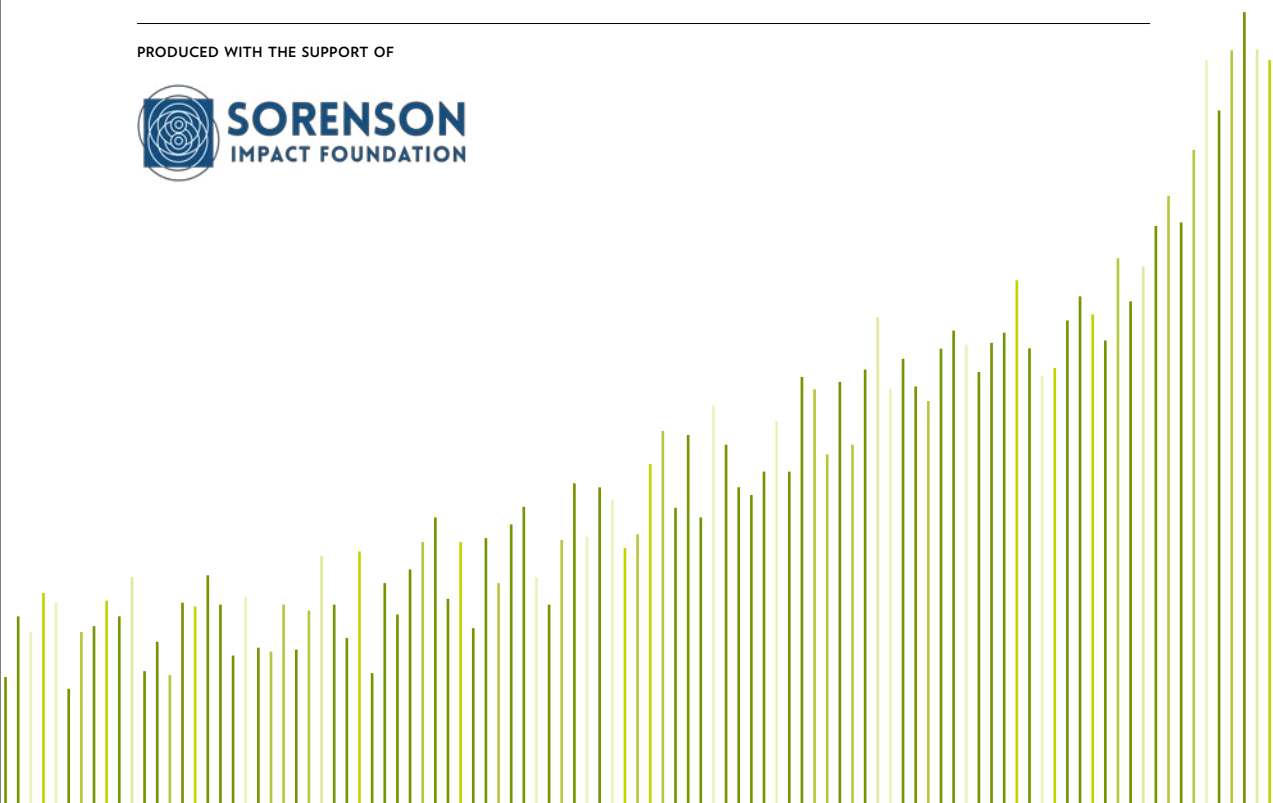
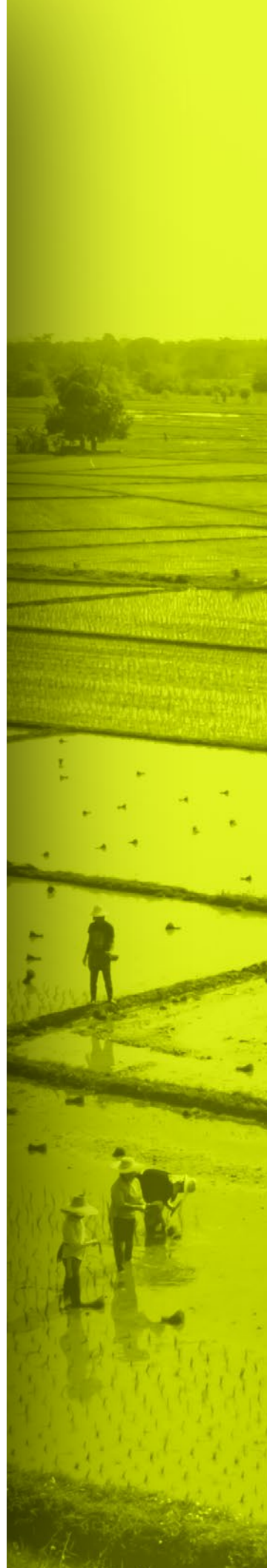


Understanding Impact Performance:

Agriculture Investments

PRODUCED WITH THE SUPPORT OF



Acknowledgments

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Reviewers

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About the Global Impact Investing Network (GIIN)

The Global Impact Investing Network (GIIN) is the global champion of impact investing, dedicated to increasing the scale and effectiveness of impact investing around the world. The GIIN builds critical infrastructure and supports activities, education, and research that help accelerate the development of a coherent impact investing industry. For more information, see www.thegiin.org.

Letter from the Research Director

Dear Reader,

Kofi Annan, former Secretary-General to the United Nations and Nobel Peace Laureate, once remarked: “The world is not ours to keep. We hold it in trust for future generations.”

In the year since we released our first-ever Impact Performance Studies, the world has changed profoundly. Global inequalities have grown because of the uneven ways the pandemic affects the poor, the racially marginalized, and the systemically excluded. The climate emergency is also laid bare in glaring new ways.

Amidst all this change, the tremendous need for the positive social and environment impacts generated by impact investing has grown drastically more pressing.

For impact investors, the challenge begins with allocating capital where it is most needed. To do that, they need a way to compare their impacts. With such comparisons, they could more effectively manage toward solving for the problem they seek to address.

That is why the GIIN is so keenly focused on ‘raising the bar’ on the real results of impact investing. And it is why this rigorous examination of impact performance is even more critical now than it was one year ago.

The 661 annualized impact investments in the agriculture sector included in this study demonstrate remarkable evidence of those real-world impacts. These investments have increased environmentally sustainable farming practices, improved smallholder farmer yields, and increased rural income, profitability, and employment. These are the types of robust impacts our industry can generate when it focuses on outcomes with rigor and discipline.

We believe that a clear focus on impact performance is central to safeguarding the integrity of impact investing in our changing world.

Over the longer term, we are convinced that this new round of research also drives toward other vital industry goals. Building upon a foundation of increasingly standardized impact performance metrics — such as those in the GIIN’s IRIS+ system — these studies pilot a new analytic methodology aimed at helping impact investors allocate and manage capital more effectively.

In time, this standardized methodology moves us closer to the ratings, benchmarks, and other critical resources that will drive industry progress. Such resources will encourage a virtuous cycle of better and better impact investing results, as investors work to demonstrate their impact relative to peers and to the scale of the world’s problems. And they will raise our collective expectations for all types of investing.

Ultimately, the GIIN envisions a world in which every investment decision considers impact performance right alongside financial performance. Such an approach enables all of us to invest in a way that best benefits the world that has been entrusted to us for the prosperity of all future generations — and this *Understanding Impact Performance: Agriculture Investments* study moves us substantially closer toward that ideal.



GIIN Hand

Dean Hand

Director of Research, Global Impact Investing Network

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Executive summary

As the impact investing industry continues to mature, it seeks to welcome new players while deepening its effectiveness. To enable responsible industry growth, support healthy competition, and optimize impact, investors increasingly demand tools and resources to enable the comparison of impact results. Yet some 84% of investor organizations cannot compare impact results with market performance.¹ This resource gap inhibits investors' ability to efficiently deploy capital to high-impact opportunities, identify areas of under- and out-performance in terms of impact, manage investments according to their level of impact performance, and communicate effectively when raising capital or engaging with a broad range of stakeholders.

This study seeks to reduce that information gap, building upon the GIIN's pilot Impact Performance Studies released in October 2019 and the IRIS+ system for impact measurement and management. The GIIN Research Team has sought to analyze impact results achieved in agriculture while also documenting the research process and lessons learned along the way. Ultimately, this research effort aims to drive incremental progress toward impact benchmarks, ratings, and other tools for analyzing and managing performance that are needed to further develop the impact investing industry.

Impact results among agriculture investments

In total, 38 investors reported the impact results of 661 direct, annualized investments in the agricultural sector made in 46 countries, reflecting performance between 2013 and 2019. This sample of impact investments is associated with material progress in at least four crucial areas:

1. **Increased environmentally sustainable farming practices:** During a one-year period, investments were associated with sustainable farming practices on an average of 4,383 hectares of land. Over half of investments in the sample (53%) have a third-party certification and implement soil-protection practices across an average of 3,157 hectares of land.
2. **Improved smallholder farmer yields:** Over a one-year period, investees on average provided agricultural inputs to 14,100 smallholder farmers, agricultural finance to 19,630 smallholder farmers, and services to transport agricultural goods to 8,102 smallholder farmers. For each investment, an average of 11,531 smallholder farmers experienced increased agricultural yields; the average yield per stakeholder associated with each investment was 4,030 kg/ha.
3. **Increased rural income and profitability:** On average, an investee generated increased income for 6,539 low-income individuals, with 62% of all clients served through these investments experiencing increased income.

Ultimately, this research effort aims to drive incremental progress toward impact benchmarks, ratings, and other tools for analyzing and managing performance that are needed to further develop the impact investing industry.

4. **Increased rural employment:** A single investment was associated with an average of 79,758 rural clients, 93 client organizations, and 257 jobs annually, with nearly all investments operating in rural areas (98%), reflecting their role supporting rural economic productivity and livelihoods.

Feasibility of data collection and analysis

Impact investors' ability to contribute data to this study suggests a growing commitment to transparency around impact results and a heightened appetite for impact performance analyses and insights. Further, impact investors demonstrate increasing cohesion around standardized sets of metrics, such as the IRIS+ Core Metrics Sets, as well as standardized methods for collecting, calculating, and reporting performance aligned with these metrics. Consistency in these areas is critical to enabling comparison of results. Yet gaps persist, particularly with regard to analyzing outcomes associated with impact investments based on directly reported outcomes or extrapolated from outputs. This study also represents progress in the sophistication and rigor of the analytic methodology used to assess, compare, and present impact results. The current approach seeks to account for the unique contexts in which investees operate while elevating evidence-backed insights about specific, often interrelated outcomes. Further research will continue to deepen the rigor of this methodology and to broaden its uptake and application in performance analysis.

As impact performance insights grow in depth and volume, so too will investors' ability to leverage those insights to shape their investment strategy, set informed performance targets, screen investments based on their potential impact, manage impact investments with respect to peers' performance, and determine appropriate exit timing, among other crucial decisions. In doing so, investors will be better positioned to achieve their own impact goals, while simultaneously enhancing the industry's ability to move the needle on addressing social and environmental challenges.

This study represents progress in the sophistication and rigor of the analytic methodology used to assess, compare, and present impact results.



PHOTO CREDIT: MYAGRO

Agriculture: A daily necessity

Agriculture plays a fundamental role in daily life, providing livelihoods for one-third of the global population and enabling food production. The sector accounts for 9.5% of Gross Domestic Product (GDP) across developing countries and 26% of GDP for the world's least-developed countries.² In 2018, agriculture added USD 3.3 trillion to the world economy, up 50% from 2008 (USD 2.2 trillion). A total of 2.5 billion people work in the agricultural sector, many residing in rural areas, emerging markets, or both.³ More than nine in ten are informally employed.⁴

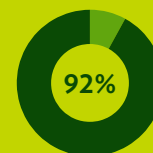
The social and environmental urgencies of supporting agriculture are reflected across the UN Sustainable Development Goals (SDGs), from 'No Poverty' (SDG 1) to 'Zero Hunger' (SDG 2) and 'Sustainable Consumption and Production' (SDG 12). The agricultural sector faces ongoing social and sustainability challenges. Although smallholder farmers — comprising 92% of all individual farmers — produce more than 70% of the worldwide food supply, more than eight in ten smallholder farmers manage fewer than two hectares of land.⁵ Despite their contributions to global food supply, smallholder farmers suffer cyclical poverty and food insecurity, with limited access to markets and agricultural extension services, especially in emerging markets.⁶ Low-income women form the backbone of agricultural labor, accounting for 43% of the sector's workforce in emerging markets, but they hold smaller, inferior farming land compared to male farmers around the world and only receive 5% of all agricultural extension services.⁷

Agricultural production also depends on environmental factors and is susceptible to risks from climate change. Unsustainable farming practices have led to soil degradation, deforestation, loss of biodiversity, mismanagement of water, and greater emissions of greenhouse gases (GHG) around the world.⁸ A third of the planet's soil has already degraded, and more than 90% of the planet's soil could experience degradation by 2050.⁹ Temperature fluctuations due to global warming are also disrupting crop yields and decreasing food supplies.¹⁰ Population growth intensifies the effects of climate change on agriculture, as global food systems must feed a population expected to grow from 7.5 billion today to 10 billion by 2050.¹¹ Evidence suggests sustainable management practices boost yields; smallholder farmers who adopt sustainable farming practices, such as monitoring soil health and diversified organic farming, can increase their crop yield by almost 80%.¹² Increased crop yield often leads to an increase in income and food security for farmers.¹³

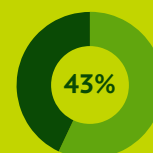
To support inclusive growth in agriculture and sustainably improve living standards, impact investing can play a critical role alongside policy and traditional aid. Investing to support smallholder farmers, encourage sustainable agricultural practices, and integrate value chains will enable farmers to build more resilient and sustainable farms, generate rural employment, and ultimately improve their productivity, income, and sustainability.

The agriculture sector contributed
USD 3.3 trillion
to global economic activity in 2018

2.5 billion
individuals work in agriculture, either formally or informally



of farmers are smallholders



of the agricultural workforce are low-income women

Over 90%
of soil risks degradation by 2050

Sustainable farming practices are associated with an
80%
increase in crop yield

Study motivations

Since the GIIN published its first Impact Performance Studies in October 2019,¹⁴ investors have increasingly demanded comparability of impact performance.

Nearly universally, investors responding to the *2020 Annual Impact Investor Survey* perceive that the sophistication of impact measurement and management (IMM) has progressed over the last decade (98% citing as ‘significant’ or ‘some’ progress).¹⁵ Further, 88% of respondents indicate that, compared to when they first started investing, their organizations’ rigor of IMM practice has increased. Nevertheless, impact investors believe significant opportunity remains for further refinement of industry IMM practice, with the most commonly identified challenge for investor organizations the inability to compare impact results with market performance (84%).

The ability to compare results is a key component of accountability for investors. Lack of accountability for impact specifically gives rise to impact washing, a practice that hampers the impact investing industry’s integrity. Two-thirds of impact investors see impact washing as one of the most crucial challenges facing the market in its next phase of development.¹⁶ Impact benchmarks are the most common resource investors seek to strengthen the credibility of their IMM practice (92% citing as ‘very’ or ‘somewhat’ important); these benchmarks themselves rely on the availability of standardized, analyzed, and comparable impact performance information.¹⁷

The GIIN aspires to see a world in which social and environmental factors are routinely integrated into investment decisions by default.

The GIIN aspires to see a world in which social and environmental factors are routinely integrated into investment decisions by default. Tools and services to support the integration of impact into investors’ routine analysis, allocation, and deal-making activities are one of the six categories of action identified in the GIIN’s *Roadmap for the Future of Impact Investing* as key to achieving this vision.¹⁸ If impact performance is to be taken as seriously as financial performance when informing decision-making throughout the investment cycle to achieve optimal capital allocation, investors need reliable information about impact results and analytics to enable comparison. The *Roadmap* noted that the essential services provided by investment banks, ratings agencies, and data providers must be expanded to incorporate impact considerations and accommodate the needs of the full spectrum of impact investors. Specifically, analysis and allocation tools must be built that integrate all three key elements of performance: risk, return, and impact.

The pilot Impact Performance Study confirmed that it is feasible to aggregate and compare impact results associated with investor activity. This second study, building on the pilot, is motivated by several additional goals:

- to deepen the methodological model that enables comparison of impact performance;
- to consider what social and/or environmental results are associated with impact investors' activities in agriculture; and
- to foster a stronger practice among investors to share and use impact performance data.

The reports address all three goals.

In addressing these questions, the impact investing industry gains greater insight into comparable impact results. In doing so, investors are better able to use impact performance information, alongside risk and return information, to inform key decisions throughout the investment cycle: in setting impact strategy, in screening and due diligence in pursuit of impact, in managing the investment toward a desired impact outcome, and when exiting the investment at a timely point of impact maturity.

In doing so, investors are better able to use impact performance information, alongside risk and return information, to inform key decisions throughout the investment cycle.

Report methodology

Study respondents submitted investment-level, annualized impact performance data for select investments using the GIIN's definition of impact investments.

Sample scope

Organizations participating in this study have made impact investments in the agriculture sector, which has a relatively long track record of impact investing activity and therefore great potential for a high volume of standardized and comparable impact performance information. Study respondents submitted investment-level, annualized impact performance data for select investments using the GIIN's definition of impact investments: investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. The sample included only investments made directly into companies, projects, or real assets in order to avoid potentially double-counting results or conflating investment- and fund-level performance.

Research process

This study was produced through iteration with study participants and advisors, including sector experts, impact evaluators, and academics. A full list of study participants and advisors can be found in Appendix 1. These organizations offered input throughout the research process, as detailed below.

Questionnaire design: To determine which metrics to include in the questionnaire, the Research Team held a series of one-on-one and group discussions to understand the range and overlap of impact objectives in the agriculture sector. Through these calls, the team sought to understand how impact is created in the agriculture sector, investors' theories of change, which metrics investors track, and ways in which impact results should be segmented during analysis. The team constructed a short list of commonly tracked metrics in the agriculture sector based on the IRIS+ Core Metrics Sets,^{*} publicly available impact reports pertaining to investments in the sector, and third-party impact measurement resources, including the Council on Smallholder Agricultural Finance (CSAF), B-Analytics' Sustainable and Smallholder Metrics, and the World Benchmarking Alliance. The draft questionnaire was then shared with impact investors and study advisors for feedback and subsequently further refined.

Data collection: The questionnaire was circulated among impact investors with known activity in the agriculture sector in January 2020. Respondents shared their completed responses with the Research Team over a three-month period; these responses are therefore self-reported. The Research Team then reviewed submissions with respondents to clarify any inconsistencies and to capture the context in which each investment was made.

^{*} At the time of data collection, IRIS+ included Core Metrics Sets for smallholder agriculture. At the time of publication, Core Metrics Sets for sustainable agriculture are under development.

Analysis and drafting: The Research Team designed its analytic approach based on a series of impact pathways. Prior to analysis, the Team tested the proposed approach with investors and study advisors. In analyzing reported data, the Team integrated various investment- and investee-level contextual factors to shed light on both outputs and short-term outcomes associated with sample investments. In some cases, large outliers or responses for which data could not be clarified were excluded from analysis in order to better represent the overall sample. Where relevant, the team tested key assumptions with study participants and advisors, all of which are documented throughout the quantitative analysis sections of this report. Throughout the data collection period, the Research Team additionally sought input and insight from study participants about the feasibility of data collection and reporting, possible use cases of impact performance information, and strategies to understand investor contribution. The Team then synthesized insights on each of these topics, as presented in the ‘Lessons learned’ chapter beginning on page 57.

Upon conducting analysis, the Research Team drafted this report of synthesized findings. Sections of the report were then shared with a subset of study participants and advisors for review to ensure that findings are appropriately and responsibly interpreted.

Analytics

Over the course of this study, the Research Team identified three core, interrelated components of analysis needed to understand investment-level impact results.

1. **Normalization of results** ensures comparability, specifically by exploring the relationship between the size of an outstanding investment in a given reporting year and enterprise value in that same year. Notably, this feature of analysis remains aspirational; data on enterprise value were not collected alongside impact data for this study. Instead, stakeholders identified this as a critical component to analysis later in the research process. Future installments will explore normalized results in depth; this paper focuses on investee-level results associated with investments in the sample.
2. **Assessment of short-term outcomes** leverages data on outputs to better understand outcomes, or changes associated with a given investment among its stakeholders, building upon an evidence base that links Theories of Change to a given outcome or set of outcomes. In addition to capturing the value of outputs themselves, this approach enables investors to derive insights about later-stage effects or deeper impact resulting from an investee’s products, services, or operational model. To conduct this analysis, the team leveraged the IRIS+ Core Metrics Sets and associated evidence base, which comprises academic and field research.
3. **Findings are then disaggregated and clustered** to enable results to be appropriately interpreted and contextualized. Specifically, the Research Team disaggregated results by contextual factors related to both investment (such as timing, terms, and investor engagement) and investees (such as the nature and severity of the social or environmental need being addressed). Incorporating context in this way illustrates how impact results vary under different circumstances, providing a more accurate assessment of impact performance among various segments.

In addition to capturing the value of outputs themselves, this approach enables investors to derive insights about later-stage effects or deeper impact resulting from an investee’s products, services, or operational model.

Study caveats

Building upon the first installments of the GIIN's impact performance studies,¹⁹ this study sought to address a critical knowledge gap facing the impact investing industry — insight into comparable impact results — and as such fits within a broader learning process on impact performance. As with any research, findings should be interpreted in light of certain limitations.

Self-selection bias: Participation in this study was optional. Therefore, as with all performance research, those with poor-performing investments may have been less likely to participate. Respondents may also be more likely to submit data for select, high-performing investments. However, this risk remains relatively low in a study for which all analysis is aggregated and anonymized.

Small dataset: Investors have widely varying portfolio sizes. If one investor had far more investments in agriculture to report than another, their results would wield disproportionate influence on aggregate results, potentially skewing findings. Throughout the report, results are reported both including and excluding outliers to offer greater transparency and insight into both aggregate and typical performance. Furthermore, a relatively small sample size restricts the ability to test for statistical significance or further segment findings. Future updates will seek to expand upon this dataset.

Remaining gaps in data: Respondents were asked to submit data for as many metrics as they could. Naturally, not all metrics are relevant to all strategies within a given sector. Furthermore, additional data collection or reporting constraints, such as confidentiality constraints, lack of data quality, or simply lack of prior data collection in a given area, may prohibit respondents from disclosing certain data. As a result, the dataset underpinning this study includes various gaps and differing sample sizes by metric, as noted throughout the report.

Sample overview

Investor organization background

ORGANIZATIONAL CHARACTERISTICS

For this study, 38 investor organizations shared impact performance results regarding 402 unique investments made by 40 investment funds or vehicles.* Some investors provided multiple years of data for some investments, which resulted in 661 total observations — or annualized investments — across multiple years.

Most investors included in the sample are headquartered in developed markets (71%), with 37% based in the U.S. & Canada, followed by 29% in Western, Northern, & Southern Europe (29%). Meanwhile, just under a third (29%) are based in emerging markets.

Together, investors in the sample manage more than USD 22 billion in impact investing assets. On average, investors in the sample reported assets under management (AUM) of USD 722 million; the median investor has AUM of USD 90 million. Naturally, organization size varied widely, and the three largest organizations accounted for 79% of total AUM.

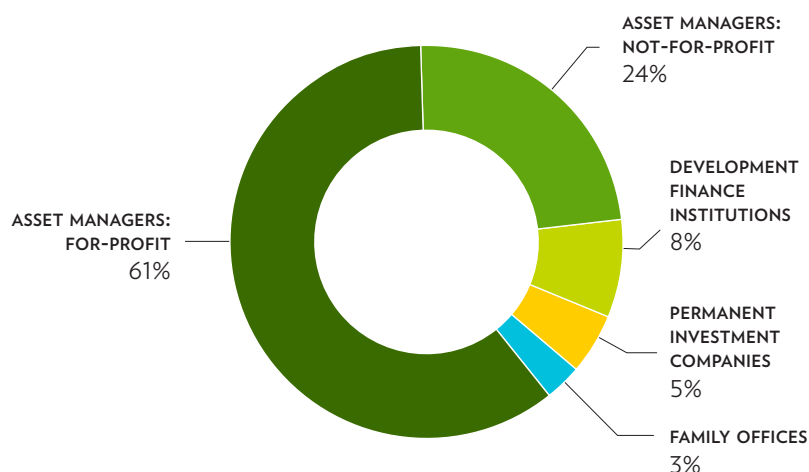
A clear majority of investors in the sample were asset managers (85%), followed by development finance institutions (8%) and permanent investment companies (5%; Figure 1), potentially reflecting this study's focus on direct investments.



* One institutional investor contributed data on seven unique investments and 29 observations made by three of its fund investees.

FIGURE 1: Organization types represented in the sample

n = 38 investor organizations.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

APPROACH TO IMPACT MEASUREMENT, MANAGEMENT, AND ACCOUNTABILITY

Nearly nine in ten investors in this sample assess possible negative impacts during investment screening or due diligence, and 65% actively manage and mitigate negative impacts.

Impact investing is defined by investors' intention to achieve impact results through their investments and by their commitment to measuring and managing those results.* Nearly every respondent organization investing in agriculture sets impact targets as a part of their IMM process (87%), with 65% setting qualitative targets and 70% setting quantitative targets. Almost half (48%) set both. To then measure and manage their impact, investors most commonly used the SDGs (83%), followed by the IRIS Catalog of Metrics (65%) and IRIS+ Core Metrics Sets (61%; Figure 2).† Just over half of investors in the sample are not currently audited or held accountable by a third-party for their impact results (52%), while more than one in five complete external audits (22%). About 17% of investors use external rating systems or indices.

In addition to assessing positive impact, nearly nine in ten investors in this sample also assess possible negative impacts during investment screening or due diligence, and 65% actively manage and mitigate negative impacts. Over a quarter (26%) measure negative or net impact for all of their impact investments, and only one organization does not account at all for their investments' possible negative effects.

* Insights presented in this section are based on data shared by 23 organizations (61% of all organizations in the sample) that also participated in the GIIN's [State of Impact Measurement and Management Practice](#), 2nd Edition report.

† IRIS is the catalog of performance metrics within the IRIS+ system for measuring, managing, and optimizing impact, managed by the GIIN. For more on IRIS+, see <https://iris.thegiin.org/>.

FIGURE 2: Tools, frameworks, and systems used in IMM

n = 23 investor organizations; respondents could select multiple answer options.



Note: 'Other' included sector-specific resources, such as GOGILA, SPTF/CERISE, and CGAP's MIV disclosure guidelines.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Investment features

This sample includes 402 unique investments in agriculture made between 1998 and 2019.* The average investment size was USD 2.1 million, while the median was USD 375,000.† Investment size varied significantly; average investments into the production stage of the agriculture value chain were significantly larger, at USD 5.5 million, than at every other stage of the value chain (USD 1.1–1.6 million).‡ Interestingly, investments made into investees that work across the value chain or that focus on integrating the entire chain were larger, at nearly USD 5 million. Investments made through private equity were also larger as compared to investments made through private debt (USD 2.4 million compared to USD 778,000). Follow-on investments were made into 13% of investees included in the sample.

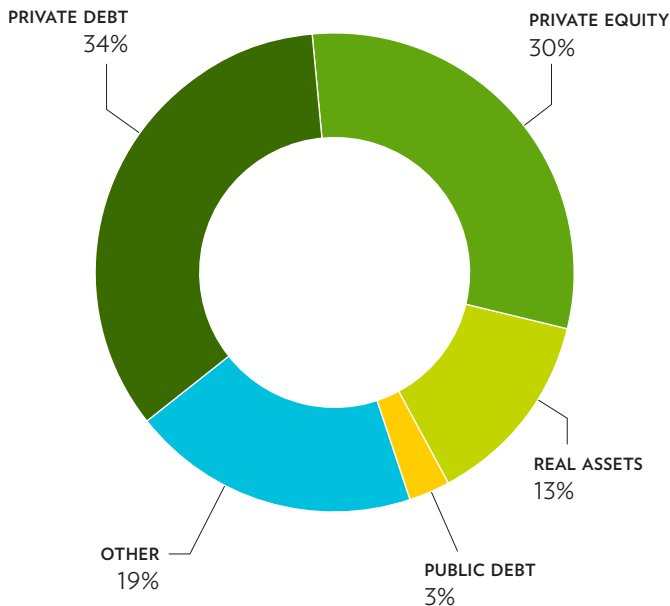
Just over a third of investments were made via private debt, while private equity accounted for 30% of investments and real assets comprised 13% (Figure 3). Capacity-building or non-financial support was provided for nearly half of investments (47%), most often funded through management fees or investment profits (42%). In other cases, capacity-building support was funded by donors, such as government agencies (15%), or via whole or partial cost-share with investees (12%).

* One investor organization submitted data for 200 unique investments; to avoid skewing findings, investment-level data presented in this section are reported without this outlier.
† Including the outlier, the average size of first investment was USD 2.5 million.
‡ The six stages of the value chain used in this analysis are input supply, production, processing, distribution, export, and ancillary services.

Average investments into the production stage of the agriculture value chain were significantly larger, at USD 5.5 million, than at every other stage of the value chain.

FIGURE 3: Investment instruments

n = 201 investments; excludes one outlier.



Note: 'Other' includes loan guarantees, mezzanine debt, combined debt and equity, convertible debt, and uncollateralized debt.
Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 4: Stakeholder engagement mechanisms

n = 121 investments; respondents could select multiple options.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Investor organizations engage with end stakeholders through several means; however, most commonly, respondents indicated that while their investees engage directly with stakeholders, they themselves do not (34%; Figure 4). Only three investments consulted with stakeholders about their needs, either by jointly identifying community need(s) or to developing the investment strategy.

Investee features

Investors in agriculture finance a range of investees, from farmer cooperatives in sub-Saharan Africa to large-scale farms in the U.S. & Canada and agriculture technology companies in South and Southeast Asia. A plurality of investments was made into sub-Saharan Africa (43%), while 21% were made in the U.S. & Canada and about 15% were into East Asia (Figure 5). Interestingly, not a single investment in this sample was made into Europe.

Investments in the sample range in size from a minimum of USD 100,000 into a seed-stage company to a maximum of USD 600 million into a mature, private company. Across 75 investments for which data were made available, excluding two outliers, the average investee's asset value is USD 12.6 million.*

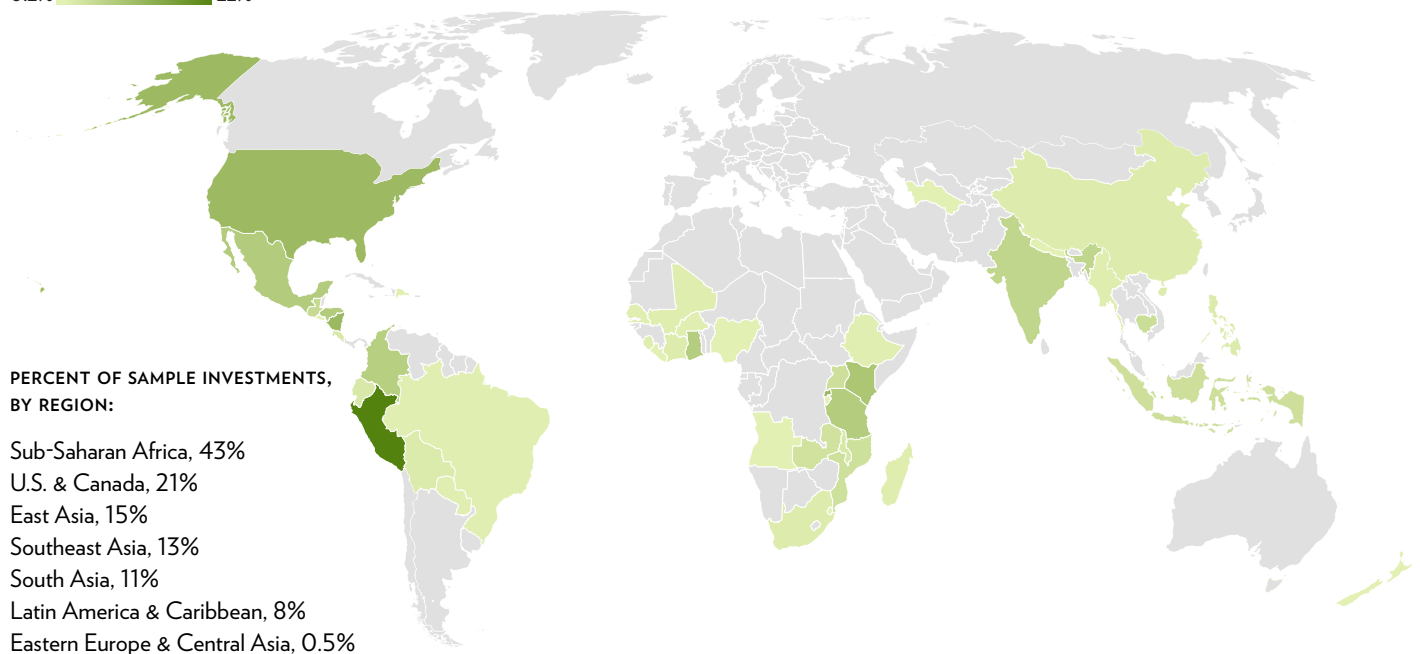
* Including both outliers, the average investee asset value is USD 20.4 million.

FIGURE 5: Countries of investment

n = 402 investments; some investments operated in multiple countries.

PERCENT OF SAMPLE
INVESTMENTS BY COUNTRY

0.2% 22%



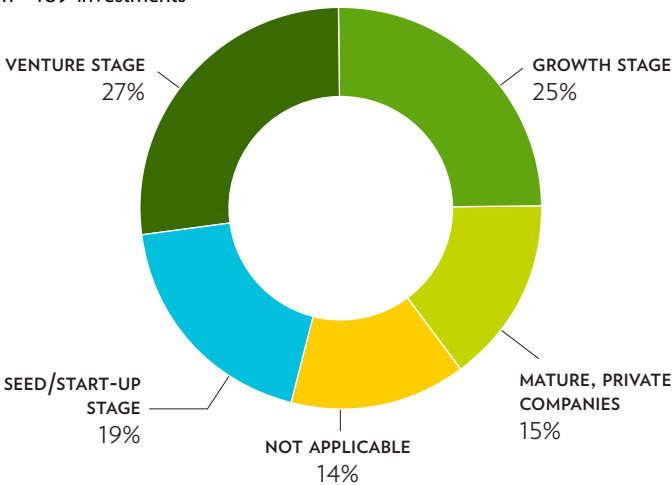
Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

About half of investees were in either the venture (27%) or growth stage (25%) of business at the time of first investment (Figure 6). Several investments were made into real assets or operational projects for which investors said these classifications by stages of business are “not applicable.”

Investees operate across the value chain in agriculture, with nearly half focused on activities related to the production stage (46%) and only 3% focused on each of ancillary services and export (Figure 7). One in ten investees manage operations across either multiple stages or the entire value chain, often focused on vertical integration and farm-to-market models.

FIGURE 6: Investees’ stage of business at the time of investment

n = 189 investments

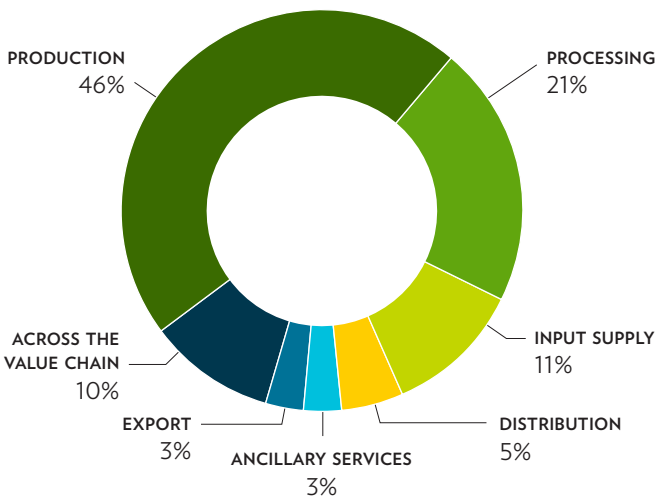


Note: Investee stage of business was not applicable for those investors investing into either real assets or projects/operational models.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 7: Investee stage of the agriculture value chain

n = 173 investments; excludes one outlier



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*



PHOTO CREDIT: THE COMMON FUND FOR COMMODITIES, COOPAC, AND OLIVADO

Performance overview

Investors reported annualized impact results associated with their investments in agriculture between 2013 and 2019. Six in ten investments target impact in smallholder agriculture, more than half aim to strengthen value chains (52%), and 44% target environmentally sustainable agriculture. One-third of investments target both smallholder agriculture and strengthened value chains, reflecting the link between the two. Just 21% target solely environmentally sustainable agriculture.*

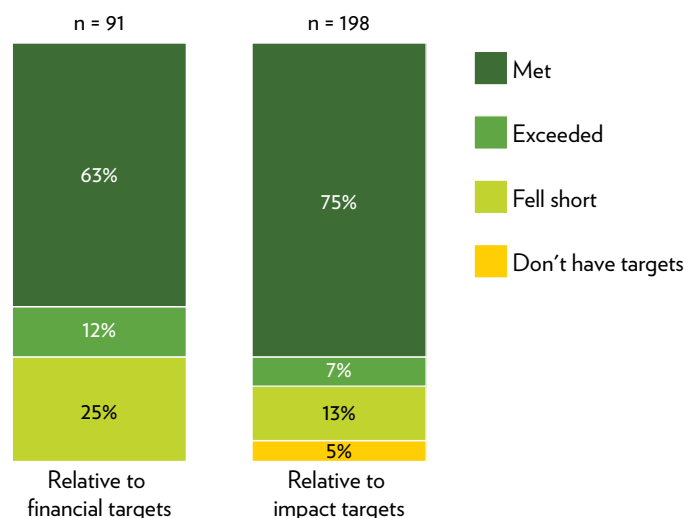
In sample of 121 investments, 96% of private equity investors, 60% of private debt investors, and 58% of real asset investors targeted risk-adjusted, market-rate returns. The average net annualized, realized returns across investments was 10%, and the median was 8%, with some variance by asset class (Table 1).† Overall, investors described 12% of investments as exceeding their financial performance expectations and three-quarters of investments as meeting their impact performance expectations (Figure 8). For 5% of investments, investors had not set impact targets.

* At the time of writing, the GIIN is currently developing the IRIS+ strategic goals and Core Metrics Sets for Sustainable Agriculture. For more information, visit [IRIS+](#).

† This reflects the 93 investments for which respondents provided annualized realized financial returns.

FIGURE 8: Investment performance relative to targets

Number of investments shown above each bar.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

TABLE 1: Realized, annualized financial returns

	n	MEAN	MEDIAN
Private debt	17	7%	6%
Private equity	20	18%	8%
Real assets	25	15%	15%
Other	31	6%	8%

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: ROOT CAPITAL

Approach to measuring and managing performance

Root Capital is a not-for-profit asset manager investing in agricultural businesses that support rural prosperity in Asia, Latin America, and sub-Saharan Africa.

Root Capital leverages impact data to inform its own operations and those of its borrowers. At the level of an investment portfolio, Root Capital captures data using IRIS+ metrics, among others, to measure and manage the impacts of its loans along the following dimensions: loan additionality,^{*} scale, environmental vulnerability & performance, social vulnerability & performance, and financial performance. These also align to the Impact Management Project's Five Dimensions of Impact. Root Capital takes an integrated approach to understanding impact and financial performance, using its impact data to calculate an "Expected Impact Rating," a numerical score to gauge the expected impact of each investment. The expected impact of each proposed loan can then be compared with its expected financial return to analyze and optimize portfolio performance and drive investment decision-making.[†]

Through its client-centric evaluation approach, Root Capital also recognizes the value of impact data for farmers and enterprises, sharing generated impact information with its investees to inform their operations. This approach has enabled borrowers to improve their products and services to address stakeholder needs, for example by providing farmers with technical assistance or agricultural inputs. As part of its IMM practice, each year Root Capital engages directly with farmers associated with a subset of investees to collect impact data and reflect stakeholder perspectives in its approach. This involves mixed-method impact studies, which include interviews and focus groups with farmers and agricultural employees on topics such as income and livelihood strategies, gender dynamics, or climate-resilient agriculture. In 2019, Root Capital conducted an incremental income meta-analysis, surveying more than 5,000 farmers across 28 investees to explore the additional income earned by farmers and employees. This approach to evaluation has enabled Root Capital to explore long-term outcomes around rural livelihoods, food security, and environmental conservation associated with their investments in agriculture.



^{*} Root Capital defines "loan additionality" as the value-add of its loan to the borrower, based on whether the borrower has access to a similar loan on similar terms from other sources. Root Capital uses loan additionality to capture "investor contribution" – the contribution that an investor makes to enable investees to achieve impact – under the Impact Management Project's "Five Dimensions of Impact" framework.

[†] For more information on Root Capital's approach to integrating impact and financial performance, please see [here](#).

Introduction:

Impact performance results

This evidence-based, outcomes-driven approach seeks to assess impact in a standardized and comparable way while recognizing that context plays a critical role in shaping the interpretation of an investment's impact results, including outputs and outcomes.

The impact results associated with investments in this sample are presented through a series of four impact pathways based on annualized investment data and built around key outcomes in agriculture. This evidence-based, outcomes-driven approach seeks to assess impact in a standardized and comparable way while recognizing that context plays a critical role in shaping the interpretation of an investment's impact results, including outputs and outcomes.

An impact pathway is a sequence that connects outputs-level data to short-term outcome indicators, based on relevant sets of evidence and rigorous assumptions, and informed by: (i) IRIS+ Core Metrics Sets, (ii) evidence-backed hypotheses and Theories of Change in sustainable and smallholder agriculture, and (iii) the volume and rigor of impact data shared by sample participants.

Each pathway analyzes various impact data that together indicate reasonable likelihood of an impact outcome. While some impact pathways included in this report use direct outcomes-level data (for example, increased client income), others rely on sets of outputs as proxies (for example, number of clients with training provided). Impact pathways are inherently linked. Assumptions and caveats are presented alongside each to enhance transparency and interpretation.

Throughout the section, outcome indicator(s) for each impact pathway are contextualized within and analyzed across IMP and IRIS+ dimensions to understand HOW MUCH impact is created, further contextualizing WHAT impact is sought by those annualized investments that achieved the outcome, WHO is impacted by the outcome achieved, HOW the change was created, and the impact RISKS associated with investments creating impact. The final dimension of impact, CONTRIBUTION, is explored in the 'Lessons learned' section on page 58.

Data are also presented across various investment- and investee-level segments, for example by investment instrument, region of investee operations, or previous alternatives available in the market in which the investee operates. To reflect on progress in addressing various complex problems, the impact associated with investments in this sample is further assessed relative to the scale of the problem at hand in the countries in which investees operate.

List of metrics

Availability of data varied across metrics, as shown in Table 2. Since not all metrics are relevant for every investor's impact strategy, all questions were made optional.

TABLE 2: Number of annualized investment data points collected for each metric

n = 661 annualized investments made by 38 investors.

	METRIC	IRIS METRIC CITATION IRIS, 2020	NUMBER OF ANNUALIZED INVESTMENTS
WHO	Client Individuals: Total	Client Individuals: Total (PI4060). v5.1.	568
	Client Individuals: Smallholder	Client Individuals: Smallholder (PI6372). v5.1.	332
	Client Individuals: Female	Client Individuals: Female (PI8330). v5.1.	476
	Client Individuals: Low-Income*	Client Individuals: Low Income (PI7098). v5.1.	513
	Client Organizations: Total	Client Organizations: Total (PI9652). v5.1.	51
	Client Individuals/Organizations: Rural	Client Individuals: Rural (PI1190). v5.1.	535
HOW	Total Assets (USD)	Total Assets (FP5293). v5.1.	103
	Stakeholder Engagement	Stakeholder Engagement (OI7914). v5.1.	150
	Product/Service Detailed Type	Product/Service Detailed Type (PD1516). v5.1.	646
	Individuals Trained: Total	Individuals Trained: Total (PI2998). v5.1.	135
	Crop /Livestock/Fish Type	Crop Type (PD1620). v5.1. Livestock/Fish Type (PD4686). v5.1.	588
	Operational/Product/Service Certifications	Operational Certifications (OI1120). v5.1. Product/Service Certifications (PD2756). v5.1.	348

Table continued on following page →

* Respondents were asked to report the number of individuals living below the national poverty lines in the countries in which investees operate; in several cases, respondents did not have this data and reported the number presumed to be low-income based on the [World Bank poverty gap](#) or those otherwise presumed to be low-income.

TABLE 2, CONTINUED

	METRIC	IRIS METRIC CITATION IRIS, 2020	NUMBER OF ANNUALIZED INVESTMENTS
HOW MUCH: SMALLHOLDER AGRICULTURE	Average Supplier Agricultural Yield: Smallholder (kg/ha)	Average Supplier Agricultural Yield: Smallholder (PI1405). v5.1.	20
	Average Change in Agricultural Yield: Smallholder (kg/ha)	---	13
	Number of Individuals with Increased Agricultural Yields	---	23
	Average Annual Income of Stakeholders (USD)	---	53
	Client Income (number of individuals)	Client Income (PI9409). v5.1.	42
HOW MUCH: ENVIRONMENTALLY SUSTAINABLE AGRICULTURE	Land Directly or Indirectly Controlled: Cultivated (hectares)	Land Directly Controlled: Cultivated (OI1674). v5.1. Land Indirectly Controlled: Cultivated (PI7403). v5.1.	234
	Land Directly or Indirectly Controlled: Sustainably Managed (hectares)	Land Directly Controlled: Sustainably Managed (OI6912). v5.1. Land Indirectly Controlled: Sustainably Managed (PI6796). v5.1.	37
	Greenhouse Gas Emissions: Sequestered (tons)*	Greenhouse Gas Emissions Sequestered (PI9878). v5.1.	17
	Water Consumed: Total (litres)*	Water Consumed: Total (OI1697). v5.1.	6
	Net Waste (metric tons)*	Waste Produced: Total (OI6709). v5.1. Waste Disposed: Total (OI6192). v5.1.	1
	Soil Protection Practices (Y/N)	---	38
HOW MUCH: STRENGTHENED VALUE CHAINS	Producer Price Premium (%)	Producer Price Premium (PI1568). v5.1.	104
	Jobs in Directly Support/ Financed Enterprises†	Jobs in Directly Supported/Financed Enterprises (PI4874). v5.1.	178
	Cost Transparency (Y/N)	Cost Transparency (PI6941). v5.1.	64

Note: Other metrics tracked by investors in this sample include : Number of full-time female employees; additional net income per farmer (USD); average number of crops grown per active farmer; GHG avoided per year (tons); number of seasonal staff; SME/Entrepreneurs assisted; savings per farmer (USD); repayment rate; soil carbon levels; electricity and fuel efficiency; volume of nutritious products; area of degraded land recovered (ha); number of agreements between farmers and cooperatives.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

* These metrics have not been included in the impact pathways analyses due to small sample size.

† In some cases, respondents submitted data on jobs supported at both directly and indirectly financed organizations or enterprises.

Impact overview

Economic growth in the agricultural sector can significantly reduce poverty, as nearly two-thirds of poor working adults make their livings through agriculture, reflecting the importance of strengthening value chains in addressing global poverty.²⁰ Impact investors pursue the integration of agricultural value chains as an impact strategy, often alongside environmentally sustainable and smallholder agriculture. Strengthened value chains can enable smallholder farmers to access markets and provide opportunities to improve their farm profitability, facilitating inclusive growth in the sector and bolstering agricultural markets.

Investees in this sample served a wide-ranging number and variety of stakeholders, from large ag-tech companies to farmer cooperatives, each providing agricultural products and services to a diverse set of clients (Figure 9). A single investee across 556 annualized investments served an average of 14,370 clients (843 at the median) over a one-year period.^{*} The most common agricultural products and services investees delivered included agricultural inputs (30% of annualized investments), out-grower schemes and offtake agreements (28%), and processing and manufacturing services (27%).

Over half of annualized investments (54%) explicitly target strengthened value chains, with investments into agricultural products, services, and operational models across various stages of the value chain.^{†, 21} In total, just 4% of annualized investments were made into vertically integrated investees operating across multiple stages or the entire value chain.

A plurality of investees in the sample (46%) operate in production, followed by processing (21%) and input supply (11%). At the input supply stage, nine in ten investees provide agricultural inputs, and 39% provide agricultural finance, with an average of 99,081 individuals served for each investment. In production, an average of 61,185 smallholder farmers were provided agricultural products and services, most often out-grower schemes and agricultural inputs. By contrast, investees focused on processing provided processing and manufacturing services, along with sales, marketing, and out-grower schemes, to an average of 4,016 individuals. Most investees offering ancillary services provided agricultural technology (67% of annualized investments). Those operating in multiple stages or across the entire value chain most often provide out-grower schemes, processing and manufacturing services, and sales and marketing services.

Investees in this sample served a wide-ranging number and variety of stakeholders, from large ag-tech companies to farmer cooperatives, each providing agricultural products and services to a diverse set of clients.

^{*} Average number of client individuals excludes 10 outlier annualized investments in which investees served more than one million individuals on average. Analyses on products/services excludes one outlier organization.

[†] The value chain is defined as the range of steps and related actors needed to move an agricultural product from farm to the final customer.

The progress toward impact in agriculture demonstrated in this report highlights the potential for impact investments to help build strong agricultural markets and drive sustainable, impactful growth. Together, the four impact pathways in the next section reflect four interrelated areas in the sector:

- Increased environmentally sustainable farming practices can bolster agricultural yields.
- Increased agricultural yields and productivity may help smallholder farmers become more profitable.
- Increased rural incomes and profitability can support rural livelihoods.
- Increased rural employment strengthens agricultural markets and ecosystems.

FIGURE 9: Impact across the agricultural value chain over a one-year period

n = 248 – 556 annualized investments; respondents could select multiple products/services.



Note: Data on products and services provided excludes one outlier investor organization; all averages exclude 10 outliers serving more than one million clients. This figure does not reflect investments made into ancillary services or across the value chain.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: THE COMMON FUND FOR COMMODITIES, COOPAC, AND OLIVADO

Integrating value chains in the face of impact risk

The Common Fund for Commodities (CFC), established within the framework of the United Nations, is a Netherlands-based intergovernmental financial institution investing in SMEs in emerging markets along the entire agricultural commodity value chain.

In 2017, the CFC invested in COOPAC, a growth-stage company that works with coffee farmers to produce and export high-quality coffee. COOPAC sources coffee beans from smallholder farmers in Rwanda and the Democratic Republic of the Congo (DRC), using outgrower schemes to integrate the production and processing stages of the value chain, provide stable incomes for farmers, and unlock access to markets in Europe.^{*} Financing from the CFC allowed COOPAC to increase its wet coffee-washing capacity, a critical technique in producing quality coffee, and to upgrade its value chain[†] in order to add value through processing and certification. COOPAC is an organic, Fairtrade- and Rainforest Alliance-certified exporter in Rwanda; this competitive advantage enables COOPAC to earn price premiums for its coffee farmers. In 2018, 5,577 farmers generated increased income, averaging net additional income of USD 155 per farmer annually, worth 20% of Rwanda's GDP per capita.

While the CFC's original investment sought to finance coffee-washing stations and provide farmer trainings in the DRC, this investment faced significant impact risk, including external and execution risk, as a result of the DRC's Ebola outbreak and market conditions. To navigate this complex set of risks and

optimize its impact in both countries, the CFC collaborated with COOPAC to identify each risk, conduct a market analysis, and ultimately transition its investment to neighboring Rwanda. Part of the investment was lent onwards to the DRC, transferring the risk of activities in the DRC to the Rwandan entity. This enabled COOPAC to meet its financing needs in a more stable environment while ensuring continued coffee sourcing, production, processing, and export in both countries.

In light of the global COVID-19 pandemic, the CFC has also faced impact risk in its most recent 2019 investment into Olivado, a Kenya-based company producing and exporting organic and Fairtrade-certified avocado oil. Olivado sources directly from 2,200 smallholder farmers in Kenya, operating with an integrated farmer-to-market model.[‡] This approach eliminates the 'middle actors' from the avocado value chain; Olivado guarantees purchase of at least 95% of farmers' annual avocado crop. However, COVID-19 disrupted the supply chain, delaying payments to Olivado from end-buyers in Europe. This directly affected smallholder farmers' ability to harvest the avocados. Recognizing the bottleneck this external risk would cause, the CFC provided an additional investment into Olivado that allowed farmers to receive payments and secure avocado production through the end of the harvest season in August. Since the CFC's additional loan, European end-buyers have repaid and smallholder farmers have continued to receive agronomic training and farm-monitoring tools. The CFC continues to engage with Olivado to assess current market conditions.



^{*} For more information on COOPAC's approach, see [here](#).

[†] "Upgrading a value chain" refers to any changes in processes along a supply chain to improve productivity, efficiencies, and competitiveness of firms or actors therein.

[‡] For more information on Olivado's farmer-to-market model, see [here](#).

Increased environmentally sustainable farming practices

FEATURED IRIS® METRICS

Total Cultivated Land (OI1674 and PI7403)

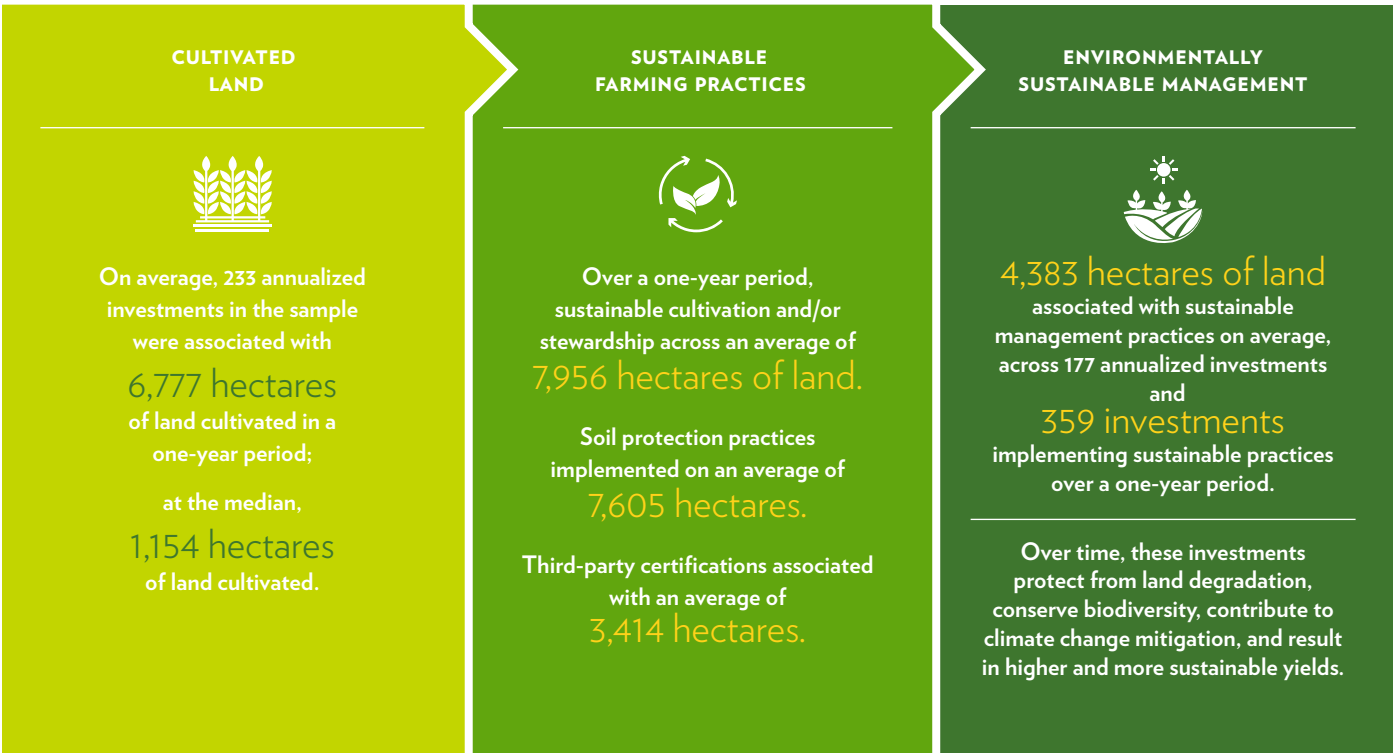
Area of land directly or indirectly controlled by the organization and under cultivation.

Total Land Sustainably Managed (OI6912 and PI6796)

Area of land directly or indirectly controlled by the organization and under sustainable cultivation or sustainable stewardship.

Sustainable cultivation and stewardship ensure efficient use of non-renewable resources, with practices such as crop rotations, integrated pest management techniques, and reduction of water contamination. Soil protection practices to monitor soil health and third-party certifications can demonstrate environmentally sustainable management. Evidence shows that sustainable land practices contribute to climate change mitigation, protect biodiversity, facilitate nutritious food production, and improve yields. For an example of impact associated with regenerative agriculture, see the Agriculture Capital spotlight on page 32.^{*,22}

* For more on sustainable cultivation and stewardship, see IRIS metric on sustainably managed land [here](#). Maintaining healthy soil implies sustainable land management as detailed [here](#).



Note: All data presented in this impact pathway exclude one land outlier.
Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

KEY FINDINGS

In this sample, sustainable land management and production practices have been implemented through 360 annualized investments. **The average impact investment in agriculture is associated with sustainable practices on 4,383 hectares of land and the median 1,126 hectares over a one-year period, excluding one outlier.*** More than one in two investments in the sample (53%) have a third-party certification and implement soil protection practices across an average of 3,157 hectares of land.

Across the 27 countries in which investees in the sample operate, each impact investment in agriculture is associated with sustainable practices on an average of 0.04% of agricultural land.^{†, 23} Each investment with a third-party certification for their farming practices, land management, or crop production processes represents an average of 0.04% of agricultural land.

ASSUMPTIONS AND CAVEATS

Using ten IRIS metrics, this approach assesses three components of environmentally sustainable management: (1) sustainable cultivation and stewardship, (2) soil protection, and (3) third-party farming, land management, and crop certifications. Annualized investments associated with these sustainable management practices are presented in the analyses. Additionally, land under sustainable cultivation or environmental stewardship, as reported based on the IRIS sustainably managed land metric, is presented alongside cultivated land under management associated with soil protection practices, certifications, or both.[‡] Since third-party certifications may be costly and time-consuming to obtain, either soil protection or certification, or both, was considered sufficient indication of environmentally sustainable practices. While some respondents indicated receiving certifications, the amount of land to which certifications apply was not specified; in cases where the amount of land reported under sustainable cultivation and environmental stewardship was provided, this figure was included instead. To gauge progress in sustainably managed land, the size of land under sustainable practices was compared to the total size of agricultural land in countries in which respective investees with sustainable practices are operational.[§]

* This analysis excludes one outlier investment with an outsized land investment. Including the outlier, impact investments in agriculture have facilitated sustainable management practices on an average of 6,053 hectares of land, and a median of 1,126 hectares.

† This analysis excludes one outlier investment with an outsized land investment. Including the outlier, impact investments in agriculture have facilitated sustainable management practices on an average of 6,053 hectares of land, and a median of 1,126 hectares.

‡ In cases where respondents indicated both total area of cultivated land and area of land sustainably managed, the proportion of land sustainably managed was included and not total area of land managed.

§ Given the diverse nature of this sample, which covers a variety of both permanent and temporary crops, along with livestock, agricultural land was used in calculating impact relative to the scale of the problem, ensuring a conservative estimation that is consistent across investments in the dataset.

Across the 27 countries in which investees in the sample operate, the average impact investment in agriculture is associated with sustainable practices on 0.04% of agricultural land.

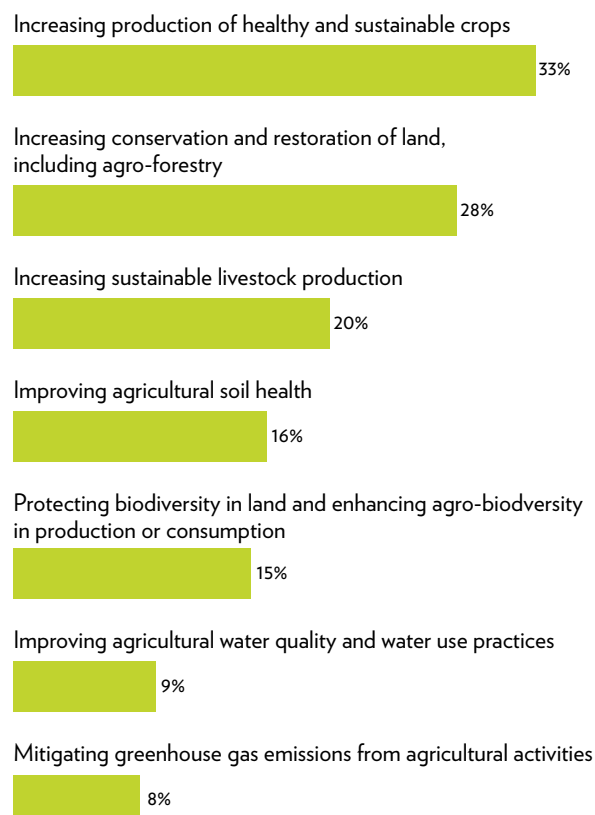
WHAT IMPACT IS TARGETED

These investments primarily create impact by targeting not only environmentally sustainable agriculture (95% of investments) but also smallholder agriculture (91%) and strengthened value chains (86%), illustrating impact investors' holistic approach to agriculture.

A majority of investments targeting environmentally sustainable impact goals are focused on land and production, with one-third targeting increased production of healthy and sustainable crops and 28% targeting increasing conservation and restoration of land (Figure 10). Naturally, the investees associated with these investments primarily contribute to the production stage of the agriculture value chain. Over half of investments (54%) targeting increased production of healthy and sustainable crops and 79% of those increasing conservation and restoration of land focus activities on the production stage. Investments increasing sustainable farming practices most commonly target SDG 8 ('Decent work and economic growth'; 81%), followed by SDG 2 ('Zero hunger'; 68%; Figure 11)

FIGURE 10: Strategic impact goals most commonly targeted to increase sustainable farming practices

n = 118 annualized investments; respondents could select multiple strategic goals.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 11: UN SDGs targeted by investments increasing sustainable farming practices

n = 68 annualized investments; respondents could select multiple SDGs.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

WHO IS IMPACTED

Impact investments in this sample that achieve sustainable land outcomes target both the planet and its people. Excluding one outlier, nearly three-quarters of investments target the planet, followed by 69% targeting individuals, and one-third organizations or enterprises (Figure 12). Most commonly, investments target subsistence and/or smallholder farmers (84%). Several respondents indicated that sustainable land and biodiversity practices are implemented through projects in collaboration with smallholder or minority communities to grow crops sustainably and protect the land. This is aligned with investors’ impact targets, which integrate both social and environmental objectives.

Environmentally sustainable practices are implemented globally, with more than a quarter of the total sample’s sustainably managed land in Ghana (28%), followed by Peru (24%), Honduras (11%), Democratic Republic of the Congo (5%), and Rwanda (5%). On average, 8,063 hectares of land are managed through sustainable practices in Latin America & the Caribbean as compared to an average 2,872 hectares in Sub-Saharan Africa. Just 1% of sustainably managed land included in this sample is in the U.S. & Canada.

HOW IS CHANGE HAPPENING

Soil protection and/or certification practices are implemented across 53% of investments in this sample, on an average of 4,903 hectares of land. Third-party certifications associated with investments in this sample include Fairtrade, Rainforest Alliance, EcoCert, Global GAP, LEAF, and the USDA organic certification along with national or local certifications through agricultural associations, seed certifications, and water management certifications.

FEATURED IRIS® METRICS

Target Stakeholder Geography (PD6424)

Indicates the geography of stakeholders targeted by the organization, expressed by country, as of the end of the reporting year.

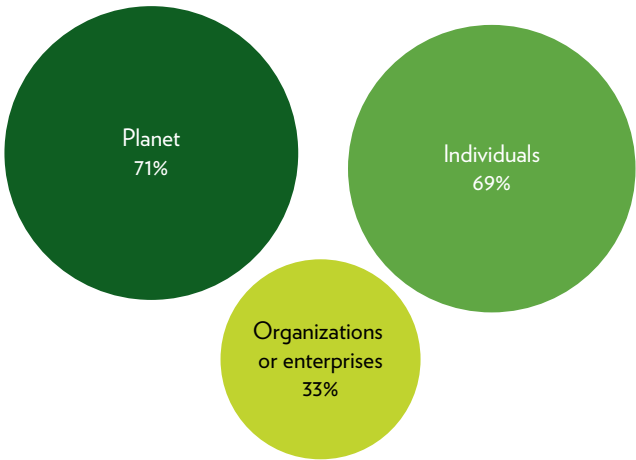
Target Stakeholders (OD7212)

Describes which entities the organization seeks to benefit via its products/services/operations as of the end of the reporting year.

FIGURE 12: Stakeholders targeted by investments increasing sustainable farming practices

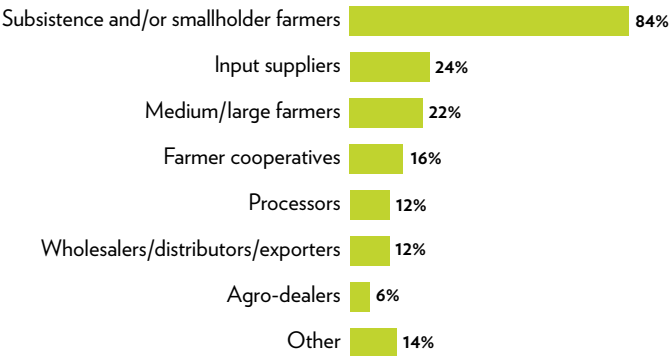
STAKEHOLDER GROUPS

n = 70 annualized investments, excluding one outlier. Respondents could select multiple stakeholder groups.



TYPES OF STAKEHOLDERS TARGETED

n = 50 annualized investments, excluding one outlier and excluding those investments that target solely the planet and not individuals or organizations. Respondents could select multiple stakeholder types.



Note: ‘Other’ stakeholder groups include retailers, infrastructure providers, ag-tech providers, and staff or employees that work at the directly supported or financed enterprise.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FEATURED IRIS® METRICS

Product/Service Detailed Type (PD1516)

Describes the detailed type of product or service provided by the organization.

Operational Certifications (OI1120)

Describes the third-party certifications held by the organization that are related to its business processes and practices and that are valid as of the end of the reporting year.

Product/Service Certifications (PD2756)

Describes third-party certifications for products/services sold by the organization that are valid as of the end of the reporting year.

These practices, including soil health testing and diversified organic farming, are shown to increase crop yield, supporting farmer livelihoods and land.²⁴

Half of the annualized investments implementing sustainable practices do so through the production stage of the value chain. Although a third of investments target increased production of sustainable and healthy crops, nearly four in ten investments created change through processing and manufacturing (37%), followed by providing agricultural inputs (34%) and outgrower schemes & offtake agreements (29%; Figure 13).

Interestingly, nearly a quarter (24%) of investments did not have any capacity-building or non-financial support provided for the investment. Each of these investments without additional support provided were in either growth or venture stage investees based in emerging markets. Another 24% of investments received capacity-building or non-financial support, which was funded by management fees and/or through profits from the investments themselves.

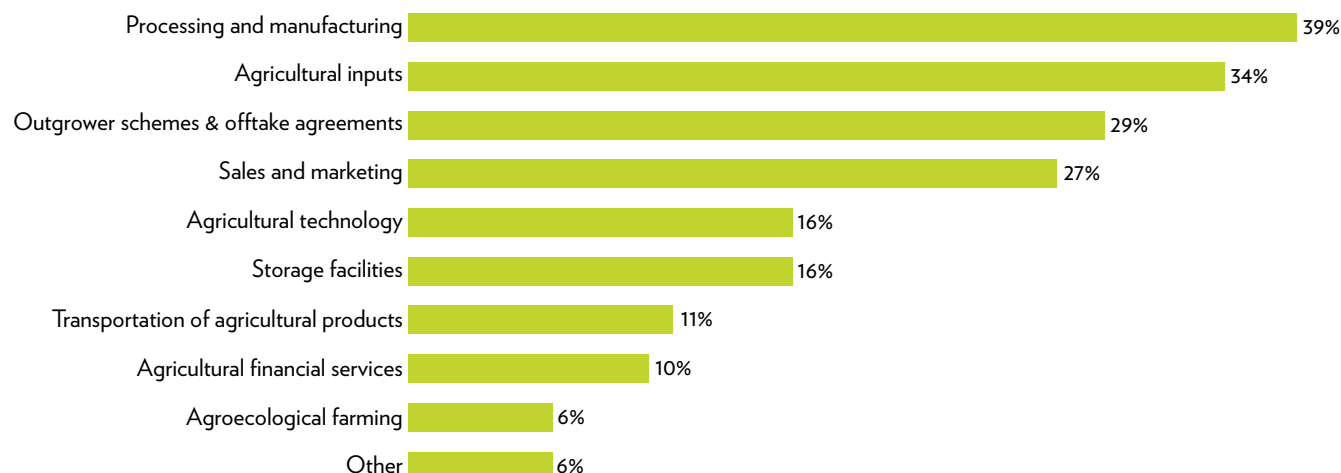
IMPACT RISKS PERCEIVED BY INVESTORS

Respondents managing land through environmentally sustainable farming practices most commonly perceived external risk (78%) associated with their investments, followed by execution risk (29%) and unexpected impact risk (10%).* Among those investors who reported on external risk, 63% target risk-adjusted market rate returns as compared to 15% who target below-market-rate returns. Respondents emphasized the role that external risk plays in agriculture investments, highlighting agricultural risk factors linked to production volume, processing, weather such as drought, and consumption patterns.

* See Appendix 3 for definitions of various impact risks.

FIGURE 13: Products and services provided by investees that implement sustainable practices

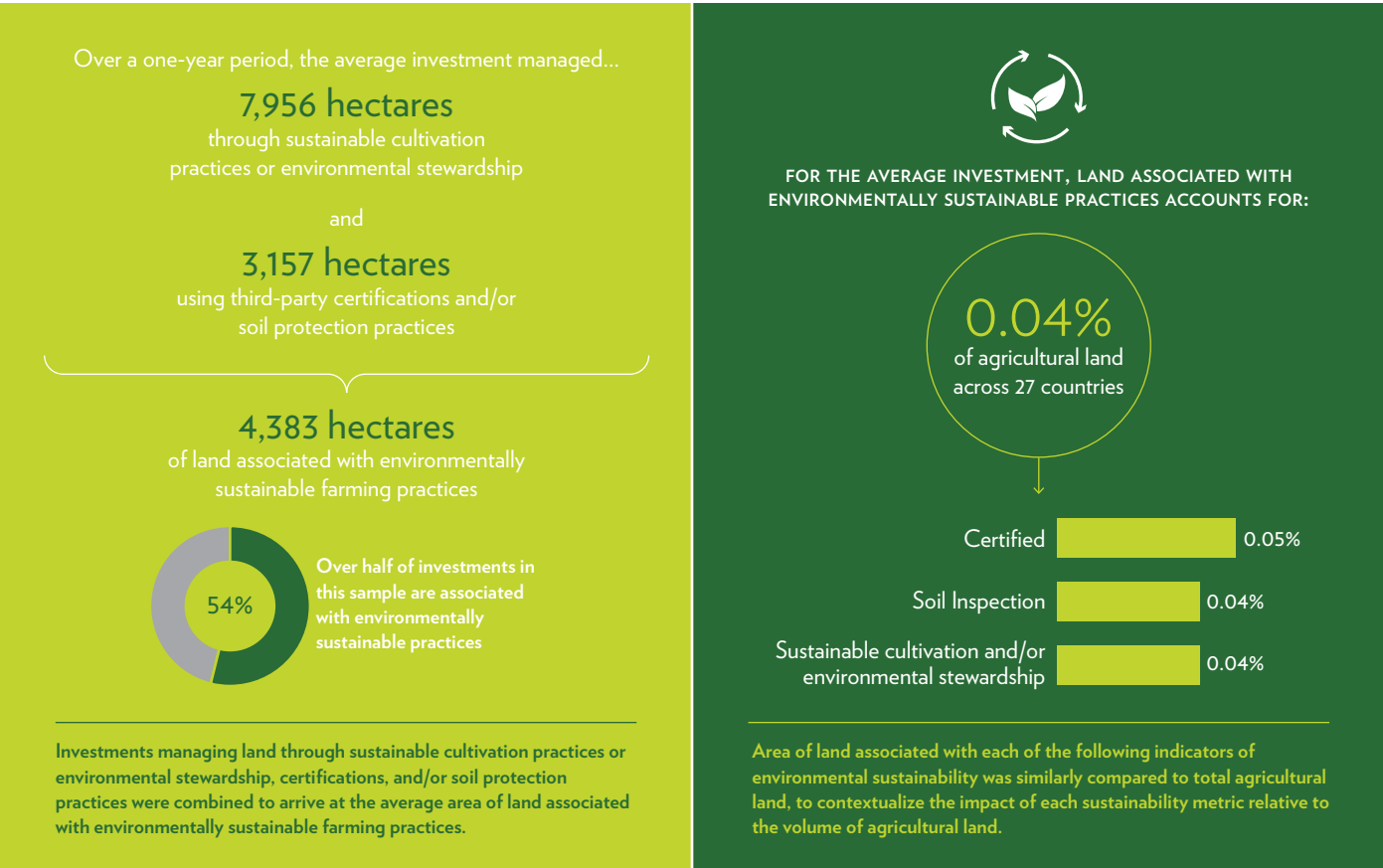
n = 70 annualized investments; excludes one outlier. Respondents could select multiple products and services.



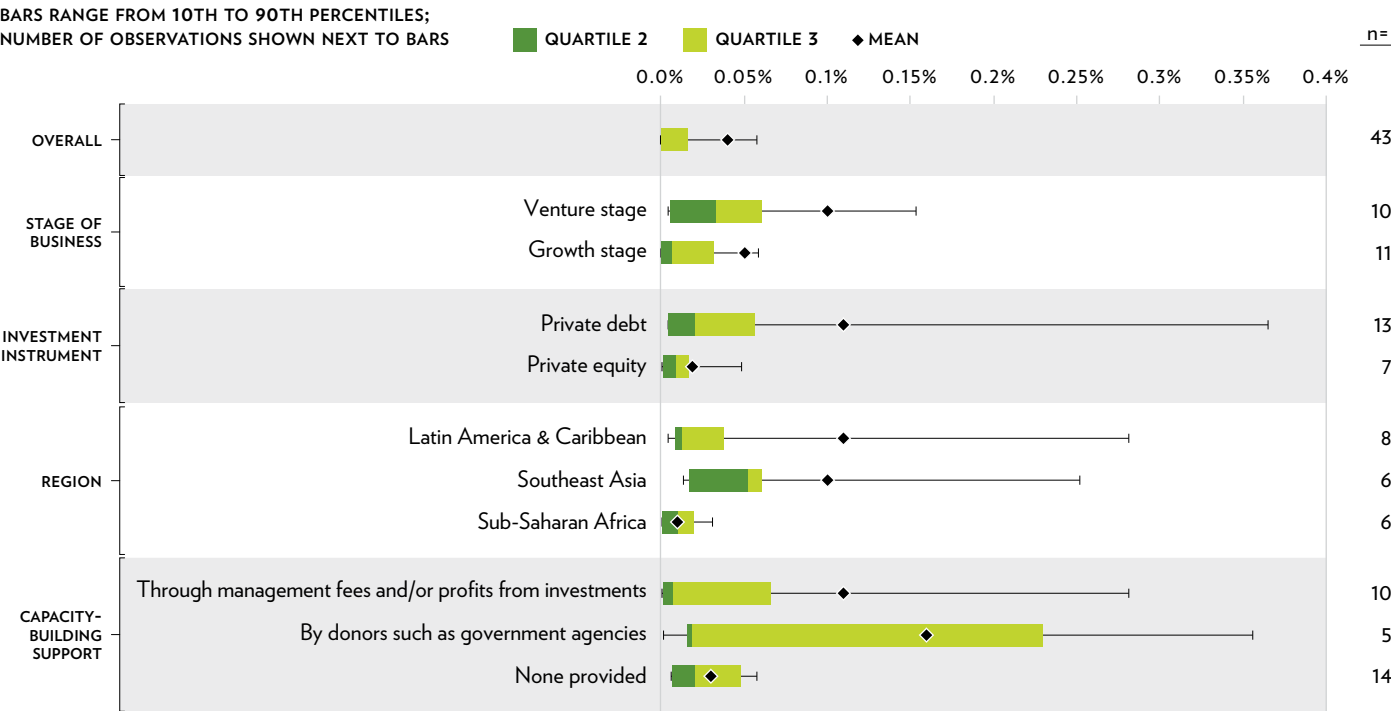
Note: 'Other' includes regenerative agriculture, sustainable poultry production, weather indexing services, introduction of high-value crops, and facilitating access to export markets.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Progress toward increasing environmentally sustainable farming practices



The average amount of land managed sustainably relative to the volume of agricultural land in an investee's countries of operations varies by contextual factors, including investee stage of businesses, investment instrument, region, and capacity-building support provided:



Note: Excludes one outlier investor.
Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: AGRICULTURE CAPITAL

Regenerative management in agriculture

Agriculture Capital (AC) is a U.S.-based real asset investor focused on investments in farmland and food-processing assets to scale regenerative farming and increase access to nutritious food.

As of 2019, Agriculture Capital (AC) has made 26 investments in the United States and Australia, operating its entire portfolio with the goal of driving value and mitigating risk in order to regenerate working landscapes, natural resources, and rural communities. Through regenerative management techniques, such as cover cropping,* AC has enriched soil health in its farmland portfolio by increasing soil organic matter, improving soil structure, and allowing soil to maintain more moisture, thereby lowering irrigation requirements. AC farms with cover crops can sequester three times more CO₂ equivalents (CO₂e) than those without cover crops.† AC's regenerative operations sequestered 13,288 tons of CO₂e across their portfolio in 2019. Additionally, AC's farm operations reduced total greenhouse gas emissions to 5,217 tons. The remaining emissions comprised primarily nitrous oxide emissions

from fertilizers, crop residue, and organic matter in soil, offset by 15,569 tons of CO₂e sequestered in soils alone.

Regenerative management has increased the value that AC receives from a healthy ecosystem in support of its operations.‡ By limiting tilling, expanding cover cropping, installing hedgerows and meadows, and maintaining significant on-farm natural areas, AC projects its U.S. blueberry farms will generate more than USD 3 million in ecosystem service value over the next 10 years. AC's soil-protection practices and regeneration of ecological systems has also facilitated the growth of more nutritious crops. This vertically integrated approach — from owning land and managing farms to running processing facilities and delivering to markets — has increased the production of affordable, organic produce. Large-scale regenerative farming has allowed AC not only to improve environmental outcomes but also to generate social benefits by helping change the nature of agricultural labor in the value chain and by improving access to nutrition from whole foods.



* Cover cropping is a technique that involves planting crops for soil coverage rather than harvest in order to reduce soil erosion, protect soil quality, and keep weeds in check.

† For more on Agriculture Capital's impact, see [here](#).

‡ "Ecological value" is defined as the level of benefits that the space, water, minerals, biota, and all other factors that make up natural ecosystems provide to support human and non-human native life forms." Learn more [here](#).

Improved smallholder farmers' agricultural yields

Increasing farmers' agricultural productivity can greatly reduce poverty. Smallholder farmers' actual yields are often well below potential, driven in part by lack of access to quality inputs, agricultural technique, post-harvest storage, and linkages to markets. Agricultural-specific risks, such as drought, pests, diseases, and climate change, also often leave smallholder farmers especially vulnerable to unpredictable yields. Still, use of fertilizer and improved seed alone can significantly increase crop yields.²⁵ Sustainable farming practices can also increase farmers' crop yields by nearly 80%.²⁶ Evidence demonstrates that increasing smallholder farmers' yields and productivity can enhance farm profitability, household income, and food security.*

* See the IRIS+ Evidence base [here](#). Accessed through the Evidence Map within the IRIS+ Strategic Goal, "Increasing access to and use of quality agricultural inputs" of the Smallholder Agriculture theme. For more on the long-term impact of agricultural yield for smallholder farmers, see the World Bank's "Understanding Poverty: Food and Agriculture" insights [here](#).

FEATURED IRIS+ METRICS

Product/Service Detailed Type (PD1516)

Describes the detailed type of product or service provided by the organization.

Individuals Trained: Total (PI2998)

Number of individuals who received training offered by the organization during the reporting year.

Client Individuals: Smallholder (PI6372)

Number of unique smallholder farmer individuals who were clients during the reporting year.

Average Supplier Agricultural Yield: Smallholder (PI1405)

Average agricultural yield per hectare of smallholder farmers who sold to the organization during the reporting year.

ACCESS TO AGRICULTURAL PRODUCTS AND SERVICES

On average, across 38 annualized investments, over a one-year period:



14,100

smallholder farmers accessed agricultural inputs



19,630

smallholder farmers accessed agricultural finance



8,102

smallholder farmers accessed services to transport agricultural products

INCREASED AGRICULTURAL TRAINING AND INFORMATION

An average of
3,249 individuals
benefited from both training and certification annually.



The average yield per farmer associated with each investment was
4,030 kg/ha, or



4,630 kg/ha
among those using environmentally sustainable farming practices.

IMPROVED SMALLHOLDER FARMERS' AGRICULTURAL YIELDS



An average of
11,531

smallholder farmers experienced increased yields annually across 22 annualized investments.

Increased yields and crop productivity can:

- improve farm profitability
- increase household income, and
- strengthen food security.

Note: This impact pathway excludes one outlier annualized investment.
Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Investees enabled increased yields and/or provided training for an average of 0.16% of those living below the national poverty line across 18 countries in which investees operate.

KEY FINDINGS

On average, across investments in this impact pathway, 14,100 smallholder farmers accessed agricultural inputs, 19,630 accessed agricultural finance, and 8,102 smallholder farmers obtained services to transport agricultural products annually. **An average of 11,531 smallholder farmers experienced increased yields across 22 annualized investments.** In a one-year period, the average yield per farmer associated with each investment was 4,030 kg/ha, or 4,630 kg/ha (nearly 15% higher) among those using environmentally sustainable farming practices. Additionally, training was provided for an average 47,608 individuals per investment (3,284 at the median) across 60 annualized investments. Investees enabled increased yields and/or provided training for an average of 0.16% of those living below the national poverty line across 18 countries in which investees operate. Nearly all annualized investments that increased yields (82%) were made into sub-Saharan Africa.

ASSUMPTIONS AND CAVEATS

This approach uses 12 IRIS metrics to assess improvements in agricultural productivity across 38 annualized investments for which data were made available on increased yields, agricultural training, and/or certifications.* Included in this analysis are smallholder farmers who both benefited from training and earned certifications alongside those reporting increased yields, reflecting investments that made progress toward increased agricultural productivity. These investments reflected production of dairy, livestock, fresh produce, staple crops, and cash crops; however, analysis in this impact pathway using average yield per stakeholder (kg/ha) does not include dairy or livestock to enable comparability. Additionally, there is widespread variance in yields by year, region, climate, and agricultural risks; given 20 data points across a dozen different crop types, meaningful comparative analysis based on yields is limited given insufficient longitudinal data. The average smallholder farmer in the sample manages 1.3 hectares of land (at the median, 0.4 hectares) primarily in rural areas; therefore smallholder farmers in the sample are considered low-income. To gauge the scale of impact for each investment, the average number of smallholder farmers experiencing increased yields and benefitting from training was compared to the number of individuals living below the national poverty lines in each investee's respective country of operations.

* Analyses in this section exclude one outlier annualized investment. While other elements, such as quality of agricultural inputs, land, labor, and risk factors, all contribute to agricultural productivity, analyses here are based on available data associated with the impact investments included in this sample.

WHAT IMPACT IS TARGETED

To increase agricultural yields and productivity, more than three-quarters of annualized investments seek to increase access to agricultural training and information (77%), and just over two-thirds target increased farm profitability (67%; Figure 14).^{*} By contrast, 18% pursue increased food security through smallholder farms and only 8% seek to improve rural economies through financial inclusion. SDG 1 ('No Poverty') is by far the most commonly targeted SDG (79% of annualized investments; Figure 15).

WHO IS TARGETED

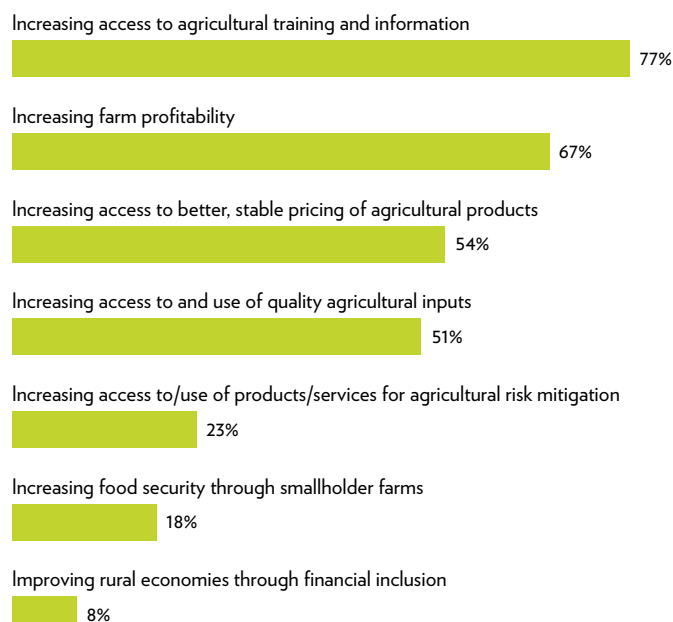
To increase agricultural yields and productivity, impact investors primarily target individuals (92% of annualized investments), with 24% targeting organizations or enterprises and 26% targeting the planet. Investees delivered agricultural products and services to a median of 3,290 women and 9,141 individuals living below the national poverty lines in their respective countries.[†] An average of 11,531 smallholder farmers experienced increased yields for each annualized investment.

* These Strategic Goals are aligned with common goals under the Smallholder Agriculture theme of IRIS+.

† While data were collected on the number of women served and the number of individuals living below their respective national poverty lines, data were not collected on the overlap between these segments.

FIGURE 14: IRIS+ Strategic Goals targeted by investments associated with increased farmer productivity

n = 38 annualized investments; respondents could select multiple Strategic Goals. Excludes one outlier.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FEATURED IRIS+ METRICS

Client Individuals: Low Income (PI7098)

Number of unique low-income individuals who were clients of the organization during the reporting year.

Client Individuals: Female (PI8330)

Number of unique women who were clients of the organization during the reporting year.

Target Stakeholder Geography (PD6424)

Indicates the geography of stakeholders targeted by the organization, expressed by country, as of the end of the reporting year.

Target Stakeholders (OD7212)

Describes which entities the organization seeks to benefit via its products/services/operations as of the end of the reporting year.

FIGURE 15: UN SDGs targeted by investments enabling increased agricultural productivity

n = 38 annualized investments; respondents could select multiple SDGs.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FEATURED IRIS® METRICS

Operational Certifications (OI1120)

Describes the third-party certifications held by the organization that are related to its business processes and practices and that are valid as of the end of the reporting year.

Product/Service Certifications (PD2756)

Describes third-party certifications for products/services sold by the organization that are valid as of the end of the reporting year.

Crop Type (PD1620)

Type of crop(s) produced by the organization during the reporting year.

Unsurprisingly, impact investors associated with increased agricultural yields most commonly target subsistence and/or smallholder farmers (Figure 16; 79%).

Most annualized investments that increased productivity were made into sub-Saharan Africa (82%), a region which accounted for a much smaller share (43%) of all investments in the total sample. The top countries where farmers increased their yields included Kenya (28% of annualized investments), Angola (13%), Rwanda (10%), and South Africa (10%).

HOW IS CHANGE HAPPENING

Smallholder farmers in this sample reside and operate primarily in rural areas. For nearly one-third of investments associated with increased farmer yields, the investee was the sole provider of their agricultural product or service in the market. Investments associated with increasing productivity tend to be concentrated at the earlier stages of the agricultural value chain, namely processing (34% of annualized investments), input supply (31%), and production (29%; Figure 17). Interestingly, however, investees in the production phase reported the greatest proportion of farmers increasing yields, at 91%, compared to just 45% of farmers through investees focused on processing.

FIGURE 16: Stakeholders targeted by annualized investments associated with increased agricultural productivity

n = 38 annualized investments; respondents could select multiple stakeholder groups. Excludes one outlier.

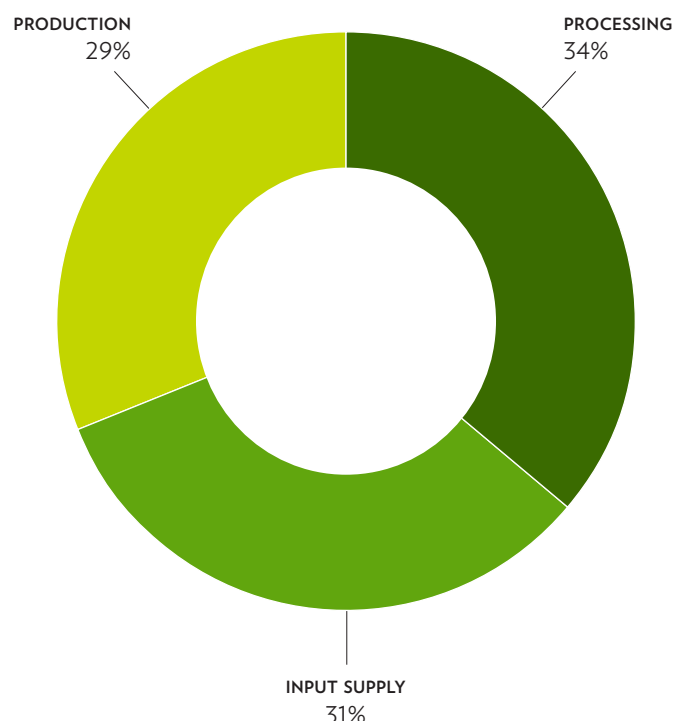


Note: 'Other' includes infrastructure providers, ag-tech providers, agro-dealers, and farmer cooperatives.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 17: Investee stage of the agricultural value chain

n = 33 annualized investments; excludes one outlier.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Farmers can increase their productivity through a variety of agricultural products and services. In this sample, increased productivity was most commonly associated with providing agricultural inputs (55% of annualized investments), followed by processing and manufacturing services (47%) and outgrower schemes and offtake agreements (37%). Only 29% of annualized investments generated increased farmer yields through agricultural financial services. In fact, while an investee provided financial services to an average 19,630 clients, an average of 14,831 farmers experienced increased yields per annualized investment (Figure 18). Meanwhile, investees provided agricultural inputs to an average of 14,100 farmers, with 12,547 of them experiencing increased yields, perhaps highlighting the importance of quality inputs to increasing productivity. Across the total sample, 83% of investees disclosed all pricing and cost information for their products and services to their clients, demonstrating cost transparency and client protection.

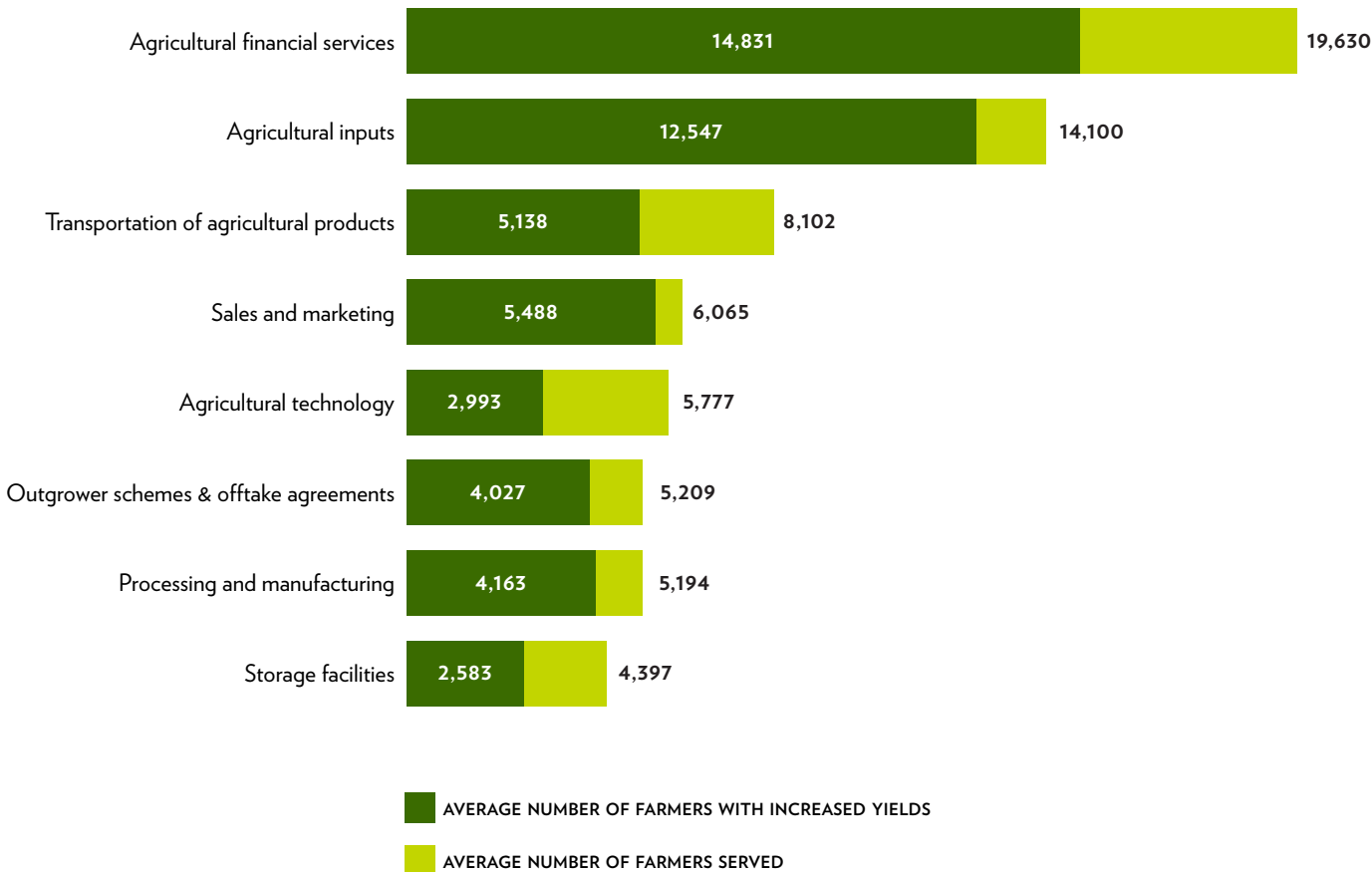
FEATURED IRIS® METRICS

Cost Transparency (PI6941)

Indicates whether the organization fully discloses all pricing and cost information for its products and services to clients.

FIGURE 18: Average number of farmers served and average number with increased productivity, by product/service

n = 38 annualized investments; respondents could select multiple products and services.



Note: Excludes agroecological farming and 'other' products/services, given the small sample sizes.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

The average yield per stakeholder varied significantly by agricultural product or service provided by the investee and the crop produced and harvested by stakeholders (Table 3). The average yield for farmers accessing out-grower schemes & offtake agreements was 4,542 kg/ha compared to just 1,528 kg/ha for those accessing agricultural financial services. As expected, a number of external factors drive this variance, such as crop type and maturity, seasonality, weather patterns, climate risk, and region. In fact, year-on-year change in yield reflect corresponding volatility, with yields increasing by more than 200 kg/ha per stakeholder in some cases and decreasing by 200 kg/ha in others across 13 annualized investments with available data.

Access to information on agronomic methods through training can lead to improved agricultural productivity. Training was provided for an average of 47,608 individuals per investee (3,284 at the median) across 60 annualized investments (Table 4). This included trainings on third-party certified production, organic farming, farming techniques, proper use of inputs, conservation practices, and storage of harvest. Across 18 investments for which data on both training and yields were reported, 69% of all individuals trained also experienced increased yields. Additionally, an average 3,877 farmers engage in farming or land management certified by FairTrade, EcoCert, Farm to Fork Standard, or Rainforest Alliance, among others.

IMPACT RISKS PERCEIVED BY INVESTORS

Impact investors most commonly perceived external risk associated with investments increasing yield (84% of annualized investments), perhaps unsurprising given the nature of agricultural risks associated with productivity gains.* This was followed by execution risk (52%), and evidence risk (28%). Several respondents cited concerns regarding climate change and drought, which can affect agricultural productivity, as well as risk associated with farmer up take of agricultural products, such as seed and fertilizer. Respondents also highlighted risks associated with agricultural production, storage, and processing.

* See Appendix 3 for definitions of various impact risks.

TABLE 3: Average yield per stakeholder across annualized investments in sub-Saharan Africa and Latin America

STAGE OF VALUE CHAIN	n	AVERAGE YIELD PER STAKEHOLDER (KG/HA)	MOST COMMONLY HARVESTED CROPS
Input supply and production	19	3,196	Peanuts, maize, sorghum, rice, cereals, cocoa, okra, coffee, soy
Processing and distribution	17	4,828	Coffee, sugar cane, maize, moringa, sorghum, potatoes

Note: Annualized investments can provide multiple products/services included in the value chain stages. This table only includes investments made into sub-Saharan Africa and Latin America, given the focus of the sample. The table also excludes three outlier annualized investments.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

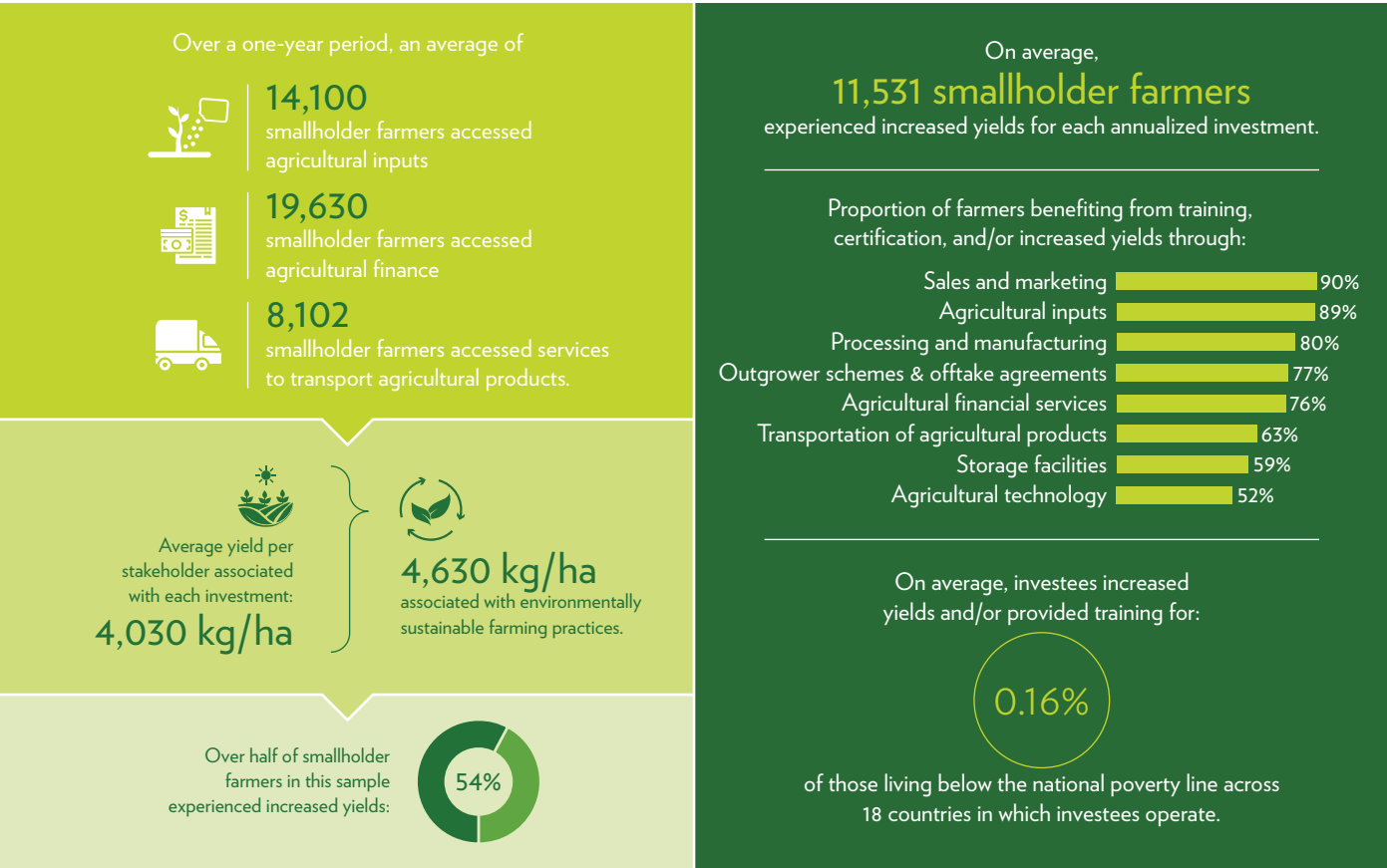
TABLE 4: Farmers trained and associated with certifications

	n	AVERAGE NUMBER OF FARMERS	MEDIAN NUMBER OF FARMERS
Farmers trained	60	47,608	3,284
Farmers associated with certifications	165	3,877	2,124

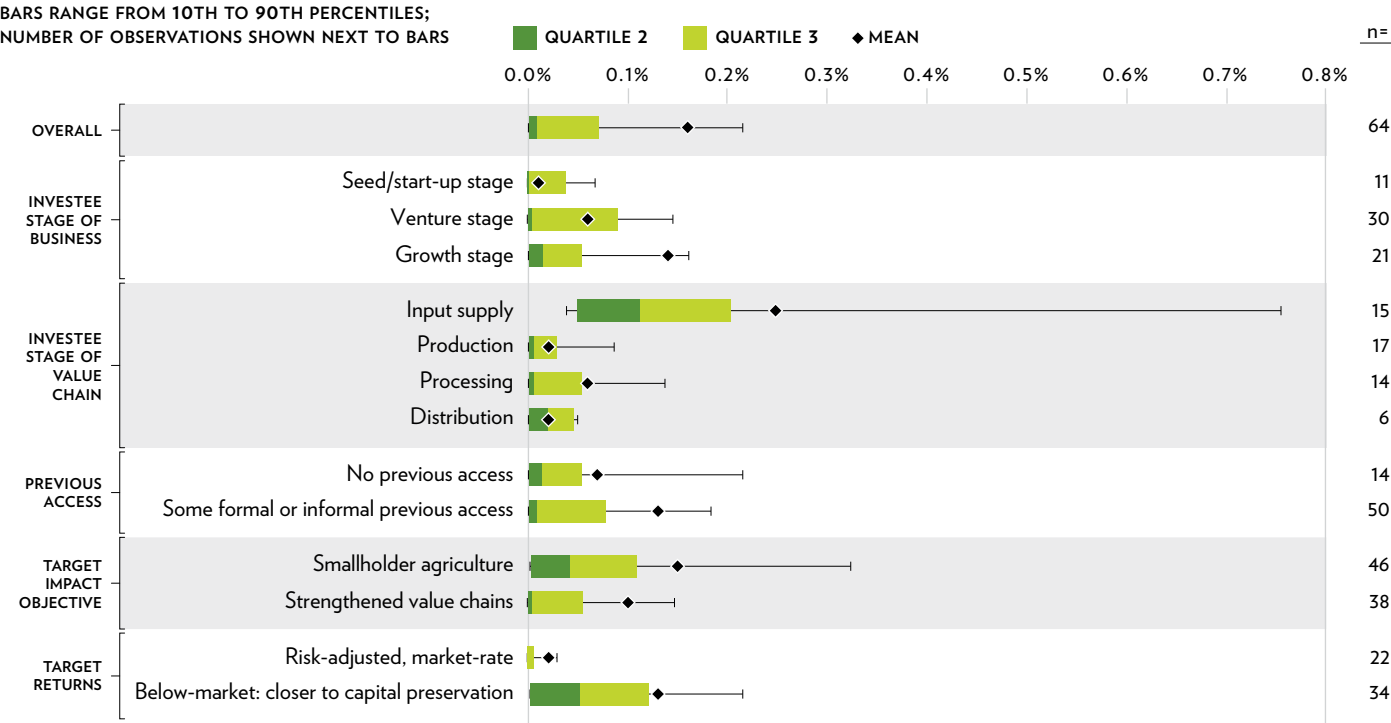
Note: Excludes one outlier annualized investment. Farmers both received training and earned certification across 17 annualized investments.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Progress toward improving smallholder farmers' agricultural yields



The number of individuals experiencing increased yields and/or agricultural training was compared to the number of individuals living below the national poverty line in each country in which investees operate:



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: ANKUR CAPITAL, CHIRATAE VENTURES, AND CROPLN

Improving agricultural productivity through ag-tech

Ankur Capital and Chiratae Ventures are both India-based for-profit asset managers. Ankur Capital focuses on investments in early-stage ventures in ag-tech, food, health, and education. Chiratae Ventures focuses on investments in early-stage Indian technology ventures in financial services, healthcare, food and agriculture, logistics and mobility, and sustainable consumption.

Ankur Capital invested into the Indian agricultural technology startup, Cropln, in 2013, and Chiratae Ventures made its investment into Cropln in 2018.^{*} Cropln has since grown, with a presence across 52 countries, including 36 emerging markets globally. To improve agricultural productivity and the quality of farmers' yields, Cropln provides an artificial intelligence and data-led ag-tech platform for smallholder farmers. The Cropln platform streamlines the supply chain by predicting crop health and disease, using weather advisory analytics to help farmers address climate change risks, and providing best practice packages for farmers. The platform also uses big data analytics and artificial intelligence for 400 crops to predict yields and facilitate real-time data exchange among smallholder farmers and agribusinesses.

Cropln's technology has allowed farmers to increase their awareness and use of agricultural practices such as the proper application of fertilizers and crop protection techniques.[†] Additionally, Cropln's SmartRisk solution enables banks to underwrite loan and insurance products for smallholder farmers to monitor and mitigate agricultural risk. As of 2019, Cropln works with 2.1 million farmers globally and manages seven million acres of production on the platform. Between 2015 and 2016, smallholder farmers who adopted Cropln's technology observed their crop yields increase by 25% and subsequently experienced smaller yield improvements the following year, suggesting that these clients have integrated and optimized Cropln's recommended agricultural techniques and quality inputs into their farming practices.[‡] Cropln continues to work with its farmers to identify innovative ways to improve agricultural yields each year.

The platform has also generated positive externalities, with non-Cropln farmers experiencing increased yields as they mirror the farming techniques of their Cropln-enabled neighbors, demonstrating the potential for achieving agricultural productivity gains at scale through ag-tech.



^{*} For more on Chiratae Venture's investment into Cropln, see [here](#); for more on Ankur Capital's investment into Cropln, see [here](#).

[†] To learn about the digitization of farms and its effect on sustainable agriculture, see [here](#).

[‡] For more on Cropln's impact, see [here](#).

Increased rural income and profitability

Providing high-quality agricultural inputs, delivering outgrower schemes and offtake agreements, offering agricultural trainings, and facilitating market linkages allow smallholder farmers to build more productive farms, helping to increase their income and profitability.* Increasing access to and use of quality inputs along with agricultural training can improve rural income for those most marginalized, enabling farmers to reinvest into their farms to support more profitable and sustainable production. Evidence demonstrates that increasing farm profitability, as measured through changes in client income, can also enhance food security, increase business investment by farmers, and improve rural economies.† For an example on the impact of bundling inputs with finance and training, see the Ceniarth and myAgro spotlight on page 48.

FEATURED IRIS+ METRICS

Client Individuals: Smallholder (PI6372)

Number of unique smallholder farmer individuals who were clients during the reporting year.

Individuals Trained: Total (PI2998)

Number of individuals who received training offered by the organization during the reporting year.

Producer Price Premium (PI1568)

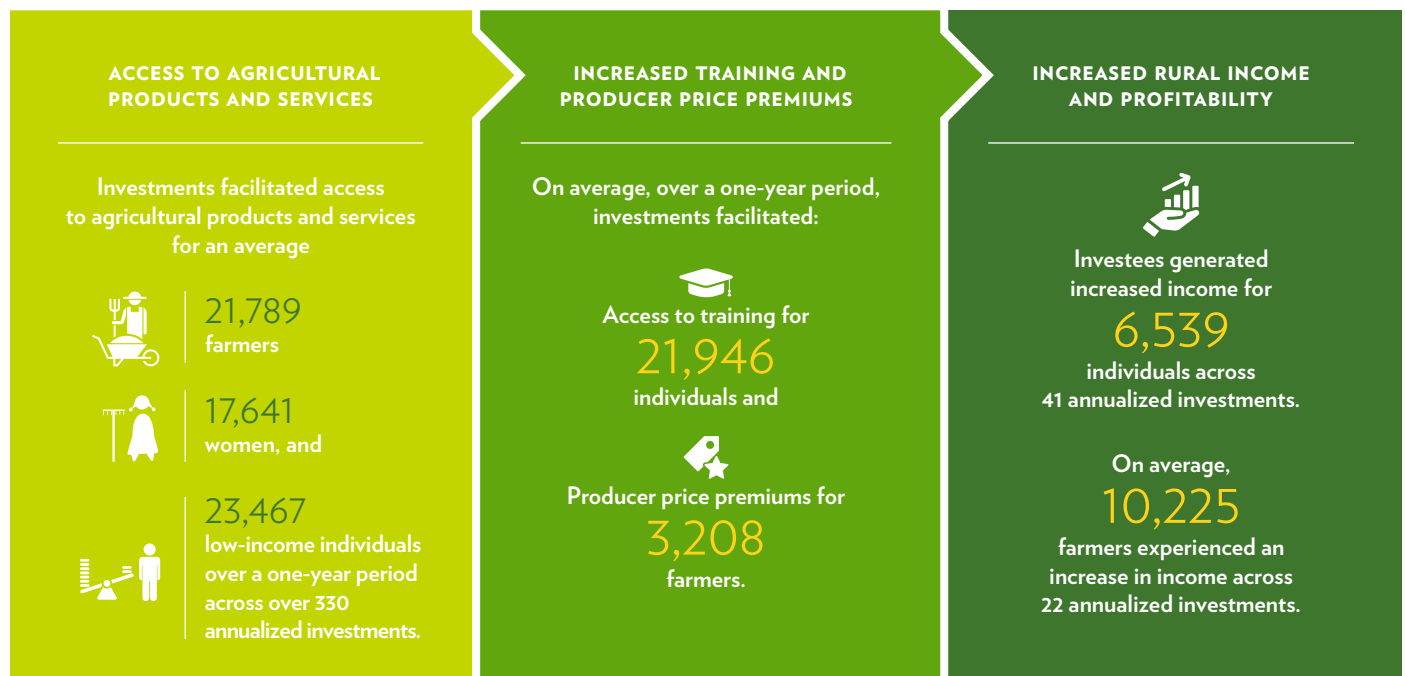
Price premium percentage that the producer (supplier) selling to the organization obtains from the organization for its goods or services during the reporting year.

Client Income (PI9409)

Number of unique individuals who were clients of the organization during the reporting year reporting an increase, decrease, or no change in income.

* Council on Smallholder Agricultural Finance, "Our Impact".

† The Evidence Map is accessed through the IRIS+ Strategic Goal, "Increasing farm profitability" of the Smallholder Agriculture theme.



Note: Figures presented in the impact pathway exclude three outliers.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

Collectively, across the 19 countries in which investees in the sample operate, investments enabled increased income for an average of 0.03% of the rural population over a one-year period.

KEY FINDINGS

An average of 6,539 individuals in this sample experienced increased income, with a median of 2,927 individuals experiencing increased income across 41 annualized investments.* **Among these investments, 62% of all clients served experienced increased income.** Together, 9% of individuals served through 566 investments in the sample received agricultural training, including agronomical know-how, organic certification training, proper use of equipment, appropriate application of fertilizer, and techniques for drying of crops and storage.† About six in ten investments associated with increased income were made into Sub-Saharan Africa, 11% were made into East Asia, and 11% were made into Southeast Asia. Collectively, across the 19 countries in which investees in the sample operate, investments enabled increased income for an average of 0.03% of the rural population over a one-year period.

ASSUMPTIONS AND CAVEATS

This approach combines nine IRIS+ metrics to arrive at a short-term outcome: the number of clients experiencing increased income across 44 annualized investments. The average annual income of those experiencing this impact outcome was USD 4,852; therefore clients experiencing increased income are presumed to be low-income living in rural, underserved areas. Individuals who receive targeted agricultural training and price premiums are likely to experience increased income.‡ The number of individuals trained was therefore combined with individuals who benefited from price premiums to arrive at the number of individuals who received both training and experienced price premiums. This figure was added to the total number of client individuals reporting increased annual income.§ To enable further comparison, the number of individuals who experienced increased income was compared to the population living in rural poverty and the total number of individuals living below the national poverty line in each country of investee operations, in a reporting year.¶

* Excluding three outlier investments. Including the outliers, an average of 32,698 client individuals experienced increased income over a one-year period. The remaining analyses in this section that assesses number of individuals excludes three outliers.

† Across 128 annualized investments in which training was provided, 45% of total client individuals served received agricultural training.

‡ For more information on the evidence associated with increasing access to agricultural training and information, and the associated outcome on income, please see the IRIS+ evidence base [here](#).

§ While in most cases respondents reported the number of smallholder farmers served, in several cases, data were provided on the number of total farmers, which may also include those farmers managing larger tracts of land.

¶ This analysis is conducted using the World Bank's data on poverty headcount ratio and rural population.

WHAT IMPACT IS TARGETED

Investments facilitating increased income and profitability most often target smallholder agriculture (85% of annualized investments) and strengthened value chains (59%), while only 15% target environmentally sustainable agriculture. Naturally, nearly two-thirds of these investments seek to increase farm profitability, followed by 60% that seek to increase access to agricultural training and information (Figure 19).^{*} More than three-quarters of investments that have increased farmer income target SDG 1 ('No Poverty'; 77%; Figure 20) and just over a third target SDG 2 ('Zero Hunger'; 34%).

Naturally, nearly two-thirds of these investments seek to increase farm profitability, followed by 60% that seek to increase access to agricultural training and information.

* These Strategic Goals are aligned with common goals under the Smallholder Agriculture theme of IRIS+.

FIGURE 19: IRIS+ strategic goals most commonly cited by annualized investments enabling increased client income

n = 43 annualized investments; respondents could select multiple IRIS+ Strategic Goals.



Note: 'Other' includes increasing farmer resilience, improving traceability, strengthening agricultural markets, and increasing farmers' access to mechanization.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 20: UN SDGs targeted by annualized investments in the sample that have enabled increased client income

n = 44 annualized investments; respondents could select multiple SDGs.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FEATURED IRIS® METRICS

Target Stakeholder Geography (PD6424)

Indicates the geography of stakeholders targeted by the organization, expressed by country, as of the end of the reporting year.

Target Stakeholders (OD7212)

Describes which entities the organization seeks to benefit via its products/services/operations as of the end of the reporting year.

Client Individuals: Low Income (PI7098)

Number of unique low-income individuals who were clients of the organization during the reporting year.

Client Individuals: Female (PI8330)

Number of unique women who were clients of the organization during the reporting year.

WHO IS IMPACTED

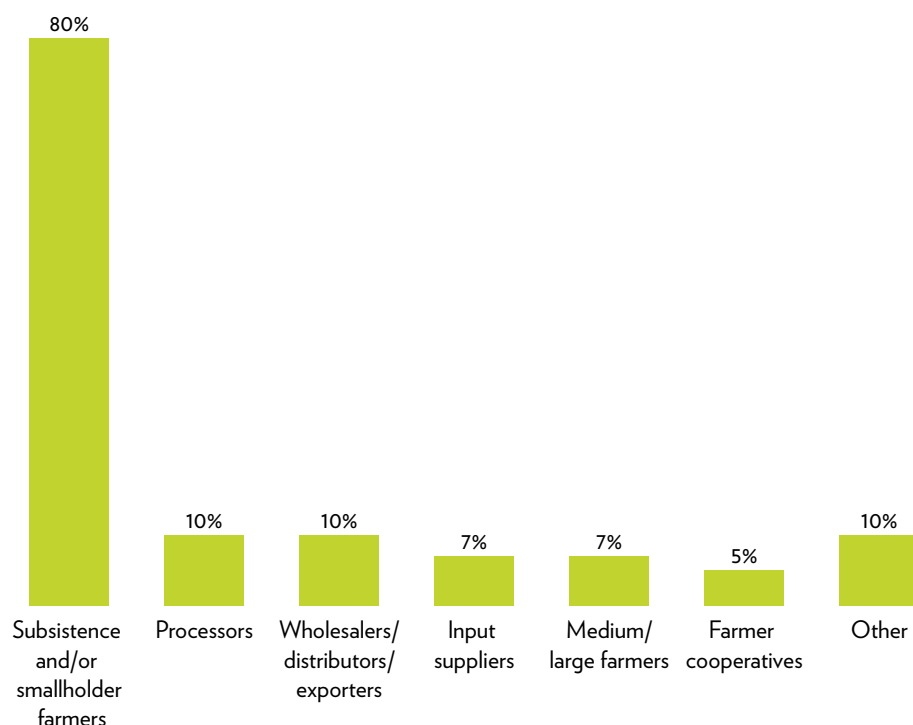
Individuals experiencing increased income are low-income individuals living primarily in rural, underserved areas, with an average annual income of USD 4,852.* An average of 6,539 individuals served by an investee in the sample experienced increased income, with each investment on average enabling increased income for 62% of total clients served across 41 annualized investments. An average of 10,225 farmers experienced increased income across 22 annualized investments, in which the only stakeholder group was farmers (Table 4). The vast majority of investments (80%) that generated income for individuals naturally target subsistence or smallholder farmers, followed by 10% that target processors and another 10% that target wholesalers, distributors, and/or exporters (Figure 21).

Individuals experiencing increased income are primarily based in emerging markets, aligned with global need. Most investments were made into investees based in sub-Saharan Africa (59%), followed by 11% in East Asia and 11% in Southeast Asia. Across the sample, 29% of those experiencing increased income are based in each of Senegal and Mali, 13% are in Tanzania, and 7% are in Kenya.

* Data on annual client income was available for 18 annualized investments that also enabled increased client income.

FIGURE 21: Stakeholder groups targeted by investments generating increased client income

n = 41 annualized investments; respondents could select multiple target stakeholder groups. Excludes three outliers.



Note: 'Other' includes agro-dealers, retailers, infrastructure providers, and vertically integrated agricultural services across the value chain.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

TABLE 4: Average and median number of individuals served by investees

	n	AVERAGE	MEDIAN
Individuals who experienced increased income			
Total individuals	41	6,539	2,927
Farmers	22	10,225	3,778
Individuals who experienced agricultural training or price premiums			
Individuals trained	132	21,946	376
Individuals receiving price premium	112	3,208	576

Note: Excludes three outliers.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

HOW IS CHANGE HAPPENING

Increased client income is most commonly generated through the provision of agricultural inputs, with nearly half of investments made into agricultural inputs achieving increased income for clients. For the average investment, the greatest proportion of clients experienced increased income through outgrower schemes and offtake agreements (75% of clients), while just 42% of clients experienced increased income through agricultural technology (42%; Figure 22).

On average, 21,946 individuals received training through investees across 132 annualized investments, representing 9% of all individuals served in the sample; at the median, 328 individuals received training for each investment. While investees providing agricultural finance deliver training for an average of 89% of total clients served, just 58% of clients receiving agricultural finance generate increased income. Meanwhile, an average of 39% of clients receiving transportation services for agricultural products receive training, and 73% achieve increased income. Common agricultural trainings include training on organic and certified production, conservation practices, soil testing, use of equipment, proper application of fertilizer, and harvesting and farming techniques.

The stage of the value chain in which the investee operates may also play a role in income generation for stakeholders. Thirty-seven percent of investments generating increased client income focus on the input supply stage, and 28% focus on processing. However, the greatest proportion of clients experienced increased income through investments into the production stage (79% of clients for the average investment). Interestingly, not a single distribution-stage investment achieved increased income.

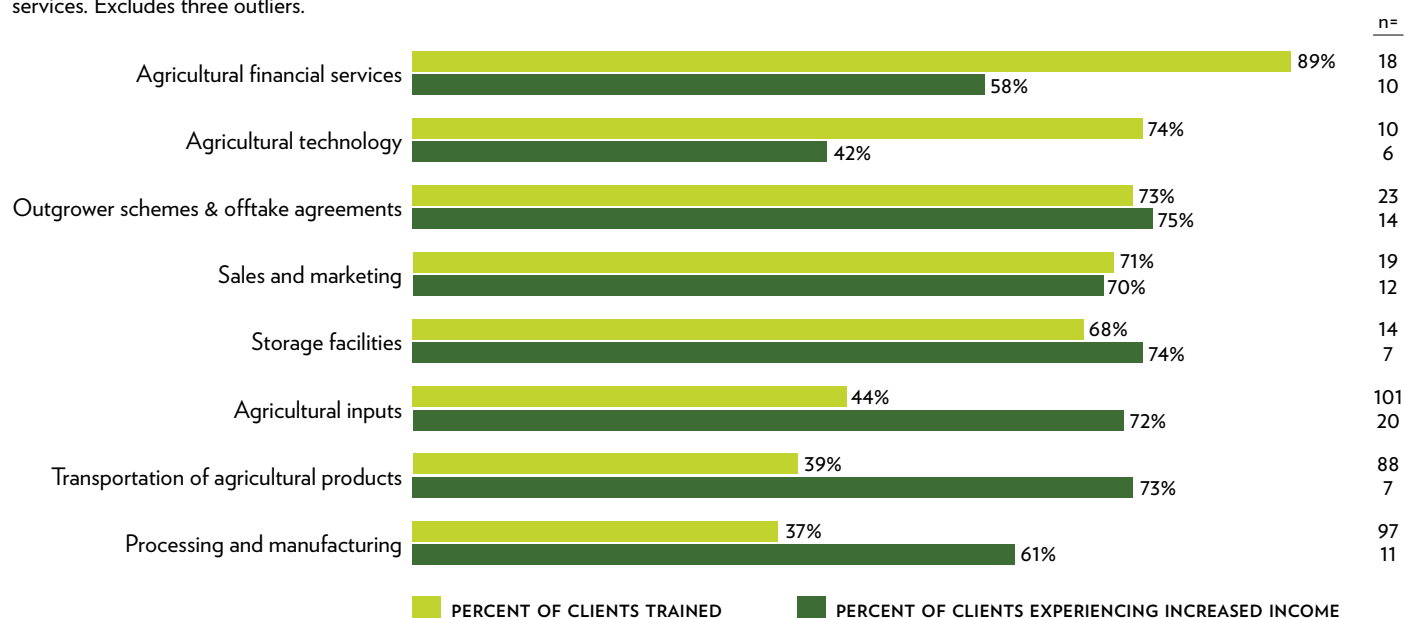
FEATURED IRIS® METRICS

Product/Service Detailed Type (PD1516)

Describes the detailed type of product or service provided by the organization.

FIGURE 22: Proportion of clients trained and proportion of clients experiencing increased income, by product/service

n = 132 annualized investments provided training and 41 annualized investments increased clients' income; respondents could select multiple products/services. Excludes three outliers.



Note: 'Other' has not been included due to small sample size.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

The average investment where individuals had no previous market alternatives generated increased income for 14,374 clients, as compared to 3,399 clients with increased income in markets where a few informal alternatives were already available.

For 33% of investments achieving increased income for clients, stakeholders did not have any previous access to products or services, as the investee was the sole provider in the market (Figure 23). The average investment where individuals had no previous market alternatives generated increased income for 14,374 clients, as compared to 3,399 clients with increased income in markets where a few informal alternatives were already available.

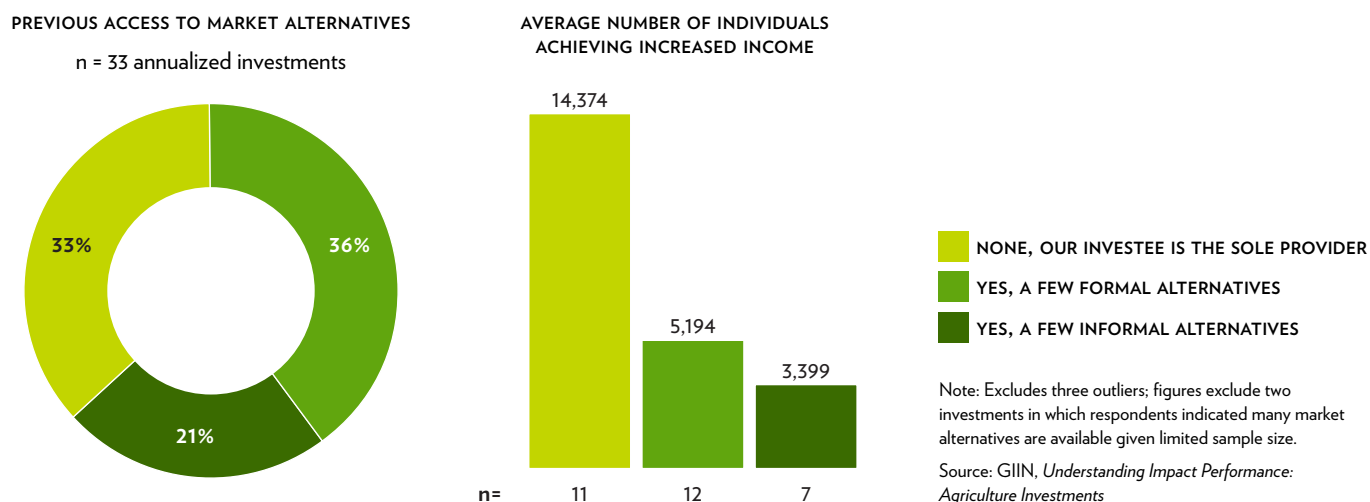
Interestingly, neither capacity-building nor non-financial support was provided for 71% of investments that enabled increased income for end stakeholders. However, nearly all of these investments (78%) still provided training, suggesting that such training was not funded as part of any capacity-building or non-financial support provided through the investment. For those investments that did offer capacity-building or non-financial support, this was most often funded via a whole or partial cost-share with the investee (24%) or by donors, such as government agencies (16%).

IMPACT RISKS PERCEIVED BY INVESTORS

Investments that result in increased client income most commonly faced external risk (71% of investments), followed by execution risk (50%) and evidence risk (38%).* In one case, an investor highlighted that efficiency risk has been particularly pervasive in hindering the achievement of increased farmer income; while the cost of delivering agricultural inputs is currently higher than anticipated, resulting in a lower number of farmers than planned generating increased income, the investor and investee are working together to reduce costs and increase efficiencies. Another investor mitigates efficiency and execution risks by linking repayment structures to agricultural harvesting cycles in order to lower the risk of farmer defaults. This approach helps farmers to build credit histories and prepare for loan disbursements from more traditional lenders.

* See Appendix 3 for definitions of various impact risks.

FIGURE 23: Previous access to market alternatives and average number of individuals achieving increased income



Progress toward increasing rural income and profitability

Over a one-year period, each investment facilitated:


Agricultural training for an average
21,946 individuals;


Producer price premiums for an average
3,208 farmers

Most commonly, increased income was generated through:



Note: n = 41 annualized investments; excludes three outliers.

An investment generated increased income for an average

6,539 individuals

across 41 annualized investments

On average,

 **62%**

of all clients served experienced increased income across the 41 annualized investments.

Among whom



59%
previously lacked
access to market
alternatives.

n = 33; excluding three outliers.

Investments across the sample
facilitated access to products
and services for an average of:



On average, investees enabled an
increase in client income for:

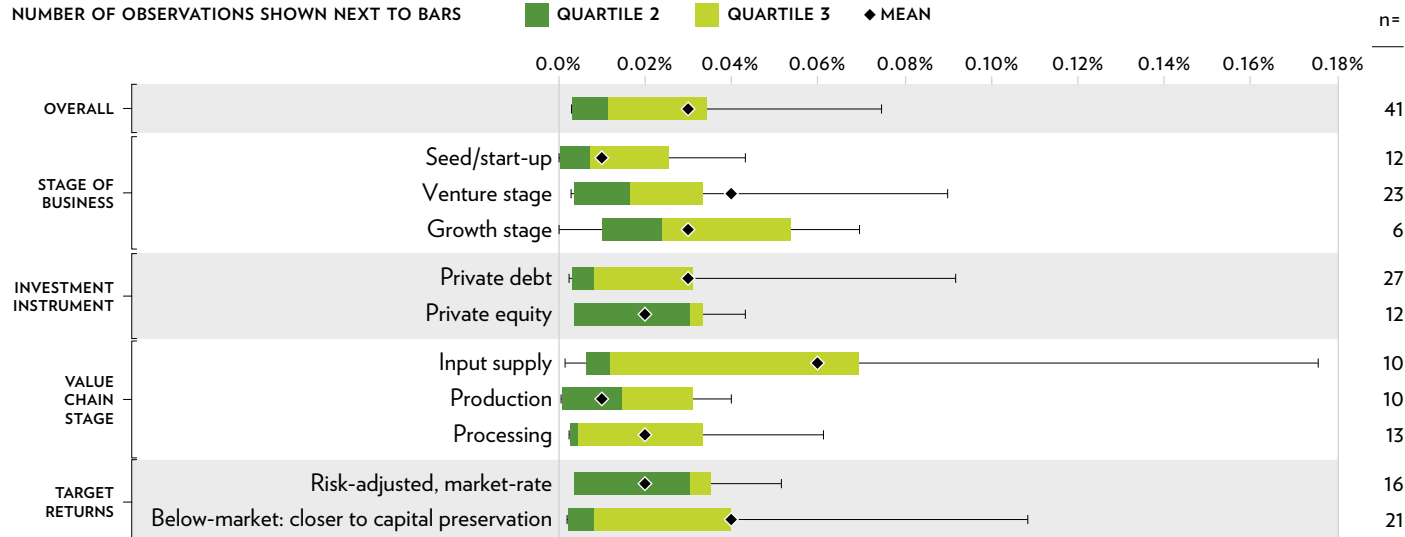
0.03%

of the population living in rural areas,
in the country in which the investee operates.

The number of individuals experiencing an increase in income relative to rural poverty in an investee's countries of operations varies by contextual factors, including investee stage of businesses, investment instrument, investee stage of value chain, and target returns:

BARS RANGE FROM 10TH TO 90TH PERCENTILES;
NUMBER OF OBSERVATIONS SHOWN NEXT TO BARS

■ QUARTILE 2 ■ QUARTILE 3 ◆ MEAN



Note: Percentages in this figure depict average numbers of individuals generating increased income relative to the total population living below the national poverty line in the countries in which each investee operates. Number of annualized investments in each category shown beside each bar; excludes three outliers.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: CENIARTH AND MYAGRO

Empowering farmers with quality inputs, training, and savings

Ceniarth is an impact-first family office that supports market-based solutions benefitting underserved communities globally.

In 2017, Ceniarth invested in West Africa-based myAgro, a mobile platform that allows farmers to save in small increments to access a bundled product, including quality seed, fertilizer, tools, and training. Through this approach, farmers invest into their own farms by saving in small amounts over a six-month period to purchase bundled inputs in time for planting season. This approach eliminates the risk of overindebtedness while providing new income-generating opportunities for farmers living on less than USD 2 per day. In 2019, 61,572 smallholder farmers across Mali, Senegal, and Tanzania invested incrementally in their farms in partnership with myAgro.*

Each myAgro client attends an agricultural training program on harvesting techniques, such as micro-dosing to improve soil health, and proper storage techniques. The inputs themselves, such as myAgro's improved sorghum package, allow farmers to grow crops

that are resilient to the effects of climate change. While myAgro farmers consistently generate increased yield, farmers are naturally impacted by external risk factors, including unpredictable weather patterns, crop disease, and pests, volatility that directly affects farmer profitability. To mitigate such risks, myAgro piloted a bundled product in 2017, combining climate insurance with its input packages for staple crops provided to all its farmers. The bundle of inputs and training has enabled farmers to increase their harvest and incomes; on average, in 2019, farmers experienced a 50% to 100% increase in harvest yields per hectare and a 50% increase in farming income. myAgro expects that this approach has increased farmers' purchasing power, translating to greater food security for their families, more customers for agribusinesses, and wealth creation across the rural value chain.† In particular, myAgro finds that income gains for female farmers, who constitute 60% of myAgro's client base, lead to greater investments back into their families, education, and healthcare, moving farmers out of poverty without putting them in debt.



* Learn more about myAgro's impact [here](#).

† See [here](#) for more on myAgro's long-term impact outcomes.

Increased rural employment

Impact investments in agriculture influence rural employment both through the enterprises they finance and through those enterprises' clients, whether individuals or organizations. By channeling agricultural inputs, products, and services to underserved areas and by strengthening market linkages, impact investments can enhance investees' operations, translate growth into revenue streams, and direct those revenues toward growing the number of jobs associated with their direct activities or the activities of their clients. Further, by providing client individuals with agricultural inputs and techniques, investments can strengthen the vitality and stability of clients' livelihoods, including in the face of economic shocks. As a result, the agricultural sector further contributes to rural economic productivity and resilience.

FEATURED IRIS® METRICS

Client Individuals: Rural (PI1190)

Number of unique individuals residing in rural areas that were clients of the organization during the reporting year.

Client Organizations: Total (PI9652)

Number of enterprises that were clients of the organization during the reporting year.

Jobs in Directly Supported/Financed Enterprises (PI4874)

Number of full-time equivalent employees working for enterprises financed or supported by the organization as of the end of the reporting year.

ORGANIZATIONS AND ENTERPRISES FINANCED



On average, investors
in this sample financed
10 investees
and annually, investees
served an average of
**93 client
organizations.**

JOBS ASSOCIATED WITH AGRIBUSINESSES AND ORGANIZATIONS



Among
178
investees serving
40,606
client organizations,

the average investment facilitated
257 jobs
per year.

RURAL LIVELIHOODS

Over a one-year period,
investees served an average of
79,758
rural clients
with access to various agricultural
inputs, products, and services.



Access to such
products and services,
and the corresponding gains to
clients' livelihoods, can increase
economic stability for
rural households.

This amounts to 0.005% of jobs, on average, in the agricultural sector in the countries in which investees operate and 0.035% of unemployment, on average.

KEY FINDINGS

Across sample investments, 193 shared data on the number of jobs at either directly at the investee organization or indirectly through investees' clients. Nearly all of the organizations and clients associated with investees operate or reside in rural areas (98%). **On average, an investment was associated with 79,758 rural clients, 93 client organizations, and 257 jobs annually.** This amounts to 0.005% of jobs, on average, in the agricultural sector in the countries in which investees operate and 0.035% of unemployment, on average. The number of jobs supported was disproportionately large in sub-Saharan Africa, which accounted for 50% of the sample yet 68% of jobs. Entities operating in the production and distribution phases of production reported the highest average number of jobs, at a respective 351 and 284 jobs annually.

ASSUMPTIONS AND CAVEATS

This approach analyzes eight IRIS+ metrics to understand changes in rural employment. Specifically, this pathway focuses on the number of jobs at directly and indirectly financed organizations and changes to livelihoods among smallholder or subsistence farmers. Among reporting investor organizations, 98% had rural clients and are therefore presumed to have sustained jobs in rural areas or otherwise influenced rural livelihoods. Given this strong focus on rural operations, all jobs at directly or indirectly financed organizations across the sample are presumed to affect rural areas, even though specific breakdowns in the location of jobs were unavailable. Furthermore, this study did not collect data pertaining to the quality of the jobs. To enable broader comparisons, the number of jobs at directly and indirectly financed enterprises is compared both to the number of unemployed people and to the number of jobs in the agricultural sector in each country of investee operations during the given reporting year.

WHAT IMPACT IS TARGETED

Investments that reported jobs at directly or indirectly financed organizations most commonly sought to increase farm profitability (68%; Figure 24), access to better, more stable pricing of agricultural products (63%), access to and use of agricultural inputs (59%), and production of more healthy and sustainable crops (44%). These Strategic Goals represent strategies within both smallholder and sustainable agriculture.* Roughly six in ten of these investments align to SDG 2 ('Zero hunger'; 62%) and SDG 1 ('No poverty'; 58%; Figure 25). Broadly, investments that increase employment opportunities target the same SDGs as the overall respondent sample.

* The Smallholder Agriculture Strategic Goals are aligned with common goals under the Smallholder Agriculture theme of IRIS+. At the time of writing, the GIIN is currently developed the IRIS+ strategic goals and Core Metrics Sets for Sustainable Agriculture.

FIGURE 24: Smallholder and sustainable agriculture goals targeted by annualized investments associated with increased rural employment

Respondents could select multiple Strategic Goals for each investment.

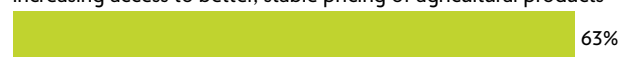
IRIS+ SMALLHOLDER AGRICULTURE STRATEGIC GOALS

n = 128 annualized investments

Increasing farm profitability



Increasing access to better, stable pricing of agricultural products



Increasing access to and use of quality agricultural inputs



SUSTAINABLE AGRICULTURE STRATEGIC GOALS

n = 74 annualized investments

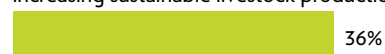
Increasing production of healthy and sustainable crops



Increasing conservation and restoration of land, including agro-forestry



Increasing sustainable livestock production



Note: This figure reflects the top three most commonly targeted strategic goals in each of smallholder and sustainable agriculture. 'Other' strategic goals targeted included increasing resilience of smallholder farmers, increasing access to transportation for agricultural products, increasing agricultural productivity, improving agricultural value chains, and increasing access to mechanization for farmers.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FIGURE 25: UN SDGs targeted by annualized investments associated with rural employment

n = 172 annualized investments; respondents could select multiple SDGs for each investment.



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

FEATURED IRIS® METRICS

Target Stakeholder Geography (PD6424)

Indicates the geography of stakeholders targeted by the organization, expressed by country, as of the end of the reporting year.

Target Stakeholders (OD7212)

Describes which entities the organization seeks to benefit via its products/services/operations as of the end of the reporting year.

Client Individuals: Smallholder (PI7098)

Number of unique smallholder farmer individuals; number of unique low-income individuals; number of unique individuals residing in rural areas, all of whom were clients during the reporting year.

WHO IS IMPACTED

On average, investees reported 257 jobs at directly or indirectly financed enterprises per year (87 jobs at the median).^{*} Nearly universally, investments that reported increased employment described reaching clients and other key stakeholders in rural markets (98%); 16% additionally had urban or peri-urban operations. Reflecting this rural focus, over three-quarters of investments that reported increased employment target subsistence and/or smallholder farmers (Figure 26; 76%).

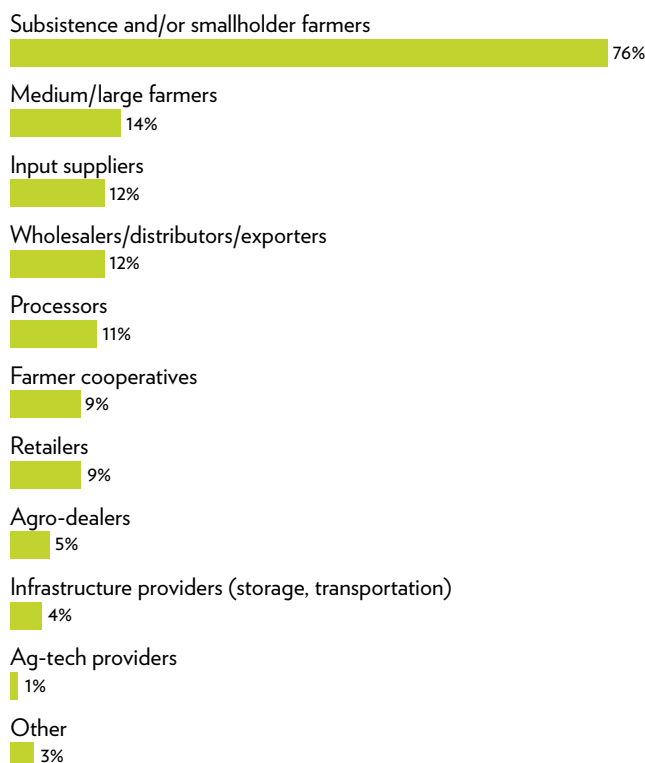
Within the sample, half of investments reported investee operations in sub-Saharan Africa, which accounted for 68% of total jobs at directly or indirectly financed enterprises, suggesting more efficient employment generation per investment.[†] The second-highest share of investments was into South Asia (19%), which accounted for 16% of jobs. Latin America and the Caribbean accounted for 7% and 11% of sample investments and jobs, respectively. Table 5 breaks down jobs at the country level.

* Figure excludes three outliers; including outliers, the average investee reported 512 jobs per year.

† To avoid double counting, figures exclude 16 investments into investees operating in multiple countries.

FIGURE 26: Stakeholder groups targeted by investments that increased employment

n = 140 annualized investments; respondents could target multiple stakeholder groups.



Note: 'Other' includes mobile agents, staff, and food-insecure customers.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

TABLE 5: Percent of investments and percent of jobs at directly or indirectly financed enterprises

Table depicts the top ten countries of jobs within the sample; percentages are based on the overall sample of 145 investments.

COUNTRY	PERCENT OF INVESTMENTS	PERCENT OF JOBS	NUMBER OF JOBS
Malawi	2%	17%	6,327
India	19%	16%	5,973
Peru	5%	10%	3,679
Angola	3%	8%	3,013
Tanzania	6%	8%	2,979
Kenya	9%	7%	2,465
Uganda	5%	6%	2,330
Mozambique	8%	6%	2,114
South Africa	2%	5%	1,788
Ethiopia	1%	5%	1,669

Note: To avoid double counting, figures exclude three outliers and 16 investments into investees operating in multiple countries.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

HOW IS CHANGE HAPPENING

Investors reported a range of strategies to engage with stakeholders, including employees. Most commonly, investee companies manage stakeholder engagement, but investors do not (53%). In some cases, investors work with investees to reflect stakeholders' perspectives in their product or service offerings (30%) or collect impact data from stakeholders via interviews or surveys (24%).

Investees offer a range of products and services to support the agricultural sector, from sourcing from smallholder producers to processing dairy products to selling crops in markets. The greatest average annual increase in the number of jobs per investment occurred among those investees providing processing and manufacturing services (Table 6; 344 jobs), followed by outgrower schemes and offtake agreements (308) and agroecological farming (305). However, the greatest number of rural clients was achieved by investees offering agricultural financial services (190,907 clients per year) or agricultural technology (190,924).

FEATURED IRIS® METRICS

Product/Service Detailed Type (PD1516)

Describes the detailed type of product or service provided by the organization.

Stakeholder Engagement (OI7914)

Describes the mechanisms in place together input from stakeholders on product/service design, development, and delivery.

TABLE 6: Average and median number of jobs and rural clients served by investees

	JOBS AT DIRECTLY OR INDIRECTLY FINANCED ENTERPRISES			RURAL CLIENTS SERVED		
	n	AVERAGE	MEDIAN	n	AVERAGE	MEDIAN
Agriculture product or service						
Processing and manufacturing	53	344	156	40	5,542	1,462
Outgrower schemes & offtake agreements	59	308	115	56	3,521	1,482
Agroecological farming	5	305	333	4	28,072	2,249
Agricultural financial services	18	260	93	18	190,907	10,581
Sales and marketing	35	230	109	24	6,841	5,434
Agricultural inputs	59	221	108	55	58,243	5,457
Agricultural technology	26	210	67	17	190,924	3,700
Transportation of agricultural products	16	188	136	16	4,414	1,517
Storage facilities	18	172	68.5	15	4,927	3,421
Position along agriculture value chain						
Input supply	22	237	98	25	123,583	19,456
Production	64	351	91	58	108,506	719
Processing	43	213	92	30	7,694	1,170
Distribution	8	284	381	7	4,148	3,421
Other	24	181	84	14	4,951	2,506

Note: Figures for jobs excludes three outliers and for rural clients excludes one outlier investment and one outlier investor. Investees may offer multiple products and services. 'Other' phases of the agricultural value chain include ancillary services, export, or those operating across multiple stages of the value chain.

Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

The average number of jobs at directly or indirectly financed enterprises per year is highest among those investees operating in the production stage of the agriculture value chain (351 jobs), followed by distribution (284). The input-supply phase, on the other hand, reached the greatest number of rural clients (19,456 clients). In about two-thirds of cases, investees operated in markets where a few formal alternatives previously existed (68%).

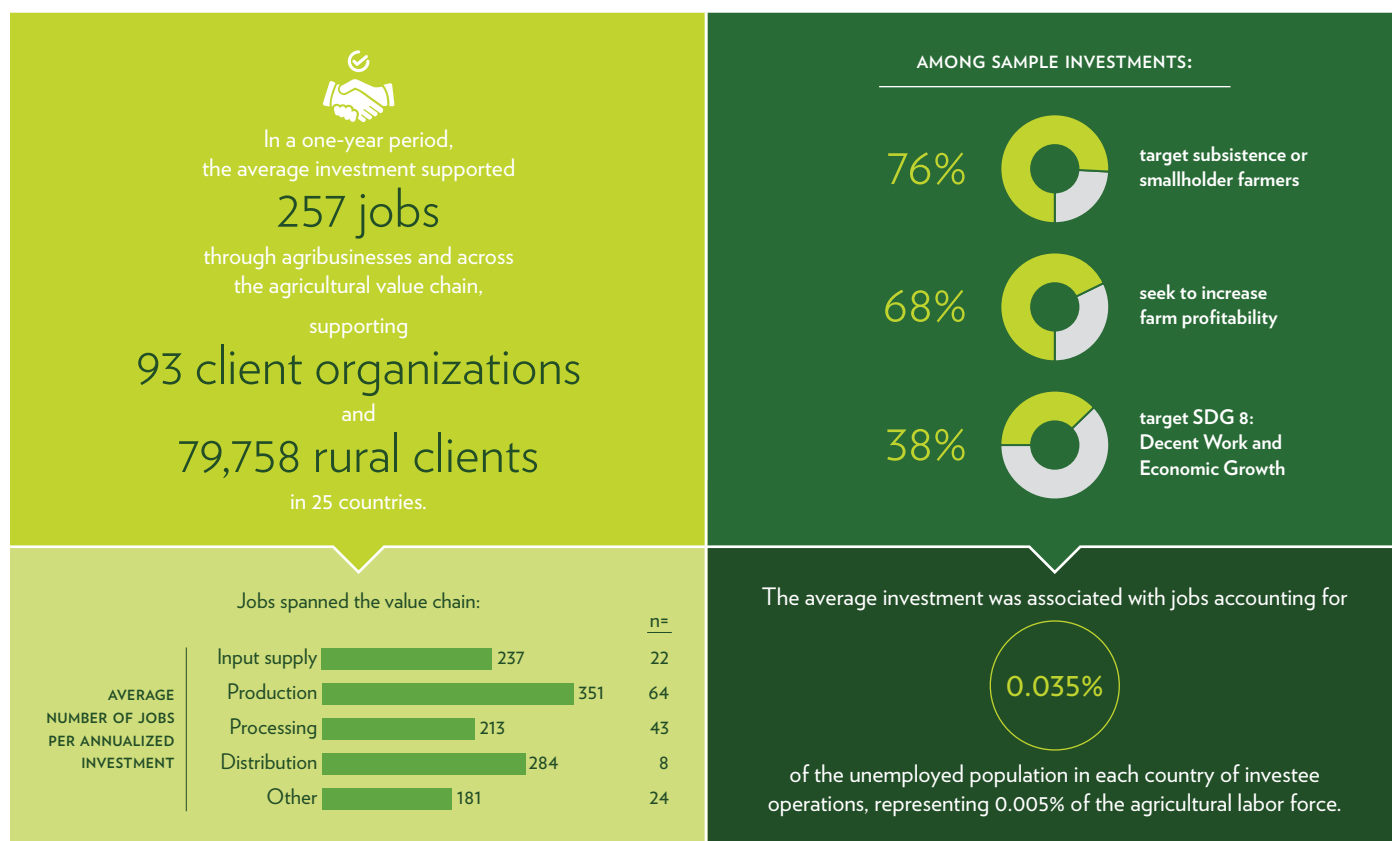
Investments for which non-financial support was provided enhanced rural employment more on average than those offered no support, creating an average of 398 jobs and serving 104,997 rural clients compared to an average of 356 jobs and 91,501 rural clients. Interestingly, the number of jobs supported and rural clients served varied widely by strategy for funding capacity-building. That is, the funding model of support correlated with its effectiveness. Investments for which support was funded by donors, such as government agencies, supported an average of 686 jobs and served 114,298 rural clients. In cases where support was financed via a whole or partial cost share with the investee, however, the average number of jobs was 210 and the number of rural clients served was 67,936.

IMPACT RISKS PERCEIVED BY INVESTORS

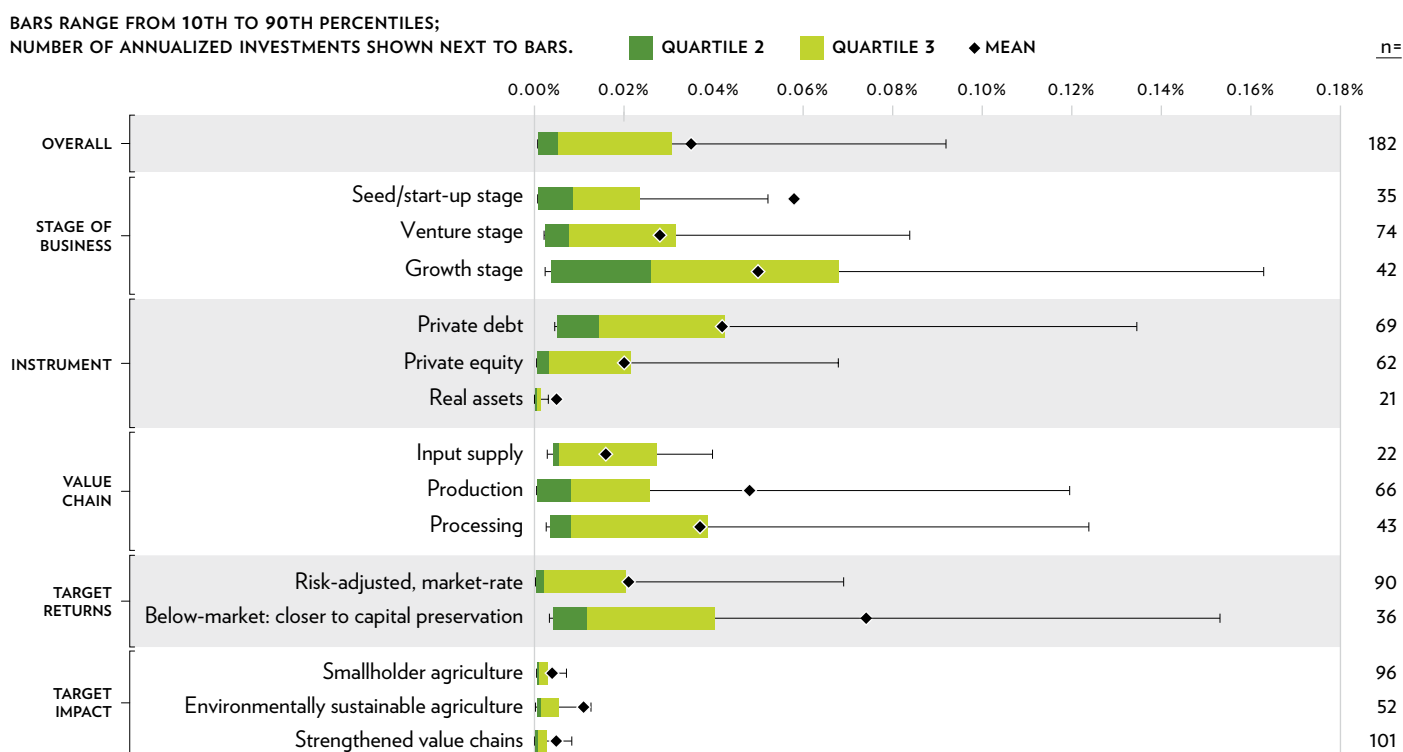
Investments noting increased employment most commonly cited facing external risk (72%), followed by execution risk (36%).* The least commonly cited impact risks included efficiency and contribution risks (1% each). Specific examples of risk incidences included limited distribution to informal markets in light of the COVID-19 pandemic, slower than expected growth in certain revenue streams or declining market demand, and slower than expected recruitment of farmers onto the investee's platform.

* See Appendix 3 for definitions of various impact risks.

Progress toward increasing rural employment



The number of jobs at directly or indirectly financed organizations was compared to the unemployed population in the countries in which each investee operates:



Source: GIIN, *Understanding Impact Performance: Agriculture Investments*

SPOTLIGHT: SHARED INTEREST AND AWAB

Supporting rural employment and agricultural markets

Shared Interest is U.S.-based non-profit organization that provides loan guarantees to financial institutions in Southern Africa with a focus on reducing poverty and strengthening financial institutions to change lending practices in order to serve previously excluded markets.

In 2018, Shared Interest provided a USD 600,000 loan guarantee to African Women in Agribusiness (AWAB), an association of nine women-led seed companies in Malawi. AWAB sources, produces, and distributes affordable, high-protein, drought-resilient local seed varieties to smallholder farmers. By providing planting material to its network of smallholder growers, AWAB helps farmers to produce basic and certified seeds that are then sold to farmers across Malawi, who use these seeds to produce grain for sale and consumption.* In Malawi, an environment where seed is most often produced by large commercial farms, it can be difficult for smallholder farmers to participate in the seed market. AWAB coordinates with 1,310 smallholder growers, 70% of whom are women, facilitating opportunities to participate in this market and produce certified seeds that sell at an average price premium of

500% relative to grain, translating to increased income for smallholder farmers.†

Shared Interest recognizes that the informal economy plays a substantial role in Malawi's agricultural sector. In the example, aside from the nine women seed entrepreneurs, AWAB formally employs an additional nine individuals, who provide back-office and operational support for the organization. AWAB hires an additional 114 employees, generally seasonal staff, to grade, process, and package its seeds. AWAB also informally supports more than 7,300 farmers by providing them with access to quality inputs and reliable markets for their crops, helping them earn higher incomes and sustain their livelihoods. In an effort to support the professional development of the nine women entrepreneurs who lead AWAB, Shared Interest works with its local partners, such as the Graça Machel Trust, to provide trainings on business and negotiation skills to approach lenders, funders, and grant-makers. AWAB also trains the farmers and field officers who produce, purchase, and vet the quality of its seed. These trainings allow AWAB to support jobs and improve the quality of its operations and products.



* To learn more about AWAB and seed resilience in Malawi, see [here](#).

† For more information on the impact of AWAB on sustaining farmer livelihoods, see [here](#).

Lessons learned

Feasibility

This research builds on the pilot edition of the GIIN's Impact Performance Study, which demonstrated that impact performance can be aggregated and compared among impact investments.²⁷ Building on this approach, this second edition seeks to deepen the analytic model and enable increasingly rigorous and transparent comparison of impact results. To this end, the Research Team collected data on 661 annualized impact investments in agriculture from 38 impact investors. Such strong participation reiterated impact investors' demand for comparable impact performance analyses.

Through conversations with study participants, the Research Team sought to ensure appropriate interpretation of impact results, explore participants' impact measurement and management processes, and understand the causes of data gaps. The Team also gauged progress in several key areas that are required to enable aggregate and comparable impact performance analysis — and ultimately to drive the development of benchmarks, ratings, and other tools for impact-drive decision-making:

1. **Availability and shareability of impact performance data:** Impact investors in agriculture can report impact performance data on both the depth and breadth of impact achieved by investees at scale, as evidenced by the hundreds of investments this study includes. However, the research process also highlighted the remaining gaps in terms of standardizing not just which metrics investors use but also how data for those metrics are collected, calculated, and reported. For example, although respondents in this sample shared data on greenhouse gas emissions (GHGs) across 17 annualized investments, they did so inconsistently, with some respondents collecting data on GHG emission reductions, others on GHG sequestration, and still others on GHG avoidance. Naturally, this limited the ability to conduct comparable and meaningful analysis. Nevertheless, there are signs of increasing sophistication and cohesion across the industry; for most annualized investments, investors shared quantitative impact data for several IRIS+ aligned metrics on the questionnaire, demonstrating consistent data collection and calculation.
2. **Relevance of data to impact performance and longer-term outcomes:** Investors increasingly align to standardized IRIS+ metrics, which are backed by evidence and therefore designed to indicate specific, real world outcomes. Yet translating output metrics into long-term impact outcomes remains a challenge for most investors. Availability of data was especially limited among outcome metrics; across 661 annualized investments in the sample, respondents were able to share for just 13 investments data on change in agricultural yield per stakeholder.

Through conversations with study participants, the GIIN sought to ensure appropriate interpretation of impact results, explore participants' impact measurement and management processes, and understand the causes of data gaps.

This finding reflects resource constraints associated with directly collecting outcomes data and highlights an opportunity to expand the industry's ability to triangulate to outcomes based on sets of outputs using evidence-backed analytics and research methods.

3. **Rigor and thoroughness of the analytic approach:** This second edition study not only showed that all of the aforementioned key factors hold for the comparability of impact performance in agriculture but also enabled the GIIN to deepen its approach to understanding impact results in a comparable way through three core analytical 'building blocks' described in the Methodology section: normalization of results, outcomes assessment, and segmentation and clustering of findings. Increased clarity around these core components of analysis and how they fit together represents yet another step toward comparable impact results that account for both investment- and company-level context. Ongoing iteration and application of this methodology will further strengthen the insights that result from analysis of impact performance.

Notably, analysis presented throughout this report does not specifically assess a counterfactual or otherwise try to determine the likely level of impact that would have occurred without the investor's and investee's engagement.

Challenge of analyzing investor contribution

The Impact Management Project defines contribution as the indication of whether an investee's or investor's efforts resulted in outcomes that were likely better than what would have otherwise occurred.²⁸ To assess contribution thus requires analysis of key factors that fall under the control and influence of both investor and investee.

In this study, the Research Team explored key factors at the investor level that contribute to impact performance: timing of investment, types and terms of capital provided, and engagement with the investee through non-financial support or other forms of stakeholder engagement. At the investee level, this study explored which and how social or environmental needs are being addressed, both key inputs for understanding contribution. These factors are integrated into the analysis presented throughout this paper rather than being considered separately from impact results.

Notably, however, analysis presented throughout this report does not specifically assess a counterfactual or otherwise try to determine the likely level of impact that would have occurred without the investor's and investee's engagement. To do so would require significant expansion of the number of metrics required, thus deterring data collection efforts, in addition to requiring a host of assumptions that cannot be sufficiently backed by evidence, ethics, or rigor. Further research may explore the various drivers of impact performance at both investor and investee levels, the results of which can inform and enhance the industry's understanding of how contribution might be assessed.

Impact performance information for decision-making

Considering information about impact performance alongside risk and return enables investors to arrive at better answers to a range of questions — and therefore better decisions — across the various phases of the investment process. As the volume of analyzed performance data continues to grow, so too will investors' ability to extract meaningful, informative insights about historical and potential impact performance. Throughout the research process, investors described various use cases for aggregate or comparable impact performance information, as detailed below.

FIGURE 27: Applications of comparable impact performance information across the investment process



Opportunities for further research

Future research should explore this link between investment-level and portfolio-level impact performance.

Any research project requires carefully bounded scope to ensure an appropriately focused and thorough effort and also inevitably elicits many more opportunities for further research, whether by the GIIN or other researchers. In that respect, four areas for especially productive future research emerged:

1. **Translating investment-level impact performance to the portfolio and fund levels. Data availability led this study to focus deliberately on the comparability of impact performance at the investment level.** The utility of analysis would be further amplified by understanding how investment-level performance translates to portfolio-level performance. To date, some actors, such as the Impact Frontiers Collaborative, have made headway in demonstrating how a fund's portfolio can be constructed to consider both impact and financial returns.²⁹ However, this work does not yet enable portfolio-to-portfolio comparability on the basis of impact. Future research should explore this link between investment-level and portfolio-level impact performance.
2. **The business value of impact management.** If investors could better understand impact performance results, they may be able to finance opportunities that address targeted social or environmental challenges and shape their financing strategies, terms, and delivery to enhance results against those challenges. Further unpacking use cases of impact performance information and the associated business benefits at both the investor and investee levels might provide more impetus for investors to pursue opportunities with higher impact potential.
3. **The relationship between the impact and financial performance of impact investments and funds.** Investors use a variety of methods to manage the dynamic relationship between desired impact goals and financial performance relative to a risk tolerance profile. The industry would benefit from further research that explores these patterns. Such research could also explore how various methods of portfolio construction might optimize impact and financial results.
4. **The interrelationship between factors influencing the performance of an impact investment.** There are dynamic relationships among a range of factors investors consider throughout the investment process, but some of these were beyond the scope of this research. Specifically, further research could explore:
 - a. *Time and timing:* How impact results change or endure over time given the growth patterns of different segments within a sector and the influence of macroeconomic events; and
 - b. *Drivers of impact performance:* How investors' and investees' respective motivations, processes, and activities drive impact results.

By sharing insights from this research, the GIIN hopes to inspire further work by academics and practitioner-oriented researchers, to ultimately shape tools and practices to advance the industry.

APPENDIX 1:

Study participants and advisors

This study would not be possible without the participation, guidance, and leadership from the following impact investors:

AgDevCo	City Light Capital	Nexus for Development
Agriculture Capital	Common Fund for Commodities	Nuveen, A TIAA Company
AHL Ventures	Ecosystem Integrity Fund	Oikocredit International
AlphaMundi	Ehong Impact Capital	Okavango Capital
Althelia Funds/Mirova Natural Capital	EXEO Capital	Open Value Foundation/ Global Social Impact
Ankur Capital	FINCA Ventures	responsAbility Investments AG
Anonymous 1	Grassroots Business Fund	Root Capital
Anonymous 2	IGNIA	Shared Interest
Anonymous 3	Investisseurs & Partenaires	Southern Pastures
Anthem Asia	IDB Invest	The Nature Conservancy - NatureVest
Capital 4 Development Partners	Insitor Management	UBERIS
CDC Group	Local Enterprise Assistance Fund	Vital Capital Fund
Ceniarth LLC	Mennonite Economic Development Associates (MEDA)	Volta Capital
Chiratae Ventures	Mercy Corps Ventures	

We are most grateful to the following organizations who offered advice and guidance throughout various stages of this process, generous with their time and expertise:

Agro-Ecological	Initiative for Smallholder Finance (ISF)	William Penn Foundation
Annona Sustainable Investments	Innpact	World Bank Group
Commercial Agriculture for Smallholders and Agribusiness (CASA)	International Fund for Agricultural Development (IFAD)	World Benchmarking Alliance
Council on Smallholder Agricultural Finance (CSAF)	Mad Agriculture	
Finance in Motion	Omnivore Capital Management	
	One Acre Fund	

Outreach partners

The GIIN appreciates the support of the following organizations, which helped to encourage impact investors in their networks to participate in this research study:



AVPN: As the only comprehensive funders' network in Asia, AVPN is a leading ecosystem builder for the social investment sector with 590+ members globally. AVPN's mission is to catalyse the movement toward a more strategic, collaborative, and outcome-focused approach to social investing, ensuring that resources are deployed as effectively as possible to address key social challenges facing Asia today and in the future.

www.avpn.asia/about-us



Bertha Centre: The Bertha Centre for Social Innovation and Entrepreneurship is a specialized unit at the University of Cape Town's Graduate School of Business (GSB). Its mission is to build the capacity and pioneering practices in Africa — with partners, practitioners and students — to advance the discourse and systemic impact of social innovation. In collaboration with the GSB, the Centre has integrated social innovation into the business school curriculum, established a wide community of practitioners and awarded over ZAR 7 million in scholarships to students from across Africa. It was established in 2011 in partnership with the Bertha Foundation, a family foundation that works with inspiring leaders who are catalysts for social and economic change and human rights, the Centre has become a leading academic center in Africa.

<https://www.gsb.uct.ac.za/>



New Ventures: New Ventures (NV) catalyzes innovative enterprises that generate profit and contribute to solve environmental and social problems in Latin America. As the leading platform of the impact investing sector in the region, NV works through four main pillars, which are acceleration, financing, promotion, and training, to strengthen the regional social entrepreneurship ecosystem.

<https://nvgroup.org/>



SIIF: SIIF aims to catalyze a new capital flow model that transcends existing boundaries between private, public, and civil sectors. SIIF seeks to nurture a social impact investment ecosystem that will support Japan's sustainable development, making it a global forerunner in shouldering social issues unique to developed economies. SIIF takes three approaches to achieve its mission:

Fund: Provide risk capital and demonstrate a variety of models for social impact investment in Japan.

Hub: Build the cornerstone of the ecosystem and connect impact communities into a network by providing subsidies, investments, and other financial as well as non-financial support to intermediaries that connect business operators, investors, and other important stakeholders.

Thinktank: Co-create, circulate, and catalyze social change together with important stakeholders. SIIF seeks to produce information and make policy proposals necessary for the growth of a social impact investment market.

<http://www.siif.or.jp/en>

APPENDIX 3:

List of definitions

GENERAL

Impact: Positive and negative social and environmental results associated with a given investment, without necessarily a link or attribution of those results to an investment and the products, services, and operations of the investee. This report reflects both positive and negative impacts, to the extent that it's possible.

Impact investments: Investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. They can be across asset classes, in both emerging and developed markets, and target a range of returns from below-market to market-rate, depending on the investors' strategic goals.

Impact pathway: A sequence that connects outputs-level data to short-term outcome indicators, based on relevant sets of evidence and rigorous assumptions.

Investee: The recipient of investment capital, typically a company, project, or real asset.

Livelihoods: A means of making a living; the activities and resources that allow people to live. – *Source: FAO*

Outputs: The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.

Outcomes: Change for affected stakeholders that is plausibly associated with the products/services of the enterprise.

Stakeholder: Sometimes referred to as 'beneficiary'; the person(s) or ecosystem(s) that derive advantages from an investment, such as clients, employees, suppliers, etc.

Value chain: The set of actors and activities that brings a basic agricultural product from production in the field to final consumption, where value can be added at each stage of the process. Stages of the value chain include: Input supply, production, processing & manufacturing, distribution, export, and ancillary services. – *Source: FAO*

STAGES OF BUSINESS:

Seed/Start-up: Business idea exists, but little has been established operationally; pre-revenue.

Venture: Operations are established, and company may or may not be generating revenues but does not yet have positive EBITDA.

Growth: Company has positive EBITDA and is growing.

Mature: Company has stabilized at scale and is operating profitably

STAGES OF VALUE CHAIN:

Input supply: Supply of agricultural inputs, such as seed, fertilizer, and machinery, needed for production.

Production: Process of farming and/or cultivation.

Processing: Transformation of raw harvested goods into agricultural products.

Distribution: Process of delivering agricultural products to various stakeholders.

Export: Agricultural products delivered and sold to another country.

PRODUCT/SERVICE DESCRIPTIONS:

Agricultural financial services: Credit, savings, insurance, or other financial products/services.

Agricultural technology: Digital services, information-sharing platforms, climate smart products, among others.

Outgrower schemes & offtake agreements: A binding agreements between buyers and farm producers, through which a firm ensures its supply of agricultural products from the farmer or farmer cooperative; also known as contract farming.

Agricultural inputs: Inputs needed for farming, such as seed, fertilizer, machinery.

Agroecological farming: Approach that applies ecological and social concepts and principles to the design and management of food and agricultural systems to create sustainable, fair food systems that optimize the natural ecosystems.

TYPES OF IMPACT RISK

These definitions come from the Impact Management Project (IMP) Glossary.

Evidence risk: The probability that the evidence on which the strategy is based is faulty and so the expected impact will not occur.

External risk: The probability that external factors disrupt the ability to deliver the expected impact.

Execution risk: The probability that the activities are not delivered as planned and do not result in the desired outputs.

Stakeholder participation risk: The probability that the expectations or experiences of stakeholders are misunderstood or not taken into account, reducing their participation or uptake.

Drop-off risk: The probability that the expected impact does not endure.

Unexpected impact risk: The probability that significant unexpected positive and negative impact may be experienced by people and the planet.

Efficiency risk: The probability that the expected impact could have been achieved with fewer resources or at a lower cost.

Contribution risk: The risk that an investment leads to the same or worse effect compared to what would otherwise have occurred.

APPENDIX 4:

Data sources

External threshold data used to inform analysis:

To estimate area of agricultural land by country: Food and Agriculture Organization, FAOSTAT Land Use, (Food and Agriculture Organization, 2016 – 2019).

To estimate area of arable land by country: Food and Agriculture Organization, FAOSTAT Land Use, (Food and Agriculture Organization, 2016 – 2019).

To estimate total population: United Nations Population Division, (UN Department of Economic and Social Affairs, 2019).

To estimate individuals living below the national poverty line in the countries in which investees operate: World Bank, Poverty Headcount Ratio at National Poverty Lines (% of population), (World Bank, 2016 – 2019).

To estimate individuals living below USD 1.90 a day: World Bank, Poverty Headcount Ratio at \$1.90 a day (2011 PPP; % of population), (World Bank, 2016 – 2018).

To estimate individuals living in rural areas: World Bank, Rural Population (% of total population), (World Bank, 2016 – 2019).

To estimate total labor force: World Bank, Labor Force, Total, (World Bank, 2019).

To estimate total number of unemployed individuals: World Bank, Unemployment Total (% of total labor force; modeled ILO estimate), (World Bank, 2010 – 2019).

To estimate total size of agricultural labor force: World Bank, Employment in Agriculture (% of total employment; modeled ILO estimate), (World Bank, 1991 – 2019).

APPENDIX 5:

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This report is a publication of the Global Impact Investing Network (GIIN), the leading global champion of impact investing, dedicated to increasing the scale and effectiveness of impact investing around the world. The GIIN builds critical market infrastructure and supports activities, education, and research that help accelerate the development of a coherent impact investing industry.

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