vital role of agricultural small- and medium-sized enterprises (agri-SMEs). In the emerging markets of sub-Saharan Africa and Asia, new funding structures and specialised financial intermediaries, such as IDH FarmFit and AgDevCo, have emerged, complementing a financing landscape previously dominated by local banks and government-backed lending programmes. This evolution has been guided, in part, by increasingly sophisticated thinking about the use of subsidy (i.e., blended finance), segmentation of agri-SMEs and investment portfolios, and holistic approaches to investing alongside market development initiatives. A range of actors—such as Convergence, ISF Advisors, the Global Impact Investing Network (GIIN), Aspen Network of Development Entrepreneurs (ANDE), the Council on Smallholder Agricultural Finance (CSAF), Smallholder Agri-SME Finance and Investment Network (SAFIN), Alliance for a Green Revolution in Africa (AGRA), Omidyar Network (around catalytic capital in particular), and the Commercial Agriculture for Smallholders and Agribusiness programme (CASA)—have played key roles in building up this level of sophistication, alongside key investors and funders.

However, while important progress has been made in broadening and deepening the sector's approach to agri-SME finance, access to finance remains a significant problem. **We believe that critical gaps remain** that reduce transparency, collaboration, and identification of opportunities. These gaps include:

- A holistic, ecosystem-based view of the agri-SME finance landscape;
- Awareness on the part of key investors, funders, and intermediaries regarding the scale or scope of existing interventions;
- Systematic cataloguing, evaluation, and comparison of different investment positioning and blending approaches; and
- Consistent language around agri-SME finance<sup>3</sup>.

With climate change prompting new thinking about how food systems and economies should adapt, agri-SMEs are in more need of accessible and affordable financing than ever before. Understanding the agri-SME finance market is vital to sustaining these businesses and growing their potential to help communities adapt to the challenges ahead. Building on previous ISF "State of the Sector" reports, CASA and ISF, with support from FCDO and USAID, seek to improve investor understanding of the state of agri-SME finance in the developing country context—with a particular focus on financing channels, instruments, and mechanisms in sub-Saharan Africa and Southeast Asia.

<sup>3</sup> SAFIN and IFAD recently published an agri-SME taxonomy, prepared by ISF Advisors, that lays the foundation for consistent language, and this study builds upon that taxonomy.

# 1.2 A USD 106 billion sub-Saharan Africa and Southeast Asia agri-SME finance gap

In 2019, ISF Advisors published its landmark "State of the Sector" report, Pathways to Prosperity, in collaboration with the Rural and Agricultural Finance Learning Lab (RAFLL).<sup>4</sup> That report provided a snapshot of the rural and agricultural finance market, with a focus on smallholder farmers. In particular, it highlighted a funding gap—in Latin America, sub-Saharan Africa, and South & Southeast Asia—estimated at USD 170 billion for smallholder farmers (with financiers meeting only USD 70 billion of the annual USD 240 billion demand). The report also referenced the lending market to agri-SMEs—while acknowledging that a comprehensive sizing of the demand and supply for agri-SME finance did not exist.

Two years later, we have determined that an estimated 220,000 agri-SMEs in sub-Saharan Africa and Southeast Asia (excluding India) have a total financing need of USD 160 billion. With limited data available, these estimates have been created from the latest agri-SME surveys that self-report financing needs across different markets in Africa and Southeast Asia.<sup>5</sup> On this basis, we describe the estimates in this report as "articulated demand"—of which only a subset is addressable and met by a source of financing.

Of the total USD 160 billion in demand for agri-SME financing, we estimate that only USD 54 billion (34%) is currently being met through formal finance channels creating an annual formal financing gap of USD 106 billion.<sup>6</sup>

### **CALL-OUT: A NOTE ON THE NUMBERS**

The overall financing demand estimation cited in this report is based primarily on analysis of the IFC and SME Finance Forum's "MSME Finance Gap Database," which provides a top-line estimation of the number of MSMEs in the world, as well as their existing demand for, and supply of, financing. Two key assumptions were made to arrive at an agri-SME-specific demand figure: 1) the proportion of SMEs that can be defined as agri-SMEs and 2) the average funding demand per SME across the focus geographies. These assumptions are based on a number of primary and secondary sources. Please see the appendix for more details.

The overall supply number similarly used the "MSME Finance Gap Database" as a starting point, and was further supplemented by a 'bottom-up' analysis that quantified the existing supply of financing across each channel. Due to data limitations on a channel level, this analysis naturally involves some overlap and double counting (estimated at 5-10%). However, taken together, the 'top-down' and 'bottom-up' approach leads to a reasonable total estimation of existing financing supply to agri-SMEs in the target geographies. Please see the appendix for more details.

<sup>4</sup> ISF Advisors and the Mastercard Foundation Rural and Agricultural Finance Learning Lab (2019). *Pathways to Prosperity: Rural and Agricultural Finance State of the Sector Report.* Washington, D.C.

As an estimate built on the best available data, it is important to note that many agri-SMEs may misjudge the necessary financing required to achieve their growth objectives and, importantly, may underestimate the future operational costs of adapting to, and mitigating, climate change impacts.

<sup>6</sup> This financing gap estimate for agri-SMEs is separate and additional to the USD 170 funding gap for smallholders identified in ISF 2019 report. However, there might be some minor overlap in the form of small commercial farmers. Please see Appendix II for details on the sizing methodology.

### FIGURE 1: SSA AND SEA AGRI-SME FINANCE GAP

# SSA and SEA Agri-SME finance gap

### **Number of agri-SMEs**

There are ~220 thousand Agri-SMEs across Sub-Saharan Africa and Southeast Asia





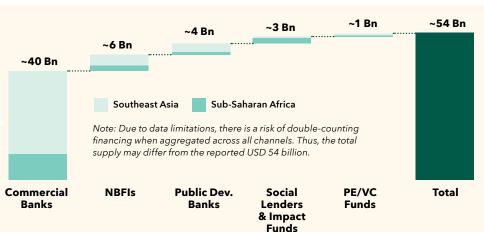
# Current Articulated Demand

The current articulated demand of Agri-SMEs is estimated at approximately USD 160 billion annually



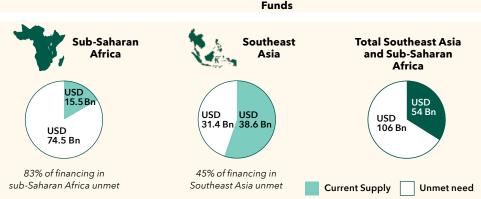
# **Current Supply**

The existing supply of financing to Agri-SMEs is estimated at approximately USD 54 billion annually



# Agri-SME finance gap

An estimated 66% of Agri-SME financing needs go unmet - the equivalent of USD 106 billion per year



of the USD 54 billion per year in agri-SME finance being provided in these two regions, about **USD 40** billion is supplied by local commercial banks, which are traditional financial institutions operating under a full banking licence and supervised by a national or international banking regulatory agency. In line with their risk appetite, they typically invest in more mature agri-SMEs—for instance established aggregators and local processors, such as maize or rice millers, serving regional or national markets. Their financing primarily takes the form of short- to medium-term debt with strong collateral and covenant requirements. These loans bear relatively high interest rates, or at least are perceived as such from the vantage point of developed economies. While commercial banks use deposits and raise institutional debt to onlend, they also often use risk guarantees from public donors, particularly to lend to agri-SMEs. Brian Milder (Aceli Africa CEO) reported that "most of the commercial banks among Aceli's partners have access to some type of subsidised capital and/or credit guarantee for their agri-SME lending (such as the Business Development Fund in Rwanda, PASS in Tanzania, or the Agricultural Credit Facility in Uganda)." In addition, he noted that in East Africa "Aceli is seeing that the average loan size of banks among our partners is much lower (~\$100k) than social lenders (~\$300k)."

Another **USD 6** billion is furnished by non-bank financial institutions (NBFIs), such as leasing or factoring service providers, which are not operating under a full banking license or supervised by a national or international banking regulatory agency. This financing generally takes the form of specific products (e.g., rolling stock and machinery leasing, supply chain finance, or factoring) collateralized against tangible assets or value chain players' receivables. NBFIs serve a wider range of agri-SMEs, from commercial farmers seeking to finance the purchase of a tractor to commodity-exporting agri-SMEs needing trade finance solutions. Development finance institutions (DFIs), philanthropies, and overseas development aid providers have begun to recognise the importance of NBFIs in serving currently underpenetrated markets and often provide them with guarantees and concessional capital.

The next largest tranche of financing is **USD 4 billion disbursed by public development banks**, which are state-owned financial intermediaries specialising in long-term credit to promote the economic development of different countries or regions. These financial products range from subsidies to concessional and commercial debt, often linked to a state-sponsored development agenda.

Despite being at the forefront of agri-SME finance innovation, **social impact lenders and impact-oriented funds only disburse USD 3 billion per year**. These lenders are funded by concessional capital providers and typically seek a triple bottom line, pursuing a combination of returns in the form of business profit and economically and ecologically sustainable development. They mostly finance agri-SMEs active in export-oriented, cash crop value chains (e.g., coffee and cocoa), in the form of working capital or trade finance products. Generally, these lenders are limited by their source of capital: most raise funds in hard currency (USD or EUR) from overseas investors ranging from philanthropic funders to development finance institutions. This funding comes with an obligation to, at minimum, preserve capital—and sometimes to generate a competitive risk-adjusted return. The foreign exchange risk is often passed on to the agri-SME borrowers.

Finally, despite the need for equity to fund the higher-risk growth ambitions of agri-SMEs, **private equity (PE) and venture capital (VC) funds provide only USD 1 billion in (quasi) equity funding per year**. Fund partners' expectations around risk-adjusted returns, ticket size, and investment horizon often do not match up with the investment readiness, scale, and capital strategies of agri-SMEs. For instance, PE funds will invest in large, established agri-SMEs with a steady stream of cash flow (e.g., a local food & beverage manufacturer) and strong growth potential; whereas VC funds will invest in fast-growing, high-margin companies with the potential to disrupt a market (e.g., agtechs such as Cropin in India or SunCulture in East Africa).

When considering these overall sizing numbers, it's important to note that agri-SMEs have three primary goals that require finance: 1) sustaining current growth, 2) accelerating growth to market potential, and 3) adapting to changing environments. Different financing types support each of these objectives in different ways, as we will explore in this report. At a global level, the vast majority of financing is oriented toward the "sustaining growth" objective, in the form of trade finance and working capital.

### FIGURE 2: PRIMARY AGRI-SME FINANCE OBJECTIVES

# **Three primary Agri-SME objectives**



**GOAL:** Finance the day-to-day operations and cashflow cycle of an agri-SME

#### **EXAMPLES:**

- Acquire goods & services
- · Maintain an inventory
- Support the sales and trading cycle



# Accelerate growth to market potential

**GOAL:** Finance investments in assets, human and intellectual capital to pursue an agri-SME growth pathway

#### **EXAMPLES:**

- Increase productivity
- Improve cost efficiency of current assets and capital
- Expand production capacity



# Adapt to changing environment

**GOAL:** Finance the adaptation of the business and operational model to regulatory, consumer preferences and climate changes

#### **EXAMPLES:**

- Convert to regenerative agriculture
- Invest in upstream traceability technologies
- Develop new product or service

# 1.3 A complex market that struggles to clear

For most practitioners involved in agricultural finance, the USD 106 billion formal financing gap will likely not be surprising. Relative to other sectors, agricultural markets are volatile—with high transaction costs, high risks, and low margins for many of the smaller value chain players. These challenges have been well catalogued in past reports<sup>7</sup> that paint a picture of a small number of readily investable agri-SMEs, and financial service providers (FSPs) without monetary incentives to invest the time and resources necessary to successfully source and serve these clients. On top of the "missing-middle" of SME finance (between USD 50,000 and 2 million) in the developing world that has been well publicised by the IFC and the Aspen Network of Development Entrepreneurs, agri-SMEs are widely considered to be riskier and costlier to serve than SMEs in other sectors (e.g., manufacturing).

With this context in mind, to fully understand the agri-SME financing gap it is necessary to consider the role of subsidy and informal finance in **how the market clears**. As depicted in Figure 3 below, within the estimated USD 54 billion in formal financing that does flow to agri-SMEs, a small proportion is offered on fully commercial terms, free of any subsidy. This financing—which is difficult to size—flows to the most profitable agri-SMEs in the market and is typically provided by local commercial banks and profit-first funds.

<sup>7</sup> For instance, Dalberg and Aceli's report on the *Economics of Agri-SME Lending in East Africa* (2018) or SAFIN and Convergence's report on *Deploying Blended Finance to Mobilize Investment At Scale In Food And Agriculture* (2021).

However, as referenced above, agri-SMEs tend to have higher risk profiles and limited cash flow compared to equivalent SMEs in other sectors. This creates the need for some form of subsidy to offset finance costs, hedge against risks, or support agri-SMEs to become more investment ready. This has led public development banks, social lenders, and some NBFIs and commercial banks (those which have complementary social objectives and recognise the need for subsidised capital) to emerge with solutions that build forms of subsidy into their finance, enabling a sub-commercial tier of agri-SMEs to access finance. There is limited data to compare this "sub-commercial" flow of funds to the fully commercial flows, but prevailing perspectives from the range of stakeholders interviewed for this report indicate that purely commercial finance for agri-SMEs is relatively small and limited to a select few agri-SMEs that are well known to all the local banks. Erin Sweeny, the sustainable investment and inclusion lead at Grow Asia, captured this sentiment well saying, "we keep getting asked where we should be investing in agri-SMEs, particularly in the climate area, and we keep coming back to the same 5-8 prospects in the region".

Outside of these flows of funding, the large financing gap can be simply understood as a function of three factors:

- **1. Investment readiness:** The fact that many agri-SMEs describe an investment need but do not meet the minimum requirements of investors;
- **2. Product availability:** Even when agri-SMEs are investment ready, there are not financing products in that market that meet their needs and investment profile; and
- **3.** The volume of capital: Even when agri-SMEs are investment ready and there are matching financial products there is not enough capital of the right profile to meet demand.

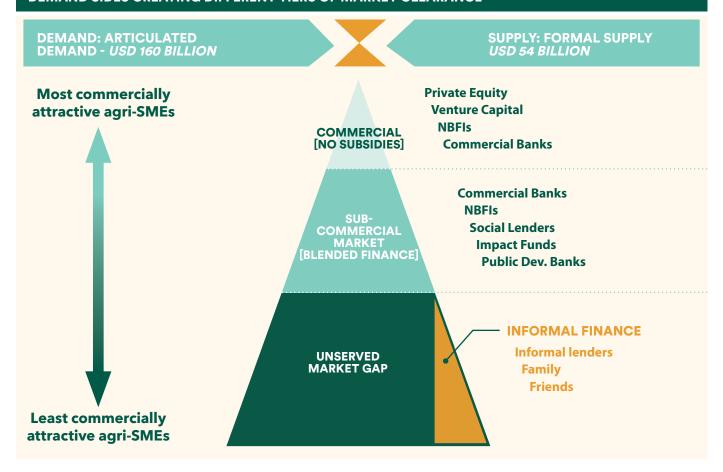
This report will break down these different drivers of the financing gap in the subsequent sections. However, it is important to note that informal sources of finance do provide for some portion of the currently unserved formal finance gap. Research into the relative position and importance of informal finance is limited, but in the absence of appropriate formal financing many agri-SMEs rely on family, friends, and unregulated local lenders to finance working capital needs and investments in their businesses. For instance, it is estimated that in 2009 about KSh 60 billion (USD 860 million) were intermediated in Kenya alone through the informal financial sector. The same study—focusing on one county only—reports that "self help group" finance sources were instrumental in providing the discipline for members to save, while 90% of SMEs (across sectors) that successfully secured formal financing originally got startup capital from 'friends & family' sources. On the other hand, moneylenders in Kenya had a negative and significant effect on SME performance due to predatory interest rates and collateral requirements (e.g., borrowing against a signed transfer of personal vehicles).<sup>9</sup>

<sup>8</sup> Note: Some demand that is not investment-ready may also get funded, usually through a combination of technical assistance and concessional capital (grant or sub-commercial) to achieve a social impact - such as sustaining livelihoods for example.

<sup>9</sup> Joseph Waithaka Mungiru and Dr Agnes Njeru. "Effects of Informal Finance on the Performance of Small and Medium Enterprises in Kiambu County". International Journal of Scientific and Research Publications, Volume 5, Issue 11, November 2015

# Market clearing model of Agri-SME finance

THE USD 106 BILLION FORMAL FINANCING GAP IS CAUSED BY BOTTLENECKS ON THE SUPPLY AND DEMAND SIDES CREATING DIFFERENT TIERS OF MARKET CLEARANCE



**CONTRIBUTION OF THIS REPORT**: Having established the scale of the financing challenge, we believe there is an urgent need to build on past research that has consistently described the agri-SME financing challenge in general terms to develop more sophisticated and consistent ways of understanding this financing gap. Accordingly, this report:

- On the demand side, develops a new characterisation of agri-SME demand for funding to achieve their business growth and adaptation goals;
- On the supply side, provides a sizing and characterisation of current finance by different types of service providers;
- At the intersection of demand and supply, maps funding flows from capital providers to FSPs to agri-SMEs (where the market clears); and
- **Diving deeper into the sub-commercial part of the market**, evaluates the current state of blended finance, including gaps and opportunities to facilitate more financing transactions and agri-SME adaptation to climate change.

We hope these insights will drive a deeper and more nuanced understanding of where finance is (and is not) flowing and serve to generate a clearer understanding of the state of the agri-SME finance sector, as well as to provide a roadmap for practitioners to increase the volume of funding transactions cleared by the market.

# 2 A dynamic approach to understanding the agri-SME demand for finance

Like smallholder farmers, agri-SMEs have historically been considered as a static, relatively homogeneous group. Financial service providers tend to group agri-SMEs in terms of size, sector, and geography. For example, the International Finance Corporation (IFC) defines SMEs as having 10 to 300 employees, assets worth USD 100,000 to 15 million, and annual sales of USD 100,000 to 15 million.

In this report, we use the IFC definition as a starting point and exclude micro-enterprises.<sup>10</sup> While these enterprises play a critical role in sustaining rural livelihoods—and will usually access finance from microfinance illustitutions or informal sources—very few grow into larger, more formal agri-SMEs with the ability to access formal finance, which is the focus of this report.

However, a static definition fails to fully grasp the dynamic nature of agri-SMEs, and therefore the level of support that they require. In this section, we present a picture of agri-SMEs in terms of their growth pathways and their role in food systems to better define agri-SMEs and characterise their finance needs.

# 2.1 Understanding the role and challenges of agri-SMEs in food systems

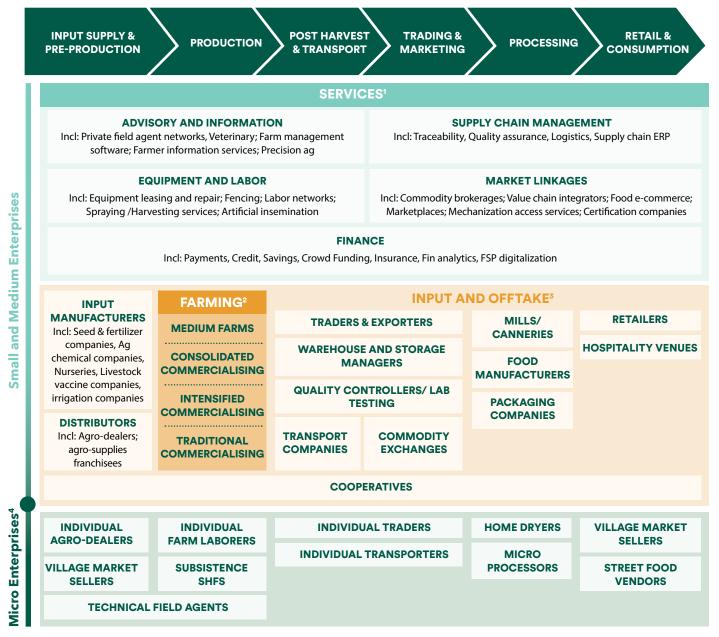
At the most basic level, agri-SMEs are profit-oriented enterprises and cooperatives (see Figure 4) that are central to food systems which contribute USD 8 trillion to the global economy. In previous ISF work with SAFIN, we defined this group holistically as encompassing medium- and large-scale farms, agri-services companies, and the range of SMEs within value chains that facilitate input and offtake activities. Agri-SMEs play a vital role in securing employment, livelihoods, and food/nutrition for their communities. They also generate a thriving local market for goods, services, and financing.

<sup>10</sup> According to the IFC, micro-enterprises employ less than 10 employees and generate less than US 100,000 in revenue.

<sup>11</sup> van Nieuwkoop, M. (June 17, 2019). World Bank Blogs. "Do the costs of the global food system outweigh its monetary value?" https://blogs.worldbank.org/voices/do-costs-global-food-system-outweigh-its-monetary-value.

### FIGURE 4: COMPREHENSIVE AGRI-SME TAXONOMY

# **Comprehensive Agri-SME taxonomy**



- 1. Some enterprises will combine sub-segments into a single business model
- 2. See Pathways to Prosperity report for full overview of sub-segments; Cooperatives and Farmer Organizations included in Farming category but provide services beyond production
- 3. Some enterprises will combine sub-segments into a single business model
- 4. Micro-enterprises listed are illustrative only and not meant to be collectively exhaustive

However, the role of agri-SMEs tends to shift as markets move through different stages of development (as discussed in a report for the Argidius Foundation on agri-SMEs in food systems). During the early development stage, agri-SMEs have limited or no presence. But as food systems transition toward modern markets, agri-SMEs play a bigger role in connecting different components along the food production value chain. Finally, as agricultural markets become more industrialised and globally linked, some agri-SMEs typically become larger-scale players driving production and post-harvest processing and others emerge as niche players providing supporting services.

As a result of operating within food systems and the unique dynamics of developing economies, agri-SMEs are exposed to multiple challenges, <sup>12</sup> including:

- · Difficulty building commercially viable business models;
- · Reliance on public or grant subsidy;
- A tendency toward consolidation (i.e., economies of scale, cross-subsidization);
- The need to build partnerships or coalitions with other SMEs and value chain actors;
- · Difficulty accessing finance due to both real and perceived risks; and
- Exposure to significant impacts of climate change.

It's worth diving deeper into the impacts of climate change. While global agri-food systems are responsible for approximately 30% of global greenhouse gas emissions (CO2eq), <sup>13</sup> agri-SMEs in developing countries contribute very little to this total. The bulk of emissions in the sector are generated by large-scale, intensive commercial agriculture in Europe, the Americas, and China. For instance, sub-Saharan Africa and Southeast Asia contribute respectively 10% and 12.5% of the global agrifood systems emissions. Yet, despite their low level of contribution to climate change, agri-SMEs are disproportionately impacted by climate-related risks and shocks. These include

- Increasingly extreme weather events, like storms, floods, and droughts—which have doubled from an average of 300 events per year in the 1980s to 600 per year in 2010<sup>14</sup>;
- **Declining productivity.** Without measures to help smallholder farmers and agri-SMEs adapt to climate change, worst-case scenario models estimate that global agricultural productivity may decrease by 17% by 2050 and by as much as 50% in Africa<sup>15</sup>;
- Emergence of new pests and diseases. For example, increased temperatures across Central America as a result of climate change play a major role in devastating outbreaks of coffee leaf rust, which has decimated coffee production for smallholder farmers. Between 2013 and 2014, it led to the loss of over 500,000 coffee-related jobs and USD 1 billion in revenue<sup>16</sup>;
- **Volatile supply and prices.** Declining yields, demographic pressure, and increased occurrence of extreme weather events put the supply and prices of key crops under pressure. For example, IFPRI estimates that climate change will result in additional price increases of 32%-37% for rice, 52%-55% for maize, 94%-111% for wheat, and 11%-14% for soybeans<sup>17</sup> by 2050.

To face these risks, agri-SMEs need support in adapting their business models and operations to adapt to changing markets and production environments. Agri-SMEs are fundamental to changing the way agri-food value chains work in mitigating their production of greenhouse gas emissions, introducing products and services that help farmers adapt to climate change, and investing in nature-based solutions that prompt sustainable growth. In order to support these climate-based policy efforts, governments, capital providers, and business development and financial service providers require a deeper understanding of agri-SMEs.

<sup>12</sup> Argidius Foundation (2020). "Food Systems Framework" https://api.cofraholding.com/media/2527/smes-in-food-systems-a-framework-for-engagement.pdf

<sup>13</sup> FAO Emissions shares database - www.fao.org/faostat/en/#data/EM

<sup>14</sup> Munich Re NatCatSERVICE 2016

<sup>15</sup> Turral, H., Burke, J., and Faurès, J. (2011). "Climate change, Water and Food Security." FAO, Rome.

<sup>16</sup> Foote, W. (2014). "Coffee: The Canary in the Coal Mine for Climate Change." Root Capital, Cambridge, MA.

<sup>17</sup> Nelson, G., et al. (2009). "Climate Change: Impact on Agriculture and Costs of Adaptation." IFPRI. Washington, DC.

<sup>18</sup> AGRA (2019). "The Hidden Middle: A quiet revolution in the private sector driving agricultural transformation."

### FIGURE 5: OVERVIEW OF KEY CLIMATE RESPONSES

# Agri-SMEs and climate change, primarily an adaptation challenge

#### Definition **Examples of investment** Relevance for Agri-SMEs An anthropogenic intervention Zero-emissions farm Limited to medium - mostly to reduce the sources equipment relevant for Agri-SMEs in select • GHG-focused genetic or enhance the sinks of crop value chains (e.g., beef) greenhouse gases (IPCC, selection and breeding and emitting sectors (e.g., 2001a) Improved fertilisation logistics). practices in rice cultivation The bulk of the mitigation • Improved rice paddy water Limit the emission of actions are to be implemented management greenhouse gasses by large-scale, intensive Mitigation • Dry direct seeding in rice commercial farms and cultivation industrial food processors • Improved animal health in developed economies as largest emitters of GHG. Adjustment in natural or human • Climate-smart irrigation such **High** - extremely relevant for as solar-powered or microsystems in response to actual Agri-SMEs across value chains or expected climatic stimuli or irrigation and sectors of activity as they • Soil and water management their effects, which moderates will disproportionately be harm or exploits beneficial Agroforestry affected by the consequences opportunities (IPCC, 2001a) • Aquaculture (alternative of climate changes - i.e., yield, supplies of fish to depleted supply of raw material, price **Adaptation** wild fisheries) volatility, stresses on their local Build the capacity to adapt • Alternate wetting and drying economic, health and natural and prosper in the face of shocks and long-term stresses in rice systems environment - in particular caused by climate change in sub-Saharan Africa and Climate advisory services Southeast Asia. • Soil health improvement Limited to medium - mostly Actions to protect, sustainably manage, and restore natural (crop management, no/ relevant for Agri-SMEs and modified ecosystems that low till, organic fertiliser, as a potential source of address societal challenges rotational grazing, carbon diversification or growth by effectively and adaptively, sequestration) developing a new product, simultaneously providing • Enhancing ecosystem service or business activity. human well-being and functions (erosion control) biodiversity benefits (IUCN) Integrated water resource Nature-based management (IWRM) **Solutions** Reforestation or restoration Invest in the protection and activities, silvopasture, etc. restoration of the ecosystems

# 2.2 Characterising agri-SMEs<sup>19</sup>

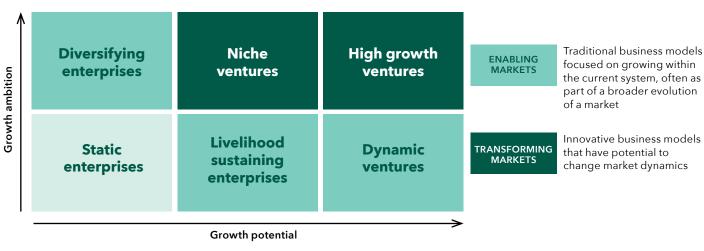
By characterising agri-SMEs according to their growth ambitions and potential, we can organise them into six growth pathways, as described in Figure 5.

- 1. **High-growth ventures** are highly innovative business models serving large, addressable markets with high margins and experiencing a rapid growth trajectory. The pace of growth is impacted by industry, market, and asset intensity. High-growth ventures are expected to scale beyond SME status.
- 2. Niche ventures are business models that are creating innovative products and services that target niche markets or customer segments (e.g., high-end premium markets or small customer bases at the bottom of the pyramid).
- 3. Diversifying enterprises are small, family-run enterprises that have seen minimal growth, but are run by an entrepreneur with a desire to grow. These enterprises are unlikely to see desired growth through existing workstreams; thus, they will look to diversify business lines to expand growth potential.
- **4. Dynamic ventures** are enterprises in stable "bread and butter" industries that are deploying established business models for producing goods and services. These ventures experience moderate growth over sustained periods.
- 5. Livelihood-sustaining enterprises are small, family-run enterprises that are opportunity-driven and on the path to formalisation. These enterprises operate to maintain an income for an individual family. They experience slow and steady growth as they incrementally improve their product or service via traditional models.
- **6. Static enterprises** are small, family enterprises with no ambition to grow beyond their current status. These enterprises are looking to maintain the family's current income level, not grow or innovate the business. Typically, these enterprises are informal and primarily employ family members.

### FIGURE 6: AGRI-SME GROWTH PATHWAYS

# **Agri-SME growth pathways**

#### **GROWTH PROFILE SEGMENTS**



 $Source: SAFIN \ and \ ISF \ Advisors \ (2021), \ "Agri-SME \ Taxonomy: Developing \ a \ new \ framework \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ and \ support \ for \ considering \ agri-SMEs" \ agri-SMEs$ 

<sup>19</sup> In this report, we build on past research conducted by Dalberg for Collaborative for Frontier Finance, and by ISF for SAFIN and the Argidius Foundation. (Hornberger, K. and Chau, V. (2018) "The Missing Middles: Segmenting Enterprises to Better Understand Their Financial Needs." Collaborative for Frontier Finance; SAFIN and ISF Advisors (2021). "Agri-SME Taxonomy: Developing a new framework for considering agri-SMEs"; Argidius Foundation and ISF Advisors (2021). "SMEs in Food Systems: A Framework for Engagement")

### FIGURE 7: AGRI-SME INVESTMENT PROFILES<sup>20</sup>

# **Agri-SME investment profiles**

Pathway (Growth x)	Description	Early Stage	Growth	Maturing	
High growth venture (>5x)	Highly innovative business models serving large addressable markets with a rapid growth trajectory, though the pace of growth is impacted by industry, market, and asset intensity. Highgrowth ventures are expected to scale beyond SME status	<ul> <li>Limited to         no revenue,         unprofitable</li> <li>High risk profile         due to unproven         product/market fit</li> <li>Not investment         ready for traditional         funding products;</li> </ul>	<ul> <li>Growing revenue but unprofitable yet due to investment in scaling business model</li> <li>Elevated risk profile owing to rapid scale-up</li> <li>May be investment</li> </ul>	<ul> <li>Growing         profitability, aiming         for high margins         and/or volume play</li> <li>Medium risk profile         - demonstrated         model with         established         customer base</li> </ul>	
Niche venture (2-5x)	Business models creating innovative products and services that target niche markets or customer segments, such as highend premium markets or, conversely, small customer bases at the bottom of the pyramid. Typically have steady growth over time	may access early- stage VC investment (i.e., pre-seed, seed)	ready for series A VC investment	Investment ready for multiple financial products, and series B onward VC investment	
Diversifying enterprise (2-3x)	Small family run enterprise that have seen minimal growth but are run by an entrepreneur that wants to grow. Unlikely to see desired growth through existing enterprise, so looks to diversify into new business lines to expand growth potential	<ul> <li>Limited to no profitability as it establishes operations</li> <li>Medium to high risk - market is proven but not the enterprise</li> <li>Not investment</li> </ul>	<ul> <li>Moderate revenue growth and limited profitability</li> <li>Medium to high risk - enterprise is building track record in traditional markets</li> <li>Limited investment</li> </ul>	<ul> <li>Moderate revenue and profitability growth</li> <li>Medium risk profile - demonstrated business model and established customer base</li> <li>Increasingly</li> </ul>	
Dynamic venture (2-3x)	Enterprises in stable 'bread and butter' industries deploying established business models for producing goods and services, with moderate growth paths over sustained periods of time	ready for formal sources of finance	readiness, may start accessing formal sources of finance	investment ready for traditional funding products	
Livelihood- sustaining enterprise (1-2x)	Small, family-run enterprises that are opportunity driven and on the path to increased formalization. These enterprises operate to maintain an income for an individual family and have slow and steady growth as they incrementally prove their product or service through traditional models	<ul> <li>and limited productivit</li> <li>High risk exposure - ex internally (e.g., limited  </li> </ul>	ternally (e.g., pricing variabili professional capacity and risl diness - limited collaterals, p	ity, climate, yields) and k mitigation practices)	
Static enterprise (1-1.5x)	Small, family enterprise with no ambition to grow beyond their current status. Looking to maintain current income level for family, but not to grow the business or to innovate.  Typically, informal and primarily employ only family members	<ul> <li>household income only</li> <li>High risk exposure -ext internally (e.g., no form</li> </ul>	ernally (e.g., pricing variabili al management and risk miti ss - Informal structure, no fin	ty, climate, yields) and gation practices)	

To achieve their potential and move along these growth pathways, agri-SMEs need support across five areas: 1) access to finance that is appropriate and accessible for different stages of growth;

2) access to talent and ability to attract and retain qualified employees; 3) an ecosystem of support and collaboration between public, private, and financial players; 4) access to knowledge that strategically supports development; and 5) access to markets, including information, connections with suppliers and clients, and physical infrastructure.

In this report, we focus on access to finance as the key pressing need for agri-SMEs, given the persistent gap between financing demand and supply. In the following sections, we explore how agri-SMEs on the six growth pathways differ in terms of their investment profiles and financing needs.

### 2.3 Understanding agri-SME investment profiles

Building on the six pathways above, we characterise a set of agri-SME investment profiles by stage of development (i.e., early-stage, growth, maturing), considering three dimensions (as seen in Figure 6):

- 1 **Profitability** at the current stage of development;
- 2 Risk exposure, both exogenous (e.g., yield, pricing variability) and internal; and
- **3 Investment readiness**, expressed as the strength of the SME business track record, governance and management capability, and financial health.

Understanding their investment profiles helps form a more complete picture of agri-SME needs, as well as ability to access finance. For example, on one end of the growth spectrum, *high-growth ventures* and *niche ventures* are developing innovative business models, products, and services that have the potential to shift markets. In their early stage, they may not be highly profitable given the need to invest in R&D, product development, and sales/marketing. For that reason, they may be significantly riskier for investors than SMEs operating in traditional sectors with a proven track record. However, as they mature, they may offer more upside and return due to rapid growth. For instance, Koltiva in Indonesia is an agtech primarily active in the palm oil, cocoa, coffee, rubber, and seaweed value chains. It provides tailor-made software solutions and services for managing end-to-end business processes, such as KoltiPay (a digital finance and marketplace), OneTrace (ERP) and B2BTrace (CRM).

On the other end of the spectrum, *livelihood-sustaining enterprises* and *static enterprises* operate in traditional sectors and are on the path to increased formalisation. Exogenous and internal risks are high, and their path to sustainable profitability may be narrow. For example, Femmes Vaillantes of Anié is a Togo-based cooperative of 12 women producing premium parboiled rice.<sup>21</sup>

Somewhere in the middle, *diversifying enterprises* and *dynamic ventures* operate traditional business models with a proven track record. They tend to present moderate growth potential and risk exposure, combined with some profitability. While they operate with a formal structure, governance may not always be up to the standards of banks and investors—for instance, their audited financials and management accounting standards may be lacking. For example, Guanomad is a leading organic fertiliser producer in Madagascar. It extracts bird and bat guano from bat caves and processes them into organic fertiliser products. Products are sold to both the local and international markets.<sup>22</sup>

<sup>21</sup> World Bank (2021) https://www.worldbank.org/en/news/feature/2020/01/28/in-togo-a-women-farmers-cooperative-successfully-produces-premium-quality-rice

<sup>22</sup> Zebu Investments (2021) http://www.zebuinvestments.com/aaf-sme-fund-impact-guanomad/

### CALL-OUT: AGRI-SME EXPOSURE AND ATTITUDES TO CLIMATE CHANGE

As noted earlier, agri-SMEs in our regions of focus (sub-Saharan Africa and Southeast Asia) are limited contributors to climate change, but are disproportionately impacted by its consequences. Their level of exposure to climate risks and ability to adapt is usually a function of both the perspective of the entrepreneur/management team and the type of agri-SME. Agri-SMEs can take different positions on climate change that include:

- 1 Discounting or denying any potential for climate change to impact their business. These agri-SMEs are not easily swayed by facts, information, or advisory, and will delay the adoption of any mitigation or adaptation measures until their business model becomes unsustainable or the cost of changing becomes too high;
- 2 Incrementally changing aspects of their model and operations as climate change impacts are experienced; or
- 3 Proactively adjusting their business model on the basis of likely climate impacts to create more resilient operations and to harness the potential offered by such disruption (e.g., by developing a new product or service).

Each of these three archetypes can be found across the different growth pathways. However, agri-SMEs also differ in terms of:

- Climate exposure, which is primarily a function of their role in the value chain. For instance, agri-SMEs operating in primary production will be more directly and severely affected than those delivering services;
- **Ability to mitigate and adapt,** which is a function of the level of awareness/education, capability, and resources of the agri-SME; and
- **Support needs**, which can range from information and education to technical assistance and/or financing to sustainably transform business models.

Actors supporting the climate mitigation and adaptation of agri-SMEs must better understand the range of experiences, capacities, and needs in order to tailor their messaging and services.

# 2.4 Defining, characterising, and sizing agri-SME financing needs and affordability

We define "financing needs" as the financing necessary for agri-SMEs to achieve their growth objectives and adapt to the consequences of climate change. However there are three key dynamics that have shaped how specific needs are analysed and unpacked in this report:

- We adopt a macro view—not tied to the specificities of different sectors or geographies—to develop a conceptual and qualitative understanding of the investment demand of agri-SMEs. We contend that this demand is primarily defined by the growth pathways of the agri-SMEs and the business they are seeking to build within the bounds of the market they are operating in<sup>23</sup>;
- 2 Estimates are based on "articulated demand" (i.e., the demand directly expressed by agri-SMEs in various surveys)<sup>24</sup> and do not attempt to depict what proportion of this demand is "investment ready"; and
- 3 Very few agri-SMEs fully understand or are currently able to articulate their need for finance to mitigate or adapt to climate change, which makes any "articulated demand" estimates which include a climate aspect impossible at this stage.

We acknowledge that there will be differences in the types of agri-SMEs and the opportunities for growth in different markets and value chains, depending on the maturity and underlying dynamics of those operating contexts. In this report, we have attempted to illustrate where some of those differences may be important but do not offer a systematic assessment. Rather, demand is analysed in a way that can apply across geographies to establish a new way of linking the goals and objectives of agri-SMEs with the finance sought.

<sup>23</sup> For more details on this perspective refer to Collaborative for Frontier Finance "Closing the Gap" report.

<sup>24</sup> Aceli Africa and Dalberg Advisors (2017). "Bridging the Financing Gap: Unlocking the Impact Potential of Agricultural SMEs in Africa." Washington, DC.

### CASE STUDY: AGRI-SMES IN UGANDAN FOOD VALUE CHAINS

Uganda's economy relies on a reported 1.1 million MSMEs<sup>25</sup> that account for the overwhelming majority (98%) of enterprises. But 92% of these are micro-enterprises that are primarily informal. Of the much smaller number of formal SMEs (i.e., those with 10 to 100 employees and total assets valued between UX 10 and 360 million), only 3%—or an estimated 2,800—reportedly operate in the agricultural and food industries. However, many other SMEs are involved with some form of food-systems related activities, such as processing, trading, or retail.

Uganda's agriculture sector is dominated by smallholder farmers, but is in the process of transitioning toward more modern practices. In this context, Ugandan agri-SMEs are primarily livelihood-sustaining and diversifying enterprises—for example, cooperatives like *Busana Coffee Growers* or the *Dwanior Dairy and Livestock Coop*—active in the supply of inputs and aggregation/trading of commodities. A few agri-SMEs also operate as traders in the value chain; for example, Jojus sources produce between wholesalers (~60%) and a network of local smallholders (~40%), trading on the domestic market as well as regional exports. Finally, a handful of agri-SMEs are niche ventures or highgrowth ventures—though with limited digitisation or tech—operating in regional/international trading, aggregation, and processing. For instance, *Mashamba* is a niche venture that taps into fragmented upstream sources and bypasses larger multinational exporters to go straight to target markets. Another example is *Ngetta*, which sources and aggregates seeds from smallholders and cooperatives, and processes them into cooking oil sold domestically or regionally.

#### **Uganda** ADAPT TO CHANGING ENVIRONMENT **ENABLING MARKETS LIVELIHOOD** DIVERSIFYING ENTERPRISES DYNAMIC VENTURES NICHE **HIGH GROWTH VENTURES VENTURES ENTERPRISES TRADING SMES** COOPERATIVES / COOPERATIVES COOPERATIVES / AGGREGATING / **AGGREGATORS TRADING SMES PROCESSING BUSANA COFFEE DWANIRO DAIRY** A GRO WAYS MASHAMBA AND LIVESTOCK Joius COOP **PROCESSING** COOPERATIVES **AGGREGATORS PROCESSORS** TRADING SMES Source: ISF analysis

Overall, Ugandan agri-SMEs are more prevalent in niche global export value chains (e.g., dried fruit, avocadoes, chili peppers) which are less modernised and consolidated than typical cash crops like coffee. In these value chains, agri-SMEs act as critical intermediaries sourcing produce from smallholders, aggregating, and sometimes processing and trading.

Finally, agri-SMEs in Uganda face challenges similar to agri-SMEs globally, across all five major areas (i.e., access to finance, talent, knowledge, market, and a limited ecosystem of support). On the financing demand side, there is a general lack of 'investable' or 'bankable' agri-SMEs due mainly to the persistence of a large informal sector, limited capabilities, and a lack of records needed for financing. On the supply side, generic MSME financial products are insufficiently tailored for agri-SMEs. There is also little public investment in de-risking the sector; in fact, fiscal policy disincentivizes agricultural lending.<sup>26</sup>

In making the link between individual agri-SME goals and financing needs, it is important to distinguish the specific uses for finance under each goal. Agri-SMEs looking to:

- 1 Sustain current growth require finance to support day-to-day operations and cash flow cycles in the form of:
- Working capital finance that is typically debt finance and short-term (<12 months) in nature; or
- Sales and trading finance that is typically trade finance and short-term (<12 months) in nature.
- 2 Accelerate the growth to market potential require medium- to long-term investment capital to finance either:
- *Productivity and cost efficiency investments* in the current business model that are typically financed over the short- to mid-term (1 to 5 years) with debt, equity, or retained earnings; or
- Expansion investments in the business model that also typically span the mid- to long-term (5 to 10 years) in the form of equity.
- 3 Adapt to changing environment require medium- to long-term investment capital to finance:
- New product/service development, typically financed over the long-term (>3 years) though debt, equity, or retained earnings; or
- Building resilience within the current business, typically financed over the mid- to long-term (5 to 10 years) through debt, equity, or retained earnings.

With these goals and types of finance defined, we can clearly see in the figures below how agri-SMEs on different growth pathways typically have different needs and ability to afford types of finance.

Figure 8a paints a general and relative picture that is helpful in understanding the foundational link between the types of businesses, their growth goals, and the uses and types of finance needed to realise those goals. However, the types of financing typically change as companies move through early stages of growth through to maturity. Looking at the growth pathways in terms of their orientation to the types of capital in the market and their stage of development (early-stage, growth, maturing) clearly shows where different forms of capital are typically used.

With this more granular, conceptual understanding of agri-SME investment profiles and needs, in Section 3 we map the funding flows to see where the market clears and develop a better understanding of the current financing landscape.

### FIGURE 8A: AGRI-SME FINANCING NEEDS

# FSP alignment with Agri-SME segments and needs (1/2)

	」ピ SUSTA オ C GROW	IN CURRENT TH	ACCEL TO MAI	ERATE GROWTH RKET POTENTIAL	ADAPT TO CHANGING ENVIRONMENT		
PATHWAY	GOODS & SERVICES	2 SALES & TRADING	3 PRODUCTIVITY & COST EFFICIENCY	4 EXPANSION	NEW PRODUCT/ SERVICE/MODEL	6 BUILDING RESILIENCE	
High growth venture	WORKING CAPITAL	TRADE FINANCE EXAMPLES:	SHORT TO MID- TERM ASSET	MID TO LONG TERM ASSET FINANCE	VENTURE CAPITAL EXAMPLES: EQUITY,	EMERGING RANGES	
Niche venture	EXAMPLES: WC LOAN, OVERDRAFT,	EXPORT CREDIT, LETTER OF CREDIT,	FINANCE  EXAMPLES: SHORT  TO MEDIUM TERM	EXAMPLES: LONG TO MEDIUM TERM	··· CONVERTIBLE, ··· MEZZANINE	FROM GRANT, CONCESSIONAL DEBT AND EQUITY	
Diversifying enterprise	REVOLVING CREDIT FACILITY, FACTORING	" FACTORING '	LOAN, EQUIPMENT  LEASING, HIRE  PURCHASE,  FINANCE LEASE,	LOAN, MORTGAGE, ASSET REFINANCE	GROWTH CAPITAL  EXAMPLES: EQUITY,  CONVERTIBLE,	FUNDING	
Dynamic venture	FACTORING		ASSET REFINANCE		MEZZANINE		
Livelihood- sustaining enterprise							
Static enterprise							

Sources: Financing needs in the agriculture and agri-food sectors in the EU(fi-compass, 2020), SAFIN and ISF Advisors (2021), "Agri-SME Taxonomy: Developing a new framework for considering agri-SMEs", ISF analysis

### FIGURE 8B: AGRI-SME FINANCING NEEDS

# Agri-SME financing needs (2/2)

	LOW		С	OST OF CAPITA	L			HIGH
PATHWAYS	GRANT	RETAINED EARNINGS	BELOW MARKET RATE DEBT	BELOW MARKET RATE EQUITY	MARK RATE D		MARKET RATE EQUIT	HIGH RISK Y EQUITY
High growth venture	Early-stage	Maturing	Early-stage to Growth	Early-stage to Growth	Matur	ing	Maturing	Early-stage to Maturing
Niche venture	Early-stage	Maturing	Early-stage to Growth	Early-stage to Growth	Matur	ing	Maturing	Early-stage to Maturing
Diversifying enterprise	Early-stage to Growth	Growth to Maturing	Early-stage to Maturing	Maturing	Maturi	ng	Maturing	
Dynamic venture	Early-stage to Growth	Growth to Maturing	Early-stage to Maturing	Maturing	Maturi	ng	Maturing	
Livelihood- sustaining enterprise	Early-stage to Growth	Growth to Maturing	Early-stage to Maturing	Maturing	Maturi	ng		
Static enterprise	All	Maturing	Growth to Maturing					
Examples of finance types:	Public Development Bank	N.A.	Social lender/ Impact-oriented fund, NBFI	Impact-oriented fund	Commerci NBF		PE/VC Fund	PE/VC Fund
ource: ISF analysis			Priority of need	ds: HIGH	l	ME	EDIUM	LOW

# CASE STUDY - INVESTING IN CLIMATE-SMART AGRICULTURE TECHNOLOGIES: INNOVATIVE AND TECH-ENABLED FINANCING AND BUSINESS MODELS

In a recent report, CASA identified eight technologies to build the climate resilience of smallholder farmers and agri-SMEs. Technologies range from solar-powered micro drip irrigation systems to solar-powered cold storage solutions and biodigesters, among others. However, financing such technologies faces the same bottlenecks, both on the supply and demand sides of the finance market. To address these, CASA identified six innovative business models through its research interviews.

**Tech-enabled platforms and bundling of services**. To lower the transaction and marketing costs, these models bring a range of agricultural goods and services under one digital/mobile-based platform. Taken together, they mutually reinforce each other and support agri-SME transition to more climate-smart technologies. In some cases, such platforms also partner with (small-scale) finance providers to offer lower-cost credit and insurance products through their platform. Access to finance stimulates the demand for the platform's offering, while also diversifying its revenue streams through broker fees. Finally, the data generated by the transactions on the platform can feed into credit scoring, particularly for previously unbanked customers.

- Subscription-based models. To increase affordability and accessibility of modern technologies and practices (e.g., ploughing, spraying, or harvesting) these models charge farmers and agri-SMEs for services as they need them. This saves them from investing in the technology themselves and provides asset owners with a stable cash flow, which they can use to repay a debt facility extended by investors willing to back such models.
- 2 'As-a-service' models. As in the subscription-based model, these models move from hardware provision (e.g., spraying equipment) to comprehensive service provision (e.g., spraying as a service). By partnering with local service providers and asset owners, they offer the promise of higher asset utilisation and more regular revenue streams, while farmers and agri-SMEs buying the services pay only on the basis of need. Should concessional finance be extended to these models, it could help unlock market growth for climate-smart technologies, creating a greater investment case.
- 3 Collective purchasing. Although not driven by technology, this model is increasingly used to invest in climate-smart agriculture technologies, particularly through cooperatives. This includes collective investment in, and maintenance of, assets that require a certain scale (e.g., surface of agricultural land) to make economic sense. Increasingly, fintech services are emerging to enable simplified group purchase and lending products for smallholder farmers and agri-SMEs (e.g., for cold storage facilities). These models digitise the group sale and lending, and automatically manage payments among the group.
- 4 Leasing and PayGo finance. This model was initially developed and pioneered by the likes of M-Kopa to bring solar energy to off-grid households. In this case, the agri-SME or smallholder farmer pays a downpayment and a monthly fee for asset leasing—eventually leading to full ownership of the asset. For example, SunCulture uses such a model to provide solar-powered drip irrigation systems, with the ability to remotely deactivate the system should the customer fall behind on payments. This ensures extra security and a steady cash flow that can be used to service a debt facility for asset financing.

For more detail please refer to full CASA report https://www.casaprogramme.com/wp-content/uploads/2021/10/Private-finance-investment-opportunities-in-climate-smart-agriculture-technologies.pdf

5 Alternative revenue generation. Some innovative businesses are looking to diversify their revenue streams and expand beyond technology provision. For example, the use of warehouse receipt financing by a solar-powered cold storage technology company. This company is using verified produce stored in their containers as collateral to broker access to credit for the farmers storing their fresh produce. The farmers, in turn, can use credit to invest in quality inputs and improved farm management practices, while also avoiding waste and allowing goods to be sold later for higher prices. The company is able to take a commission from the brokering, expanding their revenue streams beyond storage fees.

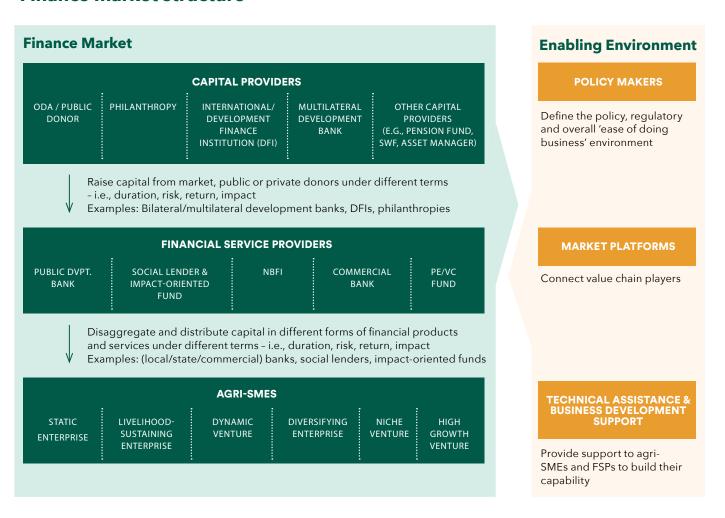
# 3 Meeting demand: How agri-SMEs are currently financed today

### 3.1 An overview of the finance market

In its simplest form, the agri-SME finance market can be summarised as a marketplace where funding flows between three types of actors: capital providers, financial service providers, and agri-SMEs. This financing flows when the market clears—in other words, when a real, articulated demand from an investment-ready SME aligns with an available financial product or type of capital offering.

### FIGURE 9: AGRI-SME FINANCE MARKET STRUCTURE

### Finance market structure



**Capital providers** typically raise capital from the market or public/private donors under specific terms. These terms can include duration, risk-adjusted return, sector/industry focus, and impact, among others. We identify five main types of capital providers active in the agri-SME finance market:

- 1 Overseas development assistance (ODA) and other public donors, which are usually taxpayer-funded institutions affiliated with a government or international political system (e.g., European Union);
- 2 Philanthropies, which may be corporate- or private individual-funded;
- 3 International/development finance institutions (IFIs/DFIs), which are specialised development banks or subsidiaries set up to support private sector maturation in developing countries. These funds are usually financed by government or multilateral institutions, or sometimes by private sector actors or other financial institutions;
- 4 *Multilateral development banks (MDBs)*, which are international financial institutions chartered by two or more countries for the purpose of encouraging economic development in developing countries; and
- 5 Other capital providers, for example pension funds, sovereign wealth funds, and other asset managers.

### Note: Capital providers acting as direct investors into agri-SMEs

The current finance market framework (Figure 9) somewhat simplifies the actual structure of the market. We recognise that capital providers, such as DFIs or philanthropies, may make direct investment into agri-SMEs. However, they will tend to disaggregate and disburse funding through intermediaries, such as funds or even commercial banks, which are much closer to the agri-SMEs and have more capacity to deal with smaller ticket sizes.

Financial service providers, previously profiled in section 1, are at the centre of the agri-SME finance market, sourcing funds from capital providers and distributing them in the form of different financial products and services under specific terms. The power dynamics between capital providers and financial service providers in the allocation of funding are almost impossible to disentangle. Capital providers have power in the form of funding, but cannot achieve their objectives without a competent financial service provider to originate investees, execute and manage transactions, and harvest the return. On the other side, a financial service provider will rarely structure its investment product based solely on the demands of capital providers. Instead, it will independently assess the needs and potential of the market, and then match those by blending different sources of capital (at commercial and concessional terms) to fit the demand while meeting its own profitability and impact objectives.

Other actors play a critical role—in parallel and sometimes overlapping the finance market—in structuring an enabling environment and providing support services. These actors include policymakers, market platforms, and technical assistance providers. In this report, however, we focus solely on the finance market. Assuming that financial service providers play the central role, we mapped financing flows between them and agri-SMEs to size the supply of finance for each category of service provider. Note that this mapping only captures transactions where the market clears.

In the next section, we consider how capital providers and financial service providers collaborate to deploy subsidies and blended finance structures, in order to address the challenges of the agri-SME finance market and clear more funding transactions.

# 3.2 A sizing and mapping of agri-SME funding flows by channels

The current annual supply of finance to 220,000 agri-SMEs in sub-Saharan Africa and Southeast Asia amounts to an estimated USD 54 billion. It is difficult to assess how this total breaks down given conflicting definitions and overlapping datasets. With the understanding that these estimated amounts probably overlap to a certain extent and can't be added to reconcile with our top-down estimation, we have also conducted a bottom-up sizing of funding per channel using industry sources (e.g., SAFIN), public databases (e.g., Pitchbook), and other reports (e.g., Asian Development Bank's annual report).

Despite the emergence of numerous social lenders and impact-oriented funds, the bulk of current funding is supplied by local commercial banks and, to a lesser extent, NBFIs and public development banks (more than 80% combined). In Figure 9, we map the current supply of financing both in terms of product types and alignment with different agri-SME growth pathways.

### FIGURE 10A: FSP ALIGNMENT WITH AGRI-SME SEGMENTS AND NEEDS

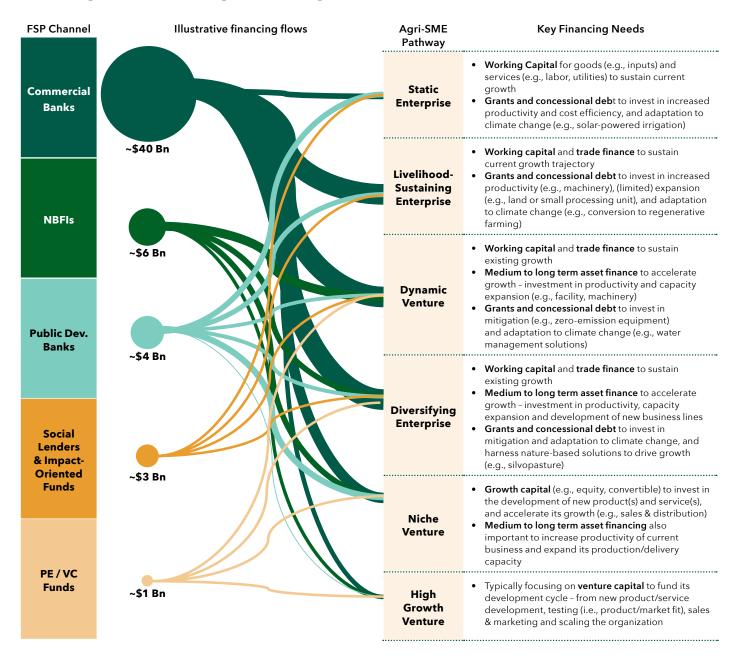
# FSP alignment with Agri-SME segments and needs (1/2)

	」ピ <sub>SUSTA</sub> オ	IN CURRENT TH	ACCELL TO MAI	ERATE GROWTH RKET POTENTIAL	ADAPT TO CHANGING ENVIRONMENT		
PATHWAY	GOODS & SERVICES	2 SALES & TRADING	3 PRODUCTIVITY & COST EFFICIENCY	4 EXPANSION	NEW PRODUCT/ SERVICE/MODEL	6 BUILDING RESILIENCE	
High growth venture	WORKING CAPITAL	TRADE FINANCE EXAMPLES:	SHORT TO MID- TERM ASSET	MID TO LONG TERM ASSET FINANCE	VENTURE CAPITAL EXAMPLES: EQUITY,	EMERGING RANGES	
Niche venture	EXAMPLES: WC LOAN, OVERDRAFT,	EXPORT  CREDIT, LETTER  OF CREDIT,	FINANCE  EXAMPLES: SHORT  TO MEDIUM TERM	EXAMPLES: LONG TO MEDIUM TERM	CONVERTIBLE, MEZZANINE	FROM GRANT, CONCESSIONAL DEBT AND EQUITY	
Diversifying enterprise	REVOLVING CREDIT FACILITY, FACTORING	FACTORING	LOAN, EQUIPMENT LEASING, HIRE PURCHASE, FINANCE LEASE,	LOAN, MORTGAGE, ASSET REFINANCE	GROWTH CAPITAL EXAMPLES: EQUITY, CONVERTIBLE,	- FUNDING	
Dynamic venture	FACTORING		ASSET REFINANCE		MEZZANINE .		
Livelihood- sustaining enterprise							
Static enterprise							

Sources: Financing needs in the agriculture and agri-food sectors in the EU(fi-compass, 2020), SAFIN and ISF Advisors (2021), "Agri-SME Taxonomy: Developing a new framework for considering agri-SMEs", ISF analysis

### FIGURE 10B: FSP ALIGNMENT WITH AGRI-SME SEGMENTS AND NEEDS

# FSP alignment with Agri-SME segments and needs (2/2)



### \* For detailed information on each financing channel, please refer to Appendix I.

The bulk of current funding, especially in Southeast Asia,<sup>27</sup> is currently supplied by **local commercial banks**. These banks primarily serve the needs of livelihood-sustaining enterprises, dynamic ventures, diversifying enterprises, and niche ventures with traditional debt funding products, from working capital to asset finance. Banks typically lend to the most creditworthy borrowers with track record and collaterals. They are also established lenders to SMEs that have already received high-risk funding from other types of financiers—early funding creates a financial track record and business maturation that banks look for.

<sup>27</sup> Note: supported by a strong enabling environment and policies.

Non-bank financial institutions are generally smaller than banks or investment funds, span the range of social and commercial interests, and tend to focus on specific product offerings (e.g., asset leasing or short-term credit lines) or borrower segments. NBFIs gravitate toward smaller ticket sizes due, in part, to a lack of capacity to service larger loans and also the specific nature of their typical financial products, which can limit the upper bounds of the financing they offer. In addition, NBFIs often fill gaps left by commercial banks in rural and agri-production areas by serving agri-SMEs operating further upstream in loose value chains (e.g., those directly working with informal smallholders). Thus, they have been an important source of financing to rural communities underserved by commercial banks. NBFIs also focus on specific products tightly collateralized against tangible assets or credible receivables; their products are often more expensive than those from other sources.

The **public development bank** channel is particularly mature in Southeast Asia, where it plays a crucial role in broader financial markets. These banks typically offer funding to agri-SMEs via specialised SME- or agriculture-focused banks, which exist in a majority of Southeast Asian countries. In sub-Saharan Africa, public development banks are relatively new—but they play a major role in both direct lending to agri-SMEs and catalysing investment by private sector lenders by providing guarantees and other mechanisms. Given the wide range of public development banks, typical products vary from working capital and revolving loans to asset finance. Most of these institutions have specific mandates to serve micro-enterprises and SMEs, which means their products are often tailored to SMEs more broadly, with agri-SMEs as a subset investee type.

Impact-oriented funds and social lenders often fill critical financing gaps left open by larger commercial and development banks. Thus, different impact-oriented funds finance agri-SMEs across all six growth pathways. According to a 2020 survey by the Global Impact Investing Network, food and agriculture account for a relatively small proportion of assets under management globally (9% excluding outliers). However, it is the most common sector for investment, with 57% of respondents having some allocation to the sector. Impact-oriented funds often have substantial agricultural expertise, appropriate lending terms, and access to lower-cost, impact-focused capital. But they also have limited in-country presence to service loans cost effectively. The reality of the impact-oriented fund business model (i.e., lending in hard currency, funded by international donors) often means they focus funding on dynamic ventures and diversifying enterprises active in export-oriented value chains, such as producer groups or traders/processors working in coffee or cocoa. Beyond that, some funds will target smaller and/ or earlier-stage agri-SMEs, including niche ventures and high-growth ventures with significant impact and additionality. Finally, given their impact mandate, these funds will sometimes finance agri-SMEs that require more concessionary terms (e.g., static enterprises, livelihood-sustaining enterprises) either directly or indirectly.

Despite the need for equity to capitalise agri-SMEs, **private equity and venture capital funds** contribute only USD 1 billion in equity financing to the market. This financing targets private companies at specific stages of development with attractive risk-adjusted returns. Overall, the contribution of these funds is very limited relative to the larger and more localised channels (e.g., commercial banks). This is due to a misalignment of return expectations, ticket sizes, and investment horizons with the investment-readiness, scale, and willingness of agri-SME owners to open their capital to third parties. Generally, private equity and venture capital funds require high standards of management and governance, along with extensive reporting on environmental, social, and governance metrics. They also tend to favour large deals and strong growth potential, and have ticket sizes much larger than most agri-SMEs can absorb.

# CALL-OUT: ACKNOWLEDGING REGIONAL DIFFERENCES IN FUNDING FLOWS

Commorcial	Sub-Saharan Africa	Southeast Asia USD ~30 billion (>75%)	
Commercial banks	USD ~10 billion (>60%)  Lower maturity of local banking sector in SSA, with often higher costs associated with servicing agri-SMEs relative to the more mature banking sector in SEA.  Primarily focus in urban areas, leaving gaps in the financing available to rural agri-SMEs.  East Africa has a more mature sub-sector of commercial banks with agri-specific	Agri-SMEs benefit from a relatively mature local banking sector in SEA.  Concerted efforts by central governments to increase the flow of financing from this source via incentives and catalyzation.  There are a number of commercial banks in SEA with agri–specific divisions or focus, often due to the previously mentioned government policies and incentives.	
NBFIs	divisions or foci relative to the rest of SSA; these agri-focused banks are often able to provide innovative products not found at the more general commercial banks.  USD ~2 billion		
	Often smaller than counterparts in SEA, due in part to the more nascent nature of the sector and the relatively limited state support.  International donors often focus on NBFIs in SSA to create additional	A well-developed and mature NBFI industry is driven primarily by central state support and planning (e.g., specific policies directed at developing the sector state-run factoring/leasing agencies, etc.)  The NBFI sector appears to be rapidly	
	financing opportunities in more rural and underpenetrated areas.  However, the promise of NBFIs as a	growing across SEA as SMEs continue to utilise these actors as substitutes for financing, in particular working capital.	
	means to increasing access to finance is offset by the high costs of this capital, limiting the broad adoption of this channel across SSA.	NBFIs play a particularly important role in Cambodia, Brunei, and Indonesia.	

Public
development
banks

### USD ~1 billion

Relatively less mature than SEA but play a major role in not just direct-lending to agri-SMEs but also in providing catalysing options to private-sector lenders, such as credit guarantees.

SSA PDBs will often focus more specifically on agriculture as a broad sector rather than SMEs, due to the sector's importance in the region; this differs from SEA, where most countries have SME-specific PDBs that includes agriculture as one of a number of subsectors.

# USD ~3 billion

A mature sector in SEA that plays a crucial role in the broader financial markets, not just in agri-SMEs.

SEA PDBs typically offer funding to agri-SMEs via specialised SME banks (the majority of SEA countries have at least one of these) or agriculture-focused banks.

While relatively prevalent, these institutions often focus on medium-sized enterprises with more established track records, rather than micro and small companies.

# Impactoriented funds and social lenders

### USD ~2 billion

IOFs are particularly present in sub-Saharan Africa, as they seek to fill existing financing gaps for agri-SMEs; ~45% of all agri-SME-focused funds analysed by a 2021 IFC study focused on SSA (only 13% of these funds focused on Asia).

International capital providers often direct IOFs to focus on investments in SSA more than other regions, in a search for increased impact outcomes.

### USD ~1 billion

The relatively limited role of impact funds in SEA can be explained, at least in part, by the strength of the domestic banking and NBFI sector that is able to meet more of the financing demand than in SSA.

# Private equity and venture capital funds

### USD ~0.5 billion

The traditional PE and VC sectors in SSA are less mature than in Asia, as investors continue to see barriers (e.g., difficulty to find exits) in the region (and especially in agriculture).

Private equity capital deployed in SSA often skews toward the impact-oriented funds (e.g., below-market rates) due to these major barriers in the broader agri-SME market.

### USD ~0.6 billion

The agri-VC market in SEA is experiencing significant growth, focused primarily on agtech SMEs in large markets such as Indonesia, Thailand, and Malaysia.

PE funds are also prevalent and target the relatively mature agtech market at later stages.

## 3.3 Understanding the finance gap in a new way

The demand- and supply-side mapping presented so far in this report reveals a complex market with many segments of SMEs and types of financial service providers (and their providers of capital). From our analysis, we highlight five key insights that should shape strategies to bridge the agri-SME financing gap:

Insight 1: The small "top of the market" is disproportionately (and possibly adequately) served. About 85% of currently available funding is supplied by local commercial banks and impact-oriented funds, which both primarily serve more mature and creditworthy agri-SMEs with a proven track record OR those active in export-oriented, cash crop value chains. Beyond that, NBFIs (>10% of funding) serve a slightly broader group of agri-SMEs, but mostly deploy de-risked products, such as factoring or leasing, with tight collaterals. Accordingly, this financing is also skewed toward more mature/larger agri-SMEs. While no global data exists, anecdotally, these larger, more mature agri-SMEs represent a very small fraction (<5%) of the agri-SMEs in the market, leaving a huge funding gap for those agri-SMEs that have yet to develop a financial track record, as well as a lack of more risky, patient capital that could support agri-SMEs in their growth and development journey.

Insight 2: The large "bottom of the market" will struggle to become investment ready and access commercial finance, raising a serious, long-term development question. Static enterprises and, to some extent, livelihood-sustaining enterprises won't develop rapidly into commercially sustainable and profitable enterprises with the ability to raise commercial debt or equity. Often, they do not even have an ambition to do so. Financing such enterprises comes at a high cost in terms of subsidising the capital and supporting the investee through technical assistance. This leads several capital providers and investors to raise the question of the sustainability and efficiency of such funding: Do the economic, social, or environmental benefits outweigh the costs? Or should support go to enterprises with more potential to both impact their communities and become sustainably profitable?

Insight 3: Where is the equity for the promising "middle of the market"? In several of the interviews we conducted for this research, and across the literature, industry practitioners note the need for higher equity capitalisation of agri-SMEs to help them invest in their growth and withstand temporary market shocks. However, there is fundamentally a mismatch between the demand and supply of such equity funding, for a variety of reasons. First, agri-SMEs are typically averse to equity investment due to limited financial literacy and the reluctance to relinquish control over capital. Second, the majority of agri-SMEs are not ready for equity financing; they are mostly unstructured, with limited professional governance. Third, agri-SMEs do not yet offer the risk-adjusted return expected by partners of impact-oriented equity funds and have limited exit opportunities. Finally, agri-SMEs' limited valuation and growth potential mean any equity investment could significantly dilute current owners and disincentivize them to lead growth. This explains why much funding sits idly in private equity funds (particularly those dedicated to sub-Saharan Africa), but also why so few funds allocate a large portion of their assets to the sector.

Insight 4: Growth financing for more disruptive agri-SMEs is now an increasing target for many international funds, but still tough going. Recognising the potential of agtech to bring disruptive innovations to the market and address some of the sector's pain points at scale, several international funders are now deploying growth financing solutions to fund disruptive high-growth ventures and niche ventures. In the early stages of growth however, one of the interviewees reported that generalist VC funds in sub-Saharan Africa prefer investing in heavily tech-enabled startups and tend to invest only

after pre-seed. As a result, pre-seed financing is typically provided in the form of grants and high-risk equity provided by impact-focused investors. For example, Small Foundation recently announced a partnership with Founders Factory Africa<sup>28</sup> to incubate and invest in 18 agtechs across Africa. Another example is Mercy Corps Ventures, which was founded in 2016 as the venture capital arm of Mercy Corps. To date, they have supported more than 30 ventures to scale and raised over USD 100 million in follow-on capital.<sup>29</sup> As many agtechs move beyond this (pre)seed/startup phase of growth, an emerging set of specialised funds—such as TLCom Capital or AgFunder—are starting to fund Series A and B rounds on the path to more commercial, later-stage financing rounds. While this ladder of finance is emerging around some of the forerunning agtechs—such as Pula, Koltiva, Twiga, and Hello Tractor many others are still struggling to raise funds, particularly at the Series A level. With companies such as Rural Taobao in China, and DeHatt and AgroStar in India proving that agtech models can reach transformative scale, many companies in sub-Saharan Africa and Southeast Asia are betting on following this lead.

Insight 5: Despite the climate change urgency, climate finance for agri-SMEs is yet to emerge as a strong channel of funding with appropriate products and services, particularly those focused on agri-SME adaptation. According to a 2020 analysis conducted by the Climate Policy Initiative, global climate financing amounted to USD 580 billion, of which over 90% is dedicated to mitigation across sectors. Of that, only ~3% (USD 20 billion) went to the agriculture, forestry, and land-use sectors. Of that, only  $\sim$ 4% (USD 700 million) went to value chain actors in non-OECD countries. Of all tracked projects, 91% in sub-Saharan Africa and 45% in Southeast Asia were allocated to climate adaptation. This funding is almost exclusively provided by the public sector (95%), primarily focuses on big-ticket initiatives, and is mostly disbursed as grants and concessional debt. As one senior researcher reported, defining and funding "adaptation is problematic because there is no exhaustive list of what is considered adaptation." She added that "adaptation is very localised and to address it, it requires (i) identifying local vulnerabilities and (ii) developing locally relevant solutions." Review of the ISF Fund Database reveals that impact-oriented funds with a clear mandate to focus on both climate financing and agri-SMEs have an estimated USD 300 million in assets under management (although distinguishing the actual overlapping of financing directed to those two mandates is extremely difficult).<sup>30</sup> Essentially, in comparison to the total articulated demand (which is very limited for climate mitigation, adaptation, and nature-based solutions), current climate financing for agri-SMEs represents a drop in the ocean.

<sup>28</sup> https://techcrunch.com/2021/04/22/founders-factory-africa-partners-with-small-foundation-to-invest-in-18-agritech-startups/

<sup>29</sup> https://www.mercycorps.org/what-we-do/ventures

<sup>30</sup> Note that establishing the overlapping climate financing directed to agri-SMEs from these funds is often very difficult. However, some key examples of funds that focus on both mandates include the Acumen Resilient Agriculture Fund (a purpose-built fund aimed at enhancing the climate resilience of smallholder farmers by investing in early stage agri-SMEs enabling this resilience), Bluegrass Partners Fund (an issuer of sustainability-linked loans to in small and mid-cap agribusinesses in Africa and Asia), and the Meloy Fund for Sustainable Fisheries (a debt and equity fund investing in fishing-related SMEs in Southeast Asia with the goal of placing ~1 million hectares of coastal habitats under improved management).

### **Climate Finance**

### **CLIMATE FINANCING FOR AGRI-SMES**

According to a 2020 analysis conducted by Climate Policy Initiative, only ~3% (~\$20 bn) of global climate financing went to the agriculture, forestry, and land use sector. Of that, only ~4% (\$700M) went to value-chain actors (e.g., agri-MSMEs), a relatively tiny amount for a crucial part of any food system.

### SIZE OF CLIMATE FINANCING FOR AGRICULTURE GLOBAL CLIMATE FINANCING FINANCING FOR AGRICULTURE / FORESTRY / LAND USE ~\$20B ~\$10B ~\$10B Other Large-scale agriculture regions ~43% \$580Bn Adaptation/Mitigation ~29% ~51% ~3% total East Asia+Pacific ~20% Small-scale Adaptation ~49% Sub-Saharan Africa ~36% Agriculture All other sectors **Size of Recipient Use Case** Geography

Climate financing is defined as those finance flows directed toward low-greenhouse gas (GHG) and climate-resilient activities in small-scale agriculture with direct or indirect GHG mitigation or adaptation benefits

### **SOURCES OF CLIMATE FINANCING**



~95% of global climate financing for smallscale agriculture comes from public sources



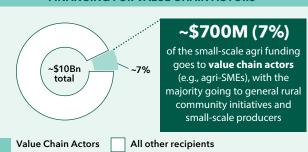
- ~50% of financing provided by grants
- ~35% provided via concessional debt
- ~15% by non-concessional debt

### **KEY INSIGHT #1**

### Specific tailored instruments are necessary to push agriclimate (and specifically agri-SME) financing forward

- Even the (relatively) small segment of agri-climate finance suffers from a lack of specific products/instruments that are tailored to provide genuine climate-smart impacts
- · Much of the existing financing focuses on 'retrofitting' agrifunding to provide climate impact, rather than designing these flows with this goal in mind from inception
- The public sector's dominance in agri-climate financing possibly contributes to this issue, as their focus on large-scale projects over longer terms can often lead to a lack of dynamism
- To mitigate these issues, further private (and blended) financing that uses specific climate-dedicated instruments (e.g., products linked to clear climate KPIs) is needed

### **FINANCING FOR VALUE CHAIN ACTORS**



### **KEY INSIGHT #2**

### Financing Agri-SMEs could provide significant incremental value in the quest for further climate impact

- · Despite the very real challenges associated with financing agri-SMEs (both climate-related and generally), the sector provides potential for incremental impact that is often under-pursued
- Broadly, the climate focus on producers, land use, and value-chain infrastructure means that the actual agri-SME businesses so crucial to facilitating any value chain are under-funded
- For example, in the developing world, agri-SMEs play a crucial role in mitigating (or not) GHG emissions from food waste in a value chain (e.g., operating cold chains, providing storage / packaging, controlling lead times)
- · Thus, ensuring that these agri-SMEs are targeted with climatesmart funding can achieve significant incremental impact

# 4 Capitalising financial service providers and blended finance as a tool to unlock agri-SME finance

# 4.1 Background: blended finance to mitigate bottlenecks in the agri-SME finance market

Subsidies have a place in agri-SME finance, just as they do in many other nascent and imperfect markets. While it is difficult to estimate the source and type of capital and while there is evidence of purely (yet limited) commercial financing from commercial banks, of the five financial service provider channels discussed in section 3, all leverage some form of subsidies to mitigate the real and perceived risks of agri-SME lending, reduce the high costs of serving rural areas, and address other bottlenecks to clearing market transactions.

The evolution of a more sophisticated agri-SME finance market depends on identifying clearer tiers within the sub-commercial market, as this report introduced in section 1. The two ends of the spectrum are relatively easy to understand:

- SMALL AMOUNTS OF SUBSIDY: At one end of the spectrum, commercial banks may take DFI
  capital with commercial pricing—but a higher risk appetite and more flexible terms—to lend to more
  mature agri-SMEs with the collateral and product requirements (e.g., receivables finance) to make
  lending possible.
- LARGE AMOUNTS OF SUBSIDY: At the other end of the spectrum, specialised funds or state banks that use high levels of subsidy to support pipeline development, directly provide complementary technical assistance to agri-SMEs, and reduce their costs of capital with guarantees or grants.

However, fully unpacking the approaches and tiers *between* these two extremes is more difficult. Moreover, the amount of subsidy deployed by different sub-commercial, blended finance approaches needs to be compared, taking into account the anticipated impact—or, said differently, "the impact case for going downmarket with more subsidised finance." Structures such as Aceli seek to link the amount of subsidy to this impact case in an adaptive way in which subsidies are applied on a loan-by-loan basis. Other funds and financial institutions make this case for subsidy in the initial design and targeting of the product with reporting over time.

We believe that for the sector to truly make substantive progress in the more efficient and effective use of subsidy, a more sophisticated way of comparing the subsidy-to-impact tradeoffs inherent in different approaches and models is imperative. This report does not set out to fully establish this comparison model (and the data that would be needed) but offers a first step in laying out the different blended finance approaches and examples that can be observed in the market, as well as the current ways in which capital is allocated by some of the leading public sources.

### CALL-OUT: DEFINING AND UNDERSTANDING BLENDED FINANCE

Convergence defines blended finance as "the use of catalytic capital from public or philanthropic sources to increase private sector investment in sustainable development" and identifies four common blended finance structures:31

- 1. Concessionary capital on below-market terms, used to reduce the cost of capital or provide an additional layer of protection to private investors;
- 2. Guarantee or insurance on below-market terms to reduce lending risks;
- 3. Grant-funded technical assistance facility (TAF) that can be utilised pre- or post-investment to strengthen commercial viability and development impact; and
- 4. Grant-funded transaction design or preparation to set up new investment vehicles.

According to Convergence, 61% of all blended finance transactions in 2020 targeted sub-Saharan Africa, while Southeast Asia accounted for 19% of transactions.32 As a sector, agriculture made up 28% of 2020 transactions, primarily driven by investments in firms focused on agricultural inputs (55% of agricultural deals since 2018).

### 4.2 A more sophisticated landscape of approaches to catalyse sub-commercial finance

With the objective of catalysing more private capital investment for agri-SMEs, donors deploy subsidies via varying structures and approaches. These blended finance structures also aim to address one or several of the demand- and supply-side bottlenecks highlighted in the first section of this report. For example, on the supply side, subsidies may be used to lower the costs associated with serving rural areas and/or to offer a risk-adjusted return that's more attractive to private investors. On the demand side, subsidies are often deployed to increase the investment readiness of agri-SMEs, make financing more affordable, and/or support the development of appropriate financial instruments.

In recent years, the landscape of these blended finance approaches has become more sophisticated. Capital providers are more nimble in trying to match the different investment profiles of agri-SMEs, in terms of growth ambition, profitability, value chain, risk exposure, and investment readiness. As noted in Figure 11, we have observed seven key ways in which blended finance is structured to address pain points in the market. For instance, local commercial banks will primarily make use of risk share, incentive payments, and, at times, investment facilitation or technical assistance. Social lenders and impact-oriented funds will typically leverage a broader set of those approaches—in particular, raising catalytic capital, attaching a technical assistance facility (externallyfunded and operated) to their investments, and using investment facilitation and BDS support in their value chain(s) of activity. For channels 1 to 6 in particular, donors play a critical role that would not otherwise be fulfilled by investors.

<sup>31</sup> Convergence (2021). "The State of Blended Finance 2021." Toronto.

<sup>32</sup> Note: broader scope than used in this report.

### FIGURE 11: BLENDED FINANCE APPROACHES

# Addressing the finance market pain points through blended finance

	Channel	Description	Pain points addressed
•	Value Chain / Business Dev. Support	A donor funds a program that employs sector experts and business advisors who work with agri-SMEs (often in particular value chains) to improve business fundamentals and/or investment preparedness	<b>Demand-side:</b> investment readiness, risk mitigation
2	Investment Facilitation	A donor funds a program (e.g., trade hub) or event (e.g., deal room) that matches agri-SMEs with appropriate banks and investors based on SME size, stage, financing need, etc.	Demand-side: investment readiness, product appropriateness Supply-side: cost-to-serve
3	Single Fund TAF	A donor puts funding into a technical assistance facility (TAF) that provides pre- or post-investment support to strengthen commercial viability and impact of portfolio investees of an investment fund	<b>Demand-side:</b> investment readiness, risk mitigation <b>Supply-side:</b> cost-to-serve, risk-adjusted return
4	Multi-fund TAF	A donor funds a technical assistance facility associated with multiple investment funds or financial institutions, each of which submits applications for grants to support their portfolio investees	<b>Demand-side:</b> investment readiness, risk mitigation <b>Supply-side:</b> cost-to-serve, risk-adjusted return
5	Incentive Payments	A donor funds a program that gives direct grants or incentives to investment funds or financial institutions that serve specific segments or meet specific objectives (also known as "outcome payments" or "pay for results")	<b>Demand-side:</b> risk mitigation, product appropriateness <b>Supply-side:</b> cost-to-serve, risk-adjusted return, impact
6	Risk Share	A donor provides credit enhancement through a guarantee in order to reduce or share the risk for an investment fund or financial institution	<b>Supply-side:</b> cost-to-serve, risk-adjusted return, (FX risk)
7	Direct Investment in Fund/Facility	A donor/investor puts grant or concessional funding into the capital stack of an investment fund to lower the overall cost of capital or to provide an additional layer of protection to private investors	<b>Supply-side:</b> cost-to-serve, risk-adjusted return

Source: ISF analysis

To further illustrate this typology, we mapped a series of donor-funded programmes in Figure 12. This basic mapping shows that capital providers typically use more than one of the blended finance channels to achieve their objectives.

For example, Aceli Africa is an innovative approach to bridging supply and demand for agri-SME finance. First, it incentivises lenders to serve market segments that are higher risk but generate substantial impact by 1) depositing 2%-8% of the loan value into a reserve account that can cover first losses across the lender's portfolio of qualifying loans; 2) providing additional financial incentives for loans that meet criteria related to gender inclusion, food security and nutrition, and/or climate resilience; and 3) offering origination incentives that compensate lenders for the lower revenues and higher operating costs on loans ranging from USD 25K-500K. Second, Aceli works on expanding the investment-ready demand by facilitating technical assistance for agri-SMEs at both pre- and postinvestment stages. From September 2020 to October 2021, Aceli has facilitated more than USD 28 million in loans, with an average ticket size of USD 124K.

Another example, as seen in Figure 12, is **IDH Farmfit**, which brings together three sets of solutions aimed at comprehensively addressing both supply- and demand-side bottlenecks. IDH Farmfit Business Support helps companies and banks develop cost-efficient, smallholder-inclusive business models by providing them with 1) data and insights on the cost efficiency and sustainability of their service delivery models; 2) technical assistance to trial new service delivery models; and 3) blended finance to scale these models. IDH Farmfit Intelligence shares key insights on how to make smallholder value chains more efficient, effective, and impactful. And finally, the IDH Farmfit Fund is a EUR 100 million facility that takes the highest-risk positions in an investment, including first-loss coverage, and is supported by a second-loss guarantee facility from USAID (up to USD 250 million).

These examples illustrate that capital providers and intermediaries are taking note of the multi-faceted needs and complex investment profiles of agri-SMEs, which require support for portfolio investees and financial service providers beyond affordable capital. More approaches are being tried today than ever before, and combinations of different approaches are starting to address covariate constraints in more sophisticated ways. However, comparison between the efficacy of different approaches is still very difficult and requires a much more specific learning agenda across the sector. In the next two subsections, we look more deeply at the evolving role of specialised funds as a channel and the role of public funders in mobilising capital to identify further opportunities for blended finance.

### FIGURE 12: LANDSCAPE OF ACTIVE BLENDED FINANCE APPROACHES

# Illustrating the use of blended finance channels

		1	2	3	4	<b>5</b>	6	7
DONOR FUNDE	D PROGRAMS	VC SUPPORT / BDS	INVESTMENT FACILITATION	SINGLE FUND TAF	MULTI- FUND TAF	INCENTIVE PAYMENTS	RISK SHARE	DIRECT INVESTMENT IN FUND
Agri-Business Capital (ABC) Fund	Extend loans and equity products for SHFs and agri-SMEs, either directly to farmers' organizations and SMEs, or indirectly via financial institutions.			<b>✓</b>				<b>~</b>
Aceli	Catalyze agri-SME financing with portfolio first-loss, origination incentive and TA				<b>~</b>	<b>~</b>	<b>~</b>	
AGRF Deal Room	Matchmaking platform for governments and companies to facilitate access to finance		<b>~</b>					
Alliance for Inclusive and Nutritious Food Processing (AINFP)	Remote TA from world leading food processing companies and access to finance (OPEX/CAPEX) for food processors in East Africa	<b>~</b>	<b>~</b>					
Commercial Agriculture for Smallholders and Agribusiness (CASA)	TA supporting agribusinesses with aggregation, extension, access to inputs, mechanisation and climate- smart practices	<b>~</b>			~			
IDH FarmFit	Making investment in smallholder farming more attractive, providing TA, insights, and de-risked finance models to banks and businesses	~		<b>~</b>			~	<b>~</b>
Kenya Investment Mechanism (KIM)	USAID project facilitating \$400 million investment in Kenya's agriculture, and for regional trade – supporting mobilization of private investment and accelerating enterprise development	<b>~</b>	<b>~</b>			<b>~</b>		
Private Agricultural Sector Support Trust (PASS)	Facility established to stimulate investment and growth in commercial agriculture and related sectors – providing funding products and business development support services	<b>~</b>					~	
Prosper Cashew	Program supporting processors, equipment manufacturers, and other VC actors in West Africa (i) accessing funding through a Cashew Catalyst Fund and a match-making facility with investors and (ii) building their capacity through TA	<b>~</b>	~					<b>~</b>
Social Impact Incentives (SIINC)	Funding instrument that rewards high-impact enterprises with time- limited premium payments for achieving social impact					~		
Smallholder Safety Net Upscaling Program (SSNUP)	Multi-fund TA program to strengthen safety nets of SHFs and to encourage investors to consider new investments and increase in investments in agricultural value chains				<b>~</b>			

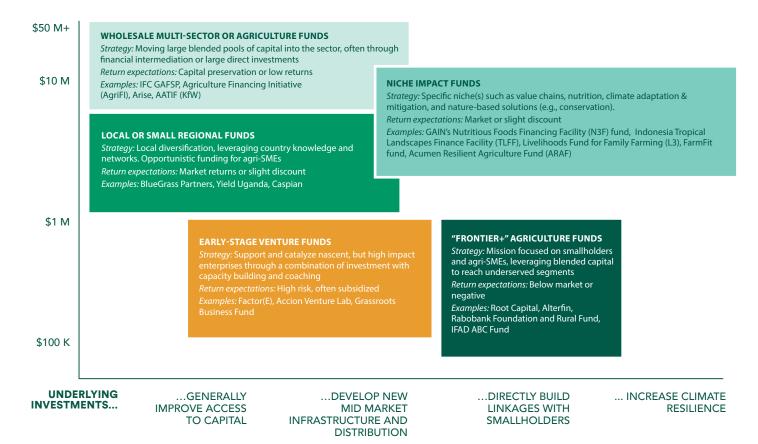
### 4.3 Using specialised funds as a channel of blended finance

While 80% of current funding is supplied by local commercial banks, many capital providers are increasing the range and volume of agri-SME finance by supporting the development of specialised funds (e.g., impact-oriented or VC) as a channel—and, in doing so, pursuing specific impact themes, such as gender inclusion or climate adaption.

Since 2017, when ISF developed its typology of five categories of specialised funds,<sup>33</sup> a number of new examples have emerged. Some are either repurposing their thesis to focus on or are **specifically focused on increasing the climate resilience of agri-SMEs** by investing in or retrofitting their investment into climate change mitigation, adaptation, and nature-based solutions. The last four years have also seen **increased attention to, and investment in, agtech across sub-Saharan Africa and Southeast Asia—driven by early-stage venture funds**. One example can be seen in the record USD 115 million raise by India's DeHaat marketplace.<sup>34</sup>

### FIGURE 13: SPECIALISED FUND TAXONOMY

### Landscape of specialised funds



Source::ISF, "The Fund Manager Perspective, Moving the needle on inclusive agribusiness investment", May 2017

<sup>33</sup> ISF Advisors (2017). "The Fund Manager Perspective, Moving the needle on inclusive agribusiness investment."

<sup>34</sup> https://agfundernews.com/dehaat-farmer-marketplace-scores-115m-in-indias-biggest-ever-agtech-round.html

EARLY-STAGE VENTURE FUNDS: Recent years have seen the emergence of more high-risk "impact venture" funds and other accelerators (e.g., Small Foundation partnership with Founders Factory to create and scale 18 agtech startups, The Nature Conservancy Venture Fund, Mercy Corps Ventures, Ankur Capital, or Omnivore in Asia) dedicated to supporting what this report would categorise as "niche" or "high-growth" ventures. The emergence of these more commercially oriented venture funds to invest in the promise of agtech is heavily concentrated in a small subset of countries—including Kenya, Nigeria, South Africa, India, and Singapore—and comes against the backdrop of 8-10 years of heavy grant-based investment by donors such as the Mastercard Foundation, Gates Foundation, and USAID. While many of these early donors established a groundswell of new digital agriculture startups (with over 700 catalogued by GSMA in 2020<sup>35</sup>), many have struggled to transition from primarily grant funding and establish a more commercial mindset and model. Past ISF research into digital agricultural Platforms, insurance, and data has identified a growing "valley of death" at the seed and series A investment stages for many of these agtech companies. At the same time, a number of new impact investors and commercial funds are beginning to invest in those agtech companies that are successfully moving to series B and beyond. As this landscape of providers continues to evolve, and more climatesmart solutions come to market, we believe this critical part of the finance market can continue to be served through specialised funds.

by local or regional teams. While many local fund managers lack the required track record and network to access international funding, they are often set up to operate with lower-cost structures, can provide deeper local insights and knowledge, and can offer stronger links for local investor participation. For instance, Investisseurs & Partenaires pioneered a fund-of-fund<sup>36</sup> approach in West Africa for first-time managers—with two funds raised to date—providing seed capital, technical assistance, and fundraising support. Part of those local funds' capital has been provided by local or regional investors. Over time, growing this local fund management capacity or establishing more locally embedded fund-management teams will be an important step in refining the efficiency and effectiveness of this channel.

Despite the strong push for climate finance, too few funds focus specifically on agri-SME climate resilience. Those that do often retrofit their investments into one of the climate-focused categories. For example, Acumen ARAF's investment in Tomato Jos claims that the *increase in smallholder farmers' productivity translates into higher and more diversified incomes, which in turn improves their livelihoods and increases resilience to climate change.*<sup>37</sup> However, this does not mean that the financing actually goes toward investing in tools, technologies, or practices that will help these farmers adapt to climate change.

### 4.4 Reflecting on the role and positioning of public capital providers

Traditionally, blended finance structures are seeded by public or private concessional sources of capital with the stated objective of mobilising private, commercially priced capital. According to Convergence, in 2019 IFIs/DFIs deployed about USD 1.9 billion in concessional capital and mobilised another USD 5.1 billion of their own financing at commercial terms, across sectors. However, these sources of funding have failed to mobilise private capital en masse—with ratios of USD 1.1 in private capital and USD 2.9 of IFI/DFI/MDB commercially priced capital mobilised for every one dollar of concessional capital. While it is always a goal to leverage capital from private markets, this global picture of blended finance puts into context the disproportionate importance of development-oriented funding sources in supplying the capital that currently flows to agri-SMEs in the sub-commercial market.

<sup>35</sup> GSMA Digital Agriculture Maps

<sup>36</sup> A fund-of-funds is a pooled investment fund that invests in other types of underlying funds.

<sup>37</sup> https://arafund.com/tomato-jos/

For this report, we interviewed multiple IFI/DFIs and ODA providers to understand their approach to blended finance, level of concessional vs. commercial capital, use of blended finance structures, and key priorities; as well as fund managers to understand their experience and perception of the different capital providers.

Interviews confirmed the understanding that DFIs are the primary source of capital and operate within stringent mandates, not unlike private investors (in terms of return, sector exposure, and risk management). One of the interviewed fund managers reported that "DFIs were instrumental in helping the first generation of impact-oriented funds to launch; however, it feels today like there is a lot of positioning and communication in favour of blended finance which is contradictory to the actual support they lend as they keep investing and sponsoring the same established funds." Other interviewees also reported that DFIs are fairly inflexible, at times bureaucratic and slow in their approach to investing in agri-SMEs. Their ticket sizes are usually in excess of USD 10 million and the targeted rate of returns are at commercial levels (i.e., high single digits when reported by DFIs). This is driven by their shareholders—most often their national government and, at times, private investors (e.g., FMO private placement on public markets). Expectations for DFIs to bend their risk-taking and rate of return rules to mobilise private capital are therefore misplaced, unless and until their prime backers adjust their mandates.

Alongside DFIs, ODA donors or philanthropic investors often provide the first tranche of catalytic capital to mobilise DFI funding or are the first to fund innovative blended finance structures. Funding from the same governments are channelled through their foreign affairs departments in support of a similar development agenda but with larger latitude for innovation and concessionality. For example, the Dutch Ministry of Foreign Affairs (MinBuZa) invests in blended finance structures directly (e.g., Aceli Africa) with impact objectives foremost and capital preservation as conditionality. Another example is the UK Foreign, Commonwealth and Development Office's investment in the Africa Agricultural Development Company (AgDevCo) to grow sustainable and impactful agribusiness. In other instances, philanthropic investors provide the first-loss tranche necessary to de-risk DFIs. For example, one interviewed manager at an impact-first family office reported that "a first-loss investment tranche of USD 500K in the capital stack of a fund was instrumental to mobilise funding from the DFC."

When IFIs and DFIs innovate or take a more lenient approach to blended finance, they usually do so off their balance sheet. For instance, IFC's Global Agriculture and Food Security Program (GAFSP) is a facility managed on behalf of six donor countries. For every investment its Private Sector Window executes, there is an expectation of IFC co-investment (operated through its standard credit process) that GAFSP de-risks; the objective is to achieve, at minimum, capital preservation.

### CALL-OUT: OVERVIEW OF KEY PUBLIC CAPITAL PROVIDERS

- Belgian Investment Company for Developing Countries (BIO) Belgium's DFI invests in SMEs, financial institutions, and infrastructure projects, contributing to socio-economic growth in developing countries—with agriculture as one of its core foci. In pursuing its investment strategy, BIO is reportedly known for smaller ticket sizes and its close collaboration with peers from the European Development Finance Institutions (EDFI) to co-invest. For instance, BIO is an equity investor in Incofin's India Progress Fund, which will invest 50% of its portfolio in the post-harvest agri-food value chain.
- CDC Group The United Kingdom's DFI invests in a diverse set of sectors—from infrastructure to
  financial services and manufacturing—but as one of the world's first DFIs, CDC has historically been
  committed to the agricultural sector. CDC's comparative strength as an investor is perceived to be
  in equity investment. While CDC seeks commercial returns, it is also innovative in its approach to
  catalysing investment. For example, CDC is currently piloting a so-called Kinetic facility with funding
  from the FCDO. This facility is off CDC's balance sheet and aims to invest in innovative business
  models in nascent markets to promote inclusive and sustainable livelihoods.
- Development Finance Corporation (DFC) USA's DFC is the successor to the former Overseas Private Investment Corporation (OPIC) and Development Credit Authority (DCA) of the United States Agency for International Development (USAID). As a diversified development bank, it invests across sectors, including energy, healthcare, critical infrastructure, and technology. With a balance sheet of about USD 60 billion, the DFC is committed to deploy about USD 1 billion in the agricultural sector by 2025, and is flexible in its investment approach with a reputation for providing affordable capital with de-risking solutions on the debt side. For example, DFC has recently invested USD 5 million in Twiga, a Kenya digital platform, and extended a USD 5.5 million loan to WayCool Foods (India) to increase market access for farmers and reduce food waste and GHG emissions by investing in its cold chain.
- Foreign, Commonwealth and Development Office (FCDO) UK FCDO is a major ODA provider with a wide programme of financial market development activities to mobilise private finance for economic development and ensure it reaches underserved sectors and communities. In the agricultural sector, FCDO supports agribusiness development, direct livelihoods support for farmers and poor beneficiaries, and agriculture research. According to its latest Commercial Agriculture Portfolio Review (2020), FCDO—with a total budget of GBP 2.5 billion for 30+ active programmes—focused primarily on agribusiness investment (GBP 733 million), value-chain development (GBP 479 million), and improving access to finance for farmers (GBP 229 million), such as the Commercial Agriculture for Smallholders and Agribusiness (CASA) programme.
- FMO Entrepreneurial Development Bank (FMO) Netherlands' DFI is recognised for its strong
  expertise and leadership in the agricultural sector, linked to its country and companies' expertise, with
  over USD 1 billion invested. FMO primarily targets commercial rates of return and aims to impact
  entire value chains through dedicated funds such as IDH FarmFit, Acumen ARAF, or Fairtrade Access
  Fund. FMO is innovating to increase access to finance with NASIRA, a risk-sharing facility co-funded
  by the European Union which provides guarantees to Tier 1 and Tier 2 financial institutions.
- International Finance Corporation (IFC) A member of the World Bank Group, the IFC focuses exclusively on the private sector in developing countries. In the agricultural sector, IFC invests across the value chain—from farm to retail—with a focus on larger agribusinesses and projects in line with its large ticket sizes, investment capacity, and commercial rates of return expectations. IFC also works alongside the Global Agriculture and Food Security Program (GAFSP), a blended finance facility funded by six donor countries that co-invests with IFC, financing banks and other financial service

- providers (about 50% of capital deployed in the form of credit line or guarantee), as well as large agribusinesses with the potential to aggregate and support smallholders in their value chain.
- KfW Development Bank (KfW) Germany's DFI, KfW defines itself as both an experienced bank and
  a development institution with financing expertise. In the agricultural sector, KfW deploys funds from
  the Federal Ministry for Economic Cooperation and Development (BMZ) with a sole objective of capital
  preservation (i.e., so-called 'black-zero'). KfW is perceived as flexible in structuring investments and is
  recognised for providing first-loss tranche, allowing it to mobilise other DFIs in de-risked investments.
  For instance, KfW has recently anchored and funded Sahel Capital's Social Enterprise Fund for
  Agriculture in Africa (SEFAA).
- Proparco France's Proparco is the private sector financing arm of Agence Française de
  Développement Group (AFD Group). The agricultural sector is one of its five priority sectors for
  investment, in which it deploys capital primarily in West and East Africa but also in Latin America
  and Asia. For instance, Proparco recently invested USD 5 million in Acumen's Resilient Agriculture
  Fund (ARAF) which will invest in agri-startups in East and West Africa that help smallholder farmers
  adapt to climate change.

Interviews with capital managers across ODA providers, major philanthropies, and DFIs/IFIs revealed some clear dynamics that influence how "smart" these capital allocations are toward agri-SME investments. Three key themes were consistently repeated by a number of stakeholders:

- 1. A lack of transparency. As reported by Convergence, transparency is lacking on multiple levels and limits the scalability of blended finance. For instance, one interviewed fund manager expressed frustration with the limited transparency on DFIs' strategies, how they invest, what they are looking for, and where they invest in the capital stack. Indeed, there is no common language or taxonomy of the different structures and approaches used to deploy subsidies in the agri-SME market. Capital providers don't disclose their financial terms. And the evidence base for the efficiency of blended finance structures and channels is limited. As a result, capital providers cannot easily collaborate, and private investors find it difficult to appropriately assess risks and potential returns.
- 2. Potential for increased coordination of investments. DFIs and ODA donors source capital from their national governments. While there is some coordination of investment strategies and funding allocations at a national level, the sector could benefit from increased collaboration and, where complementarity exists, coordinated co-investments. In addition, each DFI is recognised for its sector specialisation and/or different products, risk appetite, or level of concessionality. For instance, the interviewed representative of an ODA donor indicated they did little to no co-investment with their national DFI (funded by the same government) due to their strict requirements (i.e., risk profile and return expectations) and slow, bureaucratic approach to investment; rather they reported preferring to work with their international ODA counterparts. At a country level, increased coordination likely requires more intentional strategy and intergovernmental dialogue about how different funding institutions can collaborate. However, there is also the opportunity for coordination across national governments that are interested in the same agenda, which typically requires specialised and impartial fora (e.g., G20 initiatives, WEF, AFRF, etc.) to facilitate.
- 3. Large and repeated allocation of grants to traditional development/technical assistance programmes with limited tracking of efficiency in the use of funds. As reported by CASA in its review of inclusive TAF deployed by DFIs (2020), "while successful case studies exist (..), and the value of TA is recognised by an increasing number of investors, fund managers, and private companies, there has been limited quantitative evidence of the return on investment of the TA,

both in terms of commercial and development impact". This re-joins the call from Convergence to expand the evidence base around the efficiency of the various blended finance channels to improve the allocation and efficiency of subsidies. For instance, anecdotally, some ODA donors interviewed are advocating for a (large) reallocation of funds by ODA providers to direct investments into funds, with the aim of accelerating the mobilisation of private capital for climate resilience and food systems transformation. First-loss funding (e.g., provided by KfW) is often critical to crowd in more investors, particularly DFIs.

# CALL-OUT: LEVERAGING PUBLIC FUNDING TO MOBILISE PRIVATE CAPITAL TOWARD CLIMATE MITIGATION AND ADAPTATION FOR AGRI-SMES

Currently, 95% of climate finance is supplied by public sources (i.e., IFI/DFIs, MDBs, and ODA providers). As highlighted earlier, most of this funding is allocated toward low-hanging fruits with a large impact to mitigate climate change. For example, large-ticket investments like the recent pledge from Western nations of USD 8.5 billion in concessionary finance for South Africa's transition from coal to sustainable, renewable energy sources.<sup>38</sup>

To get beyond these low-hanging fruits, the world will have to consider smaller investment opportunities that, in aggregate, can have a significant mitigation or adaptation impact in developing countries. Agriculture is an obvious priority area. The development of carbon pricing and trading systems may generate an influx of private capital that will need to find its way to the right mitigation and adaptation projects. This is a strong opportunity to attract more funding to agri-SMEs (and the broader agricultural sector).

However, to make the most of this opportunity, two critical conditions must be met:

- 1. Public capital providers have to develop and strengthen their private capital mobilisation strategies to leverage their own funding to catalyse more private financing; and
- 2. The ecosystem of intermediation, support, and monitoring and evaluation needs to be enhanced, in order to build awareness and generate demand from agri-SMEs for climate financing products and services, effectively channel these funds, and measure their impact on climate mitigation and adaptation.

This landscape paints the picture of a blended finance landscape where more innovative approaches have been tried over the past decade—from innovative incentive structures to more sequenced application of blended tools to an evolving high-growth venture finance landscape. At the same time, many of the traditional approaches (such as TAF and commercial bank guarantees) seem stuck on a repeating cycle without the accompanying learning and sophistication to understand the comparative efficacy of approaches and drive smarter capital allocation over time. Finally, a lack of transparency, coordination, and genuine private sector participation (as reported by the OECD<sup>39</sup>) are significant issues in the capital markets that are funding the sub-commercial part of the agri-SME market. As described at the beginning of this section, the authors of this report believe the sector must develop more sophisticated ways of comparing the subsidy-to-impact tradeoffs inherent in different blended finance approaches and models.

<sup>38</sup> https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/110321-cop26-western-nations-pledge-85-billion-for-south-african-coal-phase-out

<sup>39</sup> Note: The OECD noted in a 2021 report that "the amounts mobilised from the private sector by official development finance going towards the agriculture sector averaged USD 1.4 billion in 2019, which reflects 3% of the total amounts mobilised in that year".

# 5 Conclusions and recommendations: A long-term change agenda

The persistent USD 106 billion funding gap for agri-SMEs highlights a clear and pressing challenge for collaboration between capital providers, financial service providers (FSPs), and other intermediaries to holistically address the demand and supply pain points highlighted in this report. Yet this challenge is not a new one and—as this report illustrates—there are many segments of agri-SMEs that are being served by different channels.

In this section, we present **four long-term change priorities** that we see as crucial to systematically closing the agri-SME financing gap over time.

# Change priority 1 - Intentionally growing larger numbers of agri-SMEs into commercially investable prospects to anchor local bank markets for finance

For viable local finance markets to exist in the long-term, a segment of large, profitable, and mature agri-SMEs are arguably needed to anchor the market. These agri-SMEs include commercial farms, traders, agri-processors, input companies, and agro-services providers. They would provide a crucial commercial infrastructure to organise markets and create a minimal commercial volume of financing for local banks to establish agri-financing portfolios with comparable risk-return ratios to other sectors. Deepening this commercial layer of agri-SMEs is often difficult but can be helped through:

- Growing agri-SMEs within specific markets: If underlying agricultural markets are not growing (or worse, are contracting) it is typically very difficult for agri-SMEs to grow. This simple insight is not often reflected in the coordination of agricultural market development efforts and agri-SME finance initiatives. With government- and donor-led large-scale market development initiatives continuing to be shaped, there is an opportunity to specifically identify the livelihood-sustaining enterprises, dynamic enterprises, and niche ventures that can grow into market leaders and to design support (financial and non-financial) around their specific needs. Increasingly, and encouragingly, these types of specialist financing supports are being integrated into large market development programmes—such as the USAID-funded Market Systems and Partnerships, IDH FarmFit, and the FCDO-funded CASA. Organisations such as the World Bank, IFAD, USAID, and FCDO should continue to foster this increased alignment.
- Closing the long-term debt and local equity finance gap: To make significant transitions to
  mature, scaled, and robust businesses, many "top of market" agri-SMEs need long-term debt and
  equity for growth investments. Carefully aligned with market development and long-term market
  trends, DFIs that have the right types of commercial capital have the opportunity to work with
  regional development banks and governments that have the market insight to structure this type
  of financing.
- Targeted government support and consistent agricultural development policy: Government positions on trade, taxation, special economic zones, and regulation can have a major impact on the emergence of these larger, commercial agri-SMEs. Government policy and investments should seek to intentionally support the growth of an increasing number of these firms to anchor markets for both agricultural commodities and agricultural finance. While this report has not set out to assess the evidence around which types of policies and government investments can be most effective in supporting these transitions, past ISF research into the role of government concluded that long-term aligned policies at the macro, meso, and micro levels of government are critical.

# Change priority 2 - Developing capacity, incentives, and infrastructure for local banks and funds to profitably serve smaller, less commercial agri-SMEs over time

The supply-side numbers in this report illustrate the limitations of specialised international funds in serving the majority of smaller, less commercial agri-SMEs. While private equity/venture capital funds and impact investors have an important role to play in niche export-oriented value chains and with niche/high-growth ventures, the large majority of agri-SMEs in the market require lower cost, local finance. In the long-term, only local banks, NBFIs, and funds can operate with the cost structure, locally-denominated capital, and local knowledge to meet this need. Developing this local capacity may require the use of subsidy in the short- to medium-term—but over time the goal must be to establish local finance that can sustainably serve the large middle-market of agri-SMEs with less and less subsidy. As with the change priority above, consistent, long-term government policy is key to creating the incentives and operating environment for local financial service providers to make this transition. In addition, this research proposes three tactical initiatives to support this priority, including:

- More local coordination and more effective investment intermediation: In every country, ecosystems of actors—including BDS providers, major multinational corporations, government programmes, industry associations, and local business networks—support agri-SMEs in different ways. With market transparency, investee pipeline development, and investment priming being such labour-intensive and complex undertakings for local financial institutions, there is an opportunity for donors to invest more in intermediation. This could build the natural capacity of local support ecosystems to resolve constraints over time. Regional USAID trade HUBs, AGRA's agri-SME investment hub, and communities that have grown up around accelerators and incubators are good examples of how some of this intermediation can be achieved. However, more innovation is needed in these approaches (a conclusion reached by a recent SAFIN sponsored report into BDS providers in Africa).
- Intentional long-term subsidy: Many commercial banks have enjoyed a rolling set of credit guarantees from international donors for years as risk-offsets to lending into agricultural markets. While the case for these subsidies is often strong, rarely is there a long-term strategy to use short-term lending to establish exactly where ongoing subsidies are needed and where they can be progressively scaled back. Aceli is a laudable recent effort to build a transparent set of scaled subsidies to make these distinctions, and should be studied carefully as an illustration of how to structure short-term subsidies with long-term market-making objectives.
- Building on the potential of agtech: Much has been made of the potential of agtechs to transform agricultural markets, and in many parts of the world this promise is being progressively realised. Companies such as DeHatt in India, Rural TaoBao in China, and SunCulture in Kenya are proving that digital technologies can change how markets operate. For agri-SME finance, these agtechs hold great promise for developing the business models, data, and credit-scoring algorithms required to unlock asset finance, trade finance, and working capital for other agri-SMEs using their services. Donors and impact investors have the opportunity to support this growing cadre of digital agrient repreneurs to both develop these models and ensure that appropriately priced capital is available to test and scale what works.

### Change priority 3 - Making blended finance more efficient and effective

As described in this report, blended finance is a large and significant part of the sub-commercial tier of agri-SME finance through every channel, from commercial banks to state banks to social lenders. While the imperative for smart application of subsidies to develop more viable local finance markets is highlighted above, there is a broader imperative to simply get smarter about how this subsidy is

structured and deployed globally. With scarce public and philanthropic funds, blended finance needs to get more efficient and effective. While that challenge exists across sectors, the thought and evidence required to achieve these goals in agri-SME finance is very specific. Having reviewed the landscape in this report, we believe priority must be placed on:

- Developing a more sophisticated view of the market and shared learning agenda: As described in section 4 of this report, there have been important new approaches over the last 10 years, resulting in a more pluralistic funding landscape. At the same time, traditional approaches to blended finance are largely on a repeating cycle. This report hopefully brings clarity to the overall structure of this market and many of the blended finance approaches being used in the sub-commercial tier. There is an opportunity for leading donors—such as FCDO, USAID, and the World Bank—to sponsor a systematic, long-term learning agenda that can systematically test the efficiency and effectiveness of different approaches.
- Catalysing a new commitment by leading donors, DFIs/IFIs, and public development banks to
  become more transparent, collaborative, and committed to smarter subsidy: Capital managers
  interviewed across institutions expressed genuine interest in coordinating their investments more
  actively with other institutions and in establishing more evidence to guide investments over time.
   For increased transparency, coordination, and learning to be realised, new forums for sharing need
  to be established between peers. This could take a range of forms and could be realised in more
  pragmatic co-investment mandates across institutional divides.
- Establishing more consistent taxonomies, data, and reporting requirements: To progressively get smarter about the deployment of agri-SME finance subsidies, there needs to be clear distinctions between different approaches, as well as consistency in collected data. Similar to the standards established by the MIX marketplace for microfinance, there is a need to establish new, commonly accepted classification systems, metrics, and reporting requirements in agri-SME finance. This could be driven by a range of specialised industry initiatives—such as ANDE, MIX, AGRA, or Grow Asia—but will require sustained donor commitment, and should be linked to both the learning agenda and capital market collaboration referenced above.

### Change priority 4 - Building the infrastructure around climate finance

2021 marked a noticeable shift in the dialogue and impetus around climate change. COP26 sparked new commitments and an increasing awareness about the severity of climate impacts on rural populations in the global south. As the climate adaptation challenge for smallholder farmers and agri-SMEs comes into greater focus and funding is mobilised, there has been a concurrent realisation that the infrastructure to effectively channel this finance where it needs to go does not exist. As referenced in this report, many funders are scrambling to develop the right strategies, with many being accused of greenwashing existing portfolios. At the same time, donors and development practitioners are realising that new models and approaches are needed to distinguish what investments have what effects on mitigation, adaptation, and nature-positive solutions. Over the next five years, it is imperative for agri-SME financing that:

New models and taxonomies are quickly developed and used for investment strategies and reporting. Work has already started on this front, with the EU taxonomy for sustainable activities, the ASEAN taxonomy for sustainable finance, and increasing debate in ESG circles about how to report investments. These international models and standards should be research-led and used as a foundation for the agri-SME finance community to establish commonly agreed approaches to achieving climate mitigation, adaptation, and nature-based solution goals. This work will likely be messy and achieved in parallel from many angles. For example CIAT and the World Bank

recently released a global inventory of 44 Climate-Smart Agriculture (CSA) Technology Clusters and analysis of over 1,700 combinations of technologies,<sup>40</sup> while Mercy Corps' Agrifin programme has been analysing the most effective CSA interventions and Acumen has launched a new Adaptation fund. International donors and DFIs need to step up alongside governments to help develop these standards and sponsor the complex technical work of applying them to specific agendas, such as agri-SME climate finance.

- Large donor investments creates a viable pipeline at scale: Throughout this research, it was clear that almost all donors and international finance institutions are struggling to work out where to invest in climate-related interventions. As referenced above, one challenge is the lack of clearly understood options within agreed taxonomies. However, ISF work and this research clearly reveal that there is also a need for more agri-SME product/service solutions within viable business models. Many of these new solutions will be completely new technologies, such as the early-stage ventures being backed by The Nature Conservancy's new technology accelerator. Some agri-SMEs will be at the forefront of innovating, but many others will be slower adopters of solutions (such as new irrigation, storage, and transport technologies). Donors will have a significant role to play in investing in both the early-stage development and commercialisation of these climate solutions, as well as the expensive new intermediation that will be needed to channel these agri-SMEs into the portfolios of funders.
- Climate expertise is integrated into all channels of agri-SME finance: This report provides a holistic overview of how different agri-SME finance channels serve different segments of agri-SMEs with different financial products. In this landscape, all of these channels have an important role to play in supporting climate mitigation, adaptation, and nature-positive responses. Yet few have the expertise to understand specific climate-related agri-SME needs, design appropriate products, and channel the large volume of climate capital into viable financial offerings. Bridges must quickly be built between traditionally siloed communities of investment practitioners to introduce this climate lens. While some specialised funds, such as the Tropical Landscapes Finance Facility, are starting to bring this climate expertise into the agricultural sector, donors, DFIs, and regional development banks can drive convergence of both thinking and technical expertise through commercial banks, state banks, NBFIs, and impact-oriented funds.

A NOTE FOR INVESTORS: One of the key audiences for this report is international, commercially oriented DFIs and investors. At a quick glance this report might paint a picture of an asset class that is complex, risky, heavily subsidised, and in need of significant local adaptation. In many ways this is true; however, there is a significant and very important role for commercial capital in this market. As is illustrated in Figure 3 of this report, in almost all countries there is a segment of agri-SMEs that can absorb purely commercial capital. Alongside this capital, increasingly sophisticated subsidies are creating space for commercial capital to invest in specialised funds, NBFIs, and commercial banks with portfolios of agri-SMEs that would be sub-commercial prospects. Partnerships with ODA providers, DFIs, regional development banks, and specialised brokers such as Convergence can offer simple ways of accessing these opportunities.

Yet, beyond these niches, global trends are arguably going to rapidly increase opportunities for sizable commercial investments in agtech companies that are rapidly transforming markets, in climate-related agri-SME investments, and in the cadre of agri-SMEs that naturally grow as markets mature and food systems continue to attract necessary investment. We hope this report provides an important global viewpoint on this market and some clear areas to pursue and closely watch in the future.

<sup>40</sup> Sova et al (2018). "Bringing the Concept of Climate Smart Agriculture to Life: Insights from CSA Country Profiles Across Africa, Asia and Latin America."

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# **Appendix I: Channel overviews**

### **Commercial Banks**

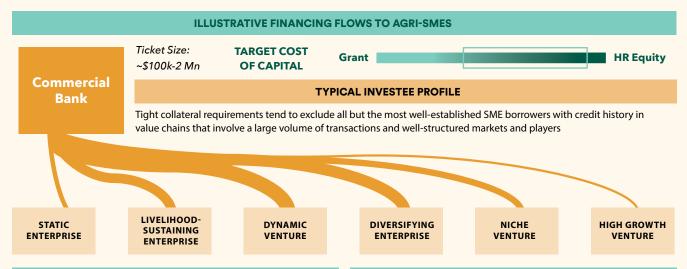
### CHANNEL #1 - COMMERCIAL BANKS

Traditional financial institutions operating under a full banking license, supervised by a national or international banking regulatory agency, and often deposit-taking that serves as the most important (and often only) financing source for agri-SMEs

### **CHANNEL SIZING** ~\$30B **Southeast Asia** ~\$40B **Annual funding** ~\$10B to agri-SMEs in SSA and SEA Sub-Saharan Africa

### **CHANNEL PROFILE**

- Typically, commercial deposit-taking lenders with local footprints via a branch network system
- Provide a diverse range of lending products to agri-SMEs of all sizes/types, although usually highly constrained by tight risk
- The most important supply channel for agri-SMEs given infrastructure and footprint, cost of capital, and knowledge of markets / value chains
- Will typically lend to the most creditworthy borrowers with track records and collaterals



### **PRIMARY PRODUCTS**

- Most often supply short-term working capital, medium to long term asset finance, and capex
- Typically offer medium to long term financing, but will provide various tenors depending on the situation (e.g., VC, creditworthiness, etc.)
- · Banks with agri-specific divisions (prevalent in Southeast Asia and East Africa) often offer innovative ag-products that others cannot

### PRIMARY CAPITAL PROVIDERS

- Primarily **deposit funded**, through offerings of low-interest checking and savings accounts
- In East Africa, according to a 2018 study from Dalberg, local commercial banks had ~70% funding from deposits, ~20% from institutional debt, and ~15% from equity
- Occasionally leverage blended/catalytic support (e.g., guarantees, on-lending from PDBs) from sources such as ODA / Public Donors

- · Commercial banks play a large role in agri-SME climate financing given their significant market-leading positioning; however, they typically focus on specific use-cases, limiting their reach and impact
- · Banks typically provide larger climate-focused loans requiring strict collaterals, primarily supplying SMEs in tight value chains with the ultimate end-goal of mitigation (often at the SHF level)
- · Case study Equity Bank Kenya: Provides a number of climate-focused programs, products, and technical assistance to agri-SMEs with the aim of both adaptation and mitigation. In 2019, received \$100M IFC loan aimed at increasing the bank's lending program to SMEs engaging with climate operations across sectors, including climate-smart agriculture

### **NBFIs**

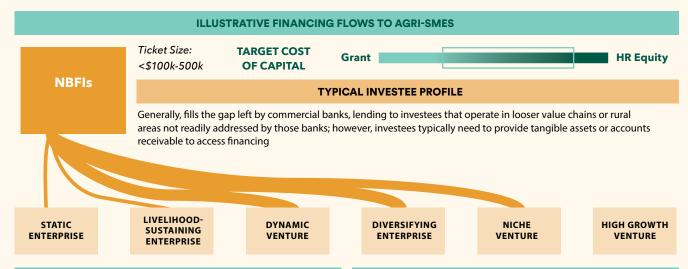
### **CHANNEL #2 - NON-BANKING FINANCIAL INSTITUTIONS**

Financial institutions not operating under a full banking license or not supervised by a national / international banking regulatory agency, such as leasing institutions, factoring institutions, or cooperatives

# CHANNEL SIZING Southeast Asia Southeast Asia SSA and SEA Sub-Saharan Africa

### **CHANNEL PROFILE**

- Generally smaller than banks or investment funds, can span the range of social and commercial interests, and tend to focus on specific product offerings (e.g., asset leasing or short-term credit lines) or specific borrower segments (e.g., certain value chains)
- Often focus on smaller ticket sizes and those rural agri-SMEs that are further upstream in VC
- An important source of financing to **rural communities underserved by banks**, but often serves small-scale producers
  rather than agri-SMEs



### PRIMARY PRODUCTS

- Generally offer short-term working capital for agri-SMEs through specialized products
- Key specialized products include: factoring, invoice discounting, leasing, equipment financing, contract financing, warehouse receipt financing, and cooperative or producer group guarantees
- Will often focus on smaller ticket sizes that are often exposed to more credit risk (and in turn, results in higher costs of funds)

### PRIMARY CAPITAL PROVIDERS

- NBFIs typically use existing collateral, either physical (e.g., movable assets) or financial (e.g., accounts receivable), to lend to clients
- Donors such as ODA / Philanthropy / DFIs have begun to recognize the importance of NBFIs in serving currently underpenetrated markets and often provide guarantees and concessional capital to NBFIs

- NBFIs represent an **important**, **but as of yet very small**, **source of climate funding to agri-SMEs** segments **crucial to climate finance in agriculture**, such as input suppliers (e.g., fertilizer suppliers) and transportation SMEs
- These under-financed agri-SMEs will be crucial to establishing **more sustainable production systems**, meaning that NBFIs could play a large role in climate financing moving forward
- Case study NBFIs in Kenya: Facilitated by the FCDO's StARCK+ program (a wide-ranging program to support Kenya's National Climate Change Action Plan), NBFIs such as MFIs and insurance providers provided financing across various agri-SME end uses, including those working in key climate resilient value chains (e.g., cassava) and SME processors that reduced emissions while increasing productivity

### **Public Development Banks**

### CHANNEL #3 - PUBLIC DEVELOPMENT BANKS

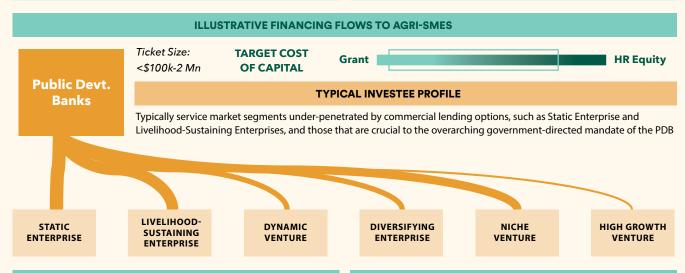
State-owned or financed financial intermediaries specializing in providing mostly short-long credit—often subsidized—to promote the economic development and specific agenda of the country or region (e.g. industrialization or infrastructure development)

# **CHANNEL SIZING** ~\$3B **Annual funding** to agri-SMEs in **SSA and SEA**

Sub-Saharan Africa

### **CHANNEL PROFILE**

- · Focuses on the economic and (often) social agenda of the country or region, driven primarily by government strategy
- Often provides a similar range of lending products as commercial banks, but typically with lower risk limits and collateral obligations
- · Agri-specific PDBs typically focus on farmers rather than valuechain actors, while SME-specific PDBs will focus on SMEs across
- PDBs can also act as capital provider by on-lending to commercial banks



### PRIMARY PRODUCTS

- Often provide traditional products found at more commercial banks, such as short term  $\boldsymbol{working\ capital},$  short-long term  $\boldsymbol{asset}$ finance, and capex, but to less credit-worthy investees
- Often provide innovative or niche products, such as climate financing, to support agenda
- Typically offer other support services and technical assistance in addition to financing

### **PRIMARY CAPITAL PROVIDERS**

- Domestic (or regional) governments provide funding through share capital, borrowing and deposits, trust funds, subsidies, tax incentives, and various other means
- Governments also support PDBs by issuing long-term bonds at relatively low prices
- ODA from HICs also plays a major role (especially in agri-PDBs) in funding PDBs in LICs

- While PDBs play a large role in climate-financing across the agriculture space, given their mandate to focus on specific government agendas (many of which are now climate-related), these institutions rarely focus on agri-SME financing and instead pursue larger infrastructure and land use outcomes
- PDBs most often provide low-cost project debt and project level non-concessional debt, typically aimed at adaptation (with a small minority of these funds aimed at mitigation)
- Case study African Development Bank: Has committed to allocate ~15% of total climate financing (~\$17B total) over next two years to agriculture, with actions across the entire value chain. SME-specific financing and catalyzing efforts are carried out primarily by the Agriculture Finance and Rural Development Department and include focused funds from the AfDB's Green Climate Fund

### **Social Lenders & Impact-Oriented Funds**

### CHANNEL #4 - SOCIAL LENDERS AND IMPACT-ORIENTED FUNDS

Investment funds providing equity and/or debt to agri-SMEs while seeking at a minimum capital preservation to possibly generate some minimal risk-adjusted return as well as a social, economic, or climate impact

# **CHANNEL SIZING Annual funding** ~\$2B to agri-SMEs in **SSA and SEA**

Sub-Saharan Africa

### **CHANNEL PROFILE**

- Often fill critical financing gaps in the markets left behind by the larger commercial and development banks, as they are more willing to take on risk while seeking impact and additionality
- Large presence in SSA with ~45% of all agri-SME-focused funds analyzed by a 2021 IFC study found there (~13% of these funds found in Asia)
- Typically have substantial agricultural expertise, appropriate lending terms, and access to lower cost, impact focused capital, but limited in country presence to service loans cost effectively

### **ILLUSTRATIVE FINANCING FLOWS TO AGRI-SMES** Ticket Size: **TARGET COST** HR Equity Grant ~\$100k-5 Mn OF CAPITAL Impact-Oriented **TYPICAL INVESTEE PROFILE Funds** Given the wide ranges of mandates (both impact and financial), IOFs will provide finance to agri-SMEs across the six growth pathways. However, they typically lend in hard currency and thus work most often with producer groups and traders/processors in export-oriented value chains such as coffee and cocoa. IOFs will also target smaller and/or earlier-stage agri-SMEs LIVELIHOOD-STATIC DYNAMIC DIVERSIFYING NICHE HIGH GROWTH SUSTAINING **ENTERPRISE ENTERPRISE VENTURE** VENTURE **ENTERPRISE**

### **PRIMARY PRODUCTS**

- · Many funds are able to match the relevant type of financing with specific activities
- Short-term activities are aligned with short-term WC and trade financing, medium-term financing relies primarily on loans and subordinated loans, and LT financing can use subordinated loans, mezzanine finance and equity investments
- Often provide technical assistance, a key differentiator to other financing channels

### **PRIMARY CAPITAL PROVIDERS**

- Most IOFs source capital from **ODA / Donor / Philanthropy** as grants for TA, first-loss equity, or guarantee (e.g., ~60% of funds source from foundations and ~50% from family offices)
- Capital Markets are a growing portion of funding for IOFs, as both institutional and retail investors focus more on impact goals of their portfolios
- Private companies (e.g., as large multinational agri-businesses) will also often fund IOFs

- · While IOFs provide a relatively small portion of overall agri-climate financing, their focus on agri-business investments make them a crucial (and growing) channel for agri-SME specific climate financing
- IOFs often channel climate finance solutions to both agri-SMEs and producers through blended resources from public and private sectors; this blended approach offers significant advantages moving forward
- Case study Meloy Fund for Sustainable Fisheries: While the vast majority of IOFs include some climate-metrics in their impact goals, the Meloy Fund represents a smaller sub-section that elevates these metrics to be the key outcome. The Fund aims to place ~1.2 million hectares of coastal habitats in SE Asia under improved management by making debt and equity investments in fishing-related enterprises over the 10year life-cycle of the fund

### **Private Equity and Venture Capital**

### CHANNEL #5 - PRIVATE EQUITY AND VENTURE CAPITAL

PE and VC funds target private companies at specific stages of their development; however, both provide mostly equity or equity-like financing and incorporate some form of impact objectives by virtue of operating in sub-Saharan Africa and South-East Asia

### **CHANNEL SIZING**

**Annual funding** to agri-SMEs in **SSA and SEA** 



~\$600M



~\$500M

Sub-Saharan Africa

### **CHANNEL PROFILE**

- While many PE/VC funds operating in SSA and SEA incorporate some form of impact objectives, there is a subset of funds that clearly maintain a target cost of capital at or above market rate
- There is significant overlap between this channel and the 'IOF' channel, however, this channel distinguishes those funds seeking commercial returns based on a multiple of IC or IRR
- Fund partners' expectations around risk-adjusted returns, ticket size, and investment horizon often don't match up with the investment readiness, scale, and capital strategies of agri-SMEs

### **ILLUSTRATIVE FINANCING FLOWS TO AGRI-SMES**

**Private Equity** / Venture Capital

Ticket Size: ~\$100k-5 Mn **TARGET COST OF CAPITAL** 

Grant

**HR Equity** 

**TYPICAL INVESTEE PROFILE** 

Due to the return requirements of both LPs and GPs PE and VC instruments can only be used in practice for businesses that can generate rapid growth in turnover and profits; VC funds typically focus on early stage agri-SMEs with high growth potential while PE funds typically focus on high-growth potential companies with more established track records

STATIC **ENTERPRISE**  LIVELIHOOD-SUSTAINING **ENTERPRISE** 

DYNAMIC

DIVERSIFYING **ENTERPRISE** 

NICHE **VENTURE**  **HIGH GROWTH** VENTURE

### **PRIMARY PRODUCTS**

- VCs provide high-risk growth equity, convertible debt, and
- PE funds offer similar products of equity, convertible debt, and (slightly more often) mezzanine debt; ticket sizes are typically larger than VCs
- Funds will also often use external consultants to provide Business **Development Services (BDS) and training to their investees**

### **PRIMARY CAPITAL PROVIDERS**

- PE and VC funds primarily source funding from capital markets and (less often) DFIs
- · Occasionally, funds may receive some (indirect) and limited support from **ODA/Public Donors, Philanthropies, or MDBs** in the form of grants or TA/loans to their portfolio companies
- Usually exit from investments after 5-8 years, whenever the PE/VC investor no longer adds value, or a good divestment opportunity presents itself

- PE / VC funds often have a general focus on climate financing when working in agricultural value chains in SSA and SEA, although the actual financing coming from these channels remains relatively limited and sourced from a few key players with direct climate and agri-SME
- · VCs represent the bulk of climate financing to agri-SMEs from this channel, as they seek to find early-stage companies with high growth potential, many of which have pursued a climate angle

# **Appendix II: Sizing methodology**

## Sizing methodology - Overall Agri-SME Financing Demand

SIZING METHODOLOGY - OVERALL AGRI-SME FINANCING DEMAND					
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Total number of SMEs operating in Sub-Saharan Africa and Southeast Asia (Millions of SMEs)	~1.5M in Sub-Saharan Africa ~1.7M in Southeast Asia	IFC and SME Finance Forum, "MSME Finance Gap Database" 2018			
% of all SMEs that are considered agri-SMEs	~10% in Sub-Saharan Africa ~5% in Southeast Asia	A multistep process was used to find the proportion of SMEs that can be considered agri-SMEs in both regions:  In Southeast Asia:  1. The Asian Development Bank's MSME Database records the percentage of SMEs in each reporting country that falls within the 'agriculture' sector as defined by the ISIC Sector Definitions. Thus, this proportion does not account for things such as food processors / manufacturers / mills (typically falls under "manufacturing") or traders & exporters.  2. To supplement this, "Food and beverages as % of value added in manufacturing" data from The World Bank was applied to the % of SMEs the were segmented in manufacturing to find "agri-manufacturing-SMEs".  3. This results in a more holistic set of agri-SMEs as a proportion of all SMEs In Sub-Saharan Africa:  1. No universal proportion of SMEs that are in agriculture exists for SSA, so benchmark countries were used to establish this number. SSA was broken into three regions (West Africa, East Africa, Southern Africa) and three benchmark countries were selected for each region based on ensuring full coverage of agriculture as a % of GDP and overall income level. Primary research into each countries SMEs distribution by sector relied on national-level reports (e.g., national SME surveys). From these, an average proportion of SMEs that are in agriculture was established for each region  2. This number was supplemented with SMEs defined as manufacturing but in the food and agriculture space using the same method outlined above with Southeast Asia  3. This results in a more holistic set of agri-SMEs as a proportion of all SMEs			
Average funding need per SME (Thousands of USD)	~700 in Sub-Saharan Africa ~800 in Southeast Asia	Triangulation between figures cited in ISF Advisors' past work with AINFP, Dalberg's "Economics of Agri-SME Lending in East Africa" 2018, Aceli's "Bridging the Financing Gap: Unlocking the Impact Potential of Agricultural SMEs in Africa" 2020, IFC and SME Finance Forum, "MSME Finance Gap Database" 2018, and Asia Development Bank's "Southeast Asia Regional MSME Database Report" 2020			

# **Sizing methodology - Overall Agri-SME Financing Supply**

SIZING METHODO	ING METHODOLOGY - OVERALL AGRI-SME FINANCING SUPPLY		
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE	
Total amount of existing financing supplied to SMEs operating in Sub-Saharan Africa and Southeast Asia (Billions of dollars)	~70B in Sub-Saharan Africa ~250B in Southeast Asia	IFC and SME Finance Forum, "MSME Finance Gap Database" 2018  For Southeast Asia, the SME Finance Forum database was supplemented and triangulated with figures from the Asian Development Bank's MSME Database	
% of funding supplied to SMEs that is targeted at agri-SMEs	~15% in Sub-Saharan Africa ~13% in Southeast Asia	<ol> <li>Different processes were used to find the proportion of SMEs finance that can be considered targeted at agri-SMEs in both regions:         In Southeast Asia:     </li> <li>The Asian Development Bank's MSME Database records the percentage of existing SMEs finance in each reporting country that falls within the 'agriculture' sector as defined by the ISIC Sector Definitions. Thus, this proportion does not account for things such as food processors / manufacturers / mills (typically falls under "manufacturing") or traders &amp; exporters.</li> <li>To supplement this, the same proportion of manufacturing that is agricultural based that was applied to the volume of SMEs was also applied to the value, resulting in a more holistic current funding for agri-SMEs</li> <li>In Sub-Saharan Africa:</li> <li>Based on triangulation between analysis of Aceli's "Bridging the Financing Gap: Unlocking the Impact Potential of Agricultural SMEs in Africa" 2020 that found ~10% of commercial bank's SME portfolio goes to agri-SMEs, analysis of Dalberg's "Economics of Agri-SME Lending in East Africa" 2018, and analysis of ADB's SME Database (see above) that showed agriculture (and ag-manufacturing) accounted for 13-16% of SME financing. Upon review, these sources appeared to undercount existing non-bank lending and so the high end of the range was ultimately used</li> <li>These sources were then triangulated and sense-checked through a more granular analysis/research of individual financing supply channels</li> </ol>	

# **Sizing methodology - Commercial Banks**

SIZING METHODOLOGY - SUPPLY OF FINANCING FROM COMMERCIAL BANKS					
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Commercial bank lending to agri-SMEs, Southeast Asia (Billions of USD)	~USD 30B in southeast Asia	Asian Development Bank, "SME Monitor Database and Reports" 2020 Agri-specific lending figure supplemented with financing to manufacturing-SMEs that are assumed to be agri-focused (~20% of manufacturing-SMEs) based on the proportion of manufacturing that is agricultural in nature in each country profiled (sourced from various national-level reports). Total numbers triangulated using overall financing figures IFC and SME Finance Forum, "MSME Finance Gap Database" 2018 as well as case study examples from commercial banks in Southeast Asia			
Total amount of existing financing supplied to SMEs operating, Sub-Saharan Africa (Billions of USD)	~ USD 70B in Sub-Saharan Africa	IFC and SME Finance Forum, "MSME Finance Gap Database" 2018			
% of funding supplied to SMEs that is targeted at agri-SMEs	~15% in Sub-Saharan Africa	Triangulation between:  Aceli, "Bridging the Financing Gap: Unlocking the Impact Potential of Agricultural SMEs in Africa" 2020  Dalberg "Economics of Agri-SME Lending in East Africa" 2018  Asian Development Bank, "SME Monitor Database and Reports" 2020  These sources were then triangulated and sense-checked through more granular analysis of individual commercial banks and secondary reports focused on commercial bank lending, such as IFC's "The Unseen Sector" 2018 and prior ISF Advisor work in East Africa			
% of agri-SME funding supplied by commercial banks	~75% in Sub-Saharan Africa	Based on the proportion of all agri-SME financing supplied by commercial banks in Southeast Asia from the Asian Development Bank's "SME Monitor Database and Reports" 2020; triangulated using benchmarking of agri-SME lending as a percentage of overall bank lending in prior research (e.g., Aceli Benchmarking 2020, Dalberg's "Economics of Agri-SME Lending in East Africa" 2018) and case studies from specific countries (e.g., South Africa, Uganda SME)			

SIZING METHODOLOGY – SUPPLY OF FINANCING FROM NBFIS					
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
NBFI lending to agri-SMEs, Southeast Asia (Billions of USD)	~USD 4B in southeast Asia	Asian Development Bank, "SME Monitor Database and Reports" 2020  Agri-specific lending figure supplemented with financing to manufacturing-SMEs that are assumed to be agri-focused (~20% of manufacturing-SMEs) based on the proportion of manufacturing that is agricultural in nature in each country profiled (sourced from various national-level reports). Total numbers triangulated using overall financing figures IFC and SME Finance Forum, "MSME Finance Gap Database" 2018 as well as case study examples from commercial banks in Southeast Asia			
% of agri-SME funding supplied by NBFIs in sub- Saharan Africa	~10% in Sub-Saharan Africa	Based on the proportion of all agri-SME financing supplied by NBFIs in Southeast Asia from the Asian Development Bank's "SME Monitor Database and Reports" 2020, with assumption that the NBFI sector plays a slightly larger relative role in the agri-SME financing than in Southeast Asia. Triangulated using case studies of agri-SME lending by NBFIs in specific countries/regions from prior research (e.g., Aceli Benchmarking 2020, Dalberg's "Economics of Agri-SME Lending in East Africa" 2018			

SIZING METHODOLOGY - SUPPLY OF FINANCING FROM PUBLIC DEVT. BANKS					
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Public Development Bank lending to agri-SMEs, Southeast Asia (Billions of USD)	~USD 3B in southeast Asia	Asian Development Bank, "SME Monitor Database and Reports" 2020  Agri-specific lending figure supplemented with financing to manufacturing-SMEs that are assumed to be agri-focused (~20% of manufacturing-SMEs) based on the proportion of manufacturing that is agricultural in nature in each country profiled (sourced from various national-level reports). Total numbers triangulated using overall financing figures IFC and SME Finance Forum, "MSME Finance Gap Database" 2018 as well as case study examples from commercial banks in Southeast Asia  This figure was then triangulated and sense checked using the AFD's "Public Development Bank Database" 2021, which supplies an overview of total financing from PDBs by country and mandate. Those PDBs operating domestically in SE Asia, with either an agriculture or SME mandate, were considered.			
Overall financing distributed to SMEs by PDBs in Sub-Saharan Africa with agriculture or SME mandates (Billions of USD)	~USD 8 Bn from PDBs with SME mandates in SSA ~USD 3 Bn from PDBs with agriculture mandates in SSA	AFD, "Public Development Bank Database" 2021 Sorted by PDBs operating domestically in Sub-Saharan Africa, with mandates of either agricultural targeted investments or SME targeted investments, as defined by the AFD database			
Proportion of PDB financing for agriculture and SMEs directed to agri-SMEs	~10% in Sub-Saharan Africa	Triangulated between the proportion of lending to agri-SMEs from PDBs in Southeast Asia (~8%), using the Asian Development Bank's "SME Monitor Database and Reports" (2020), and various specific examples taken from annual reports of PDBs in Sub-Saharan Africa (~5-15%) including South Africa, Kenya, Uganda, Ghana, and Nigeria			

SIZING METHODO	SIZING METHODOLOGY - SUPPLY OF FINANCING FROM IMPACT-ORIENTED FUNDS				
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Total existing AUM focused on agri-SMEs in Southeast Asia and Sub-Saharan Africa (billions of USD)	~USD 0.5B in Southeast Asia ~USD 2B in Sub-Saharan Africa	<ol> <li>ISF Advisors, "Rural and Agricultural Fund Database" 2021</li> <li>Used to assess on a fund-by-fund basis the amount of existing AUM that was focused on agri-SMEs by sorting for funds that: 1) Focused on agri-SMEs, 2) were located in the appropriate geographies, and 3) Had below market or concessional targets</li> <li>Numbers validated and triangulated using a key secondary sources, including regional GIIN reports, AVCA Annual Report, SVCA Annual Report, Preqin, and Pitchbook</li> </ol>			

SIZING METHODO	SIZING METHODOLOGY - SUPPLY OF FINANCING FROM SOCIAL LENDERS				
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Disbursements to agri-SMEs in Southeast Asia and Sub-Saharan Africa (billions of USD)	~USD 0.05B in Southeast Asia ~USD 0.2B in Sub-Saharan Africa	CSAF, Open Data Portal 2021 CSAF, "2021 State of the Sector" 2021 Reflects just the disbursements made to SMEs (rather than producers) during 2020			

SIZING METHODOLOGY - SUPPLY OF FINANCING FROM PE / VC FUNDS					
ASSUMPTION FIELD	ASSUMPTION VALUE	SOURCE			
Total existing AUM focused on agri-SMEs in Southeast Asia and Sub-Saharan Africa (billions of USD)	~USD 0.6B in Southeast Asia ~USD 0.5B in Sub-Saharan Africa	A series of (mainly secondary) sources were used to size this channel, with key primary sources ISF's Fund Database and the Pitchbook Database:  ISF Advisors, "Rural and Agricultural Fund Database" 2021  Pitchbook Database 2021, sorted by appropriate geography, deal type (e.g., PE or VC), target investee industry/sector, and target investee size (i.e., to ensure SME status)  AgriProFocus, "Critical Capital for African Agri-Food SMEs" 2018  IFC "Assessment Of Long-term Finance Providers For Small And Medium Agribusinesses" 2021  Collaborative for Frontier Finance 2020  GIIN, "Sizing the Impact investing Market" 2019  GIIN, "Southeast Asia Regional Overview" 2018  GIIN, "East Africa Regional Overview" 2016  Note that there is potentially significant overlap and double counting between this channel of supply and the 'Impact-Oriented Funds' channel. While we have attempted to mitigate this overlap by focusing this channel on just those funds that are clearly seeking commercial returns with capital at or above market, eliminating the double-counting entirely is not possible given the data			

# **Appendix III: Interview list**

CATEGORY	NAME	KEY CONTACT
DFI	CDC	Sami Khan
DFI	DFC	Yasser Toor
DFI	FMO	Hans Bogaard
DFI	KfW	Alexandra Albin
Fund Manager	Clarmondial	Tanja Havermann
Fund Manager	Gawa Capital	Luca Torre
Fund Manager	Mercy Corps Ventures	Tim Rann
Fund Manager	Rabobank	Michael de Groot
Fund Manager	ResponsAbility	Mauricio Benitez
Fund Manager	Root Capital	Willy Foote
Impact Investor	Ceniarth	Harry Davies
Impact Investor	Gatsby Africa	Arjun Bhoopal
Impact Investor	Gatsby Africa	Ryan Bourque
Impact Investor	Rockefeller Foundation	Thomas Belazis
Industry body	SAFIN	Bettina Prato
Multilateral/IFI	Grow Asia	Erin Sweeney
Multilateral/IFI	IFAD	Jorgen Bengtsson
Multilateral/IFI	IFC (GAFSP)	Niraj Shah
ODA/Public donor	Dutch Foreign Ministry	Anouk Aarts
ODA/Public donor	USAID	Songbae Lee
Research/Policy advocacy	Climate Policy Initiative	Daniela Chiriac
TAF	AMEA	Mark Blackett
TAF	SSNUP	Matthew Genazzini







