

Enveritas

An analysis of the role of middlemen in coffee supply chains **Uganda Country Report**

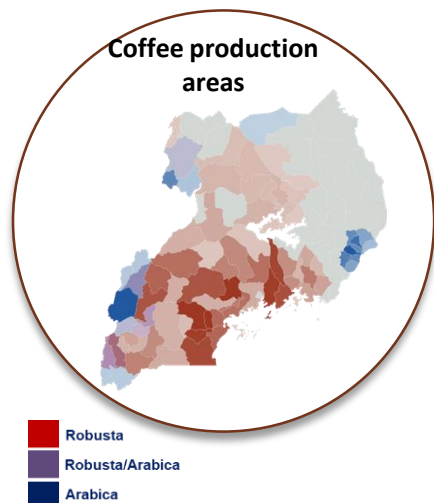
Prepared for:
IDH - The Sustainable Trade Initiative

February 2020



- **Country overview and mapping**
 - Middlemen roles and services
 - Income and sources of capital
 - Business outlook and SWOT analysis
 - Opportunities for engaging middlemen in sector initiatives
 - Methodology

COUNTRY PROFILE: UGANDA



| Indicator | Value | Quality of existing data | Remarks |
|---|--|--------------------------|--|
| Production volume (4-year avg) | 4.7m bags | | Small domestic market, some cross-border smuggling into Uganda |
| Production trend (10-year CAGR) | +2.6% p.a. | | Sector recovered after production drop in the early 2000s; increased government focus on coffee (seedlings program) |
| Coffee types | 78% Robusta 22% Arabica | | Arabica production focused on the highlands in the East and West; Arabica grows faster than Robusta |
| Smallholder production share | 99% | | Sector dominated by smallholder farms |
| Number of smallholder farms (Enveritas estimate) | 1.8M | | 1.3M Robusta and 0.5M Arabica farms |
| Avg. smallholder coffee farm size (Enveritas estimate) | Robusta: 0.3 ha Arabica: 0.32 ha | | Low tree density due to intercropping with bananas and other food crops; large share of farms with less than 100 trees |
| Avg. smallholder productivity (Enveritas estimate) | Robusta: 420 kg/ha Arabica: 302 kg/ha | | Official estimates quote yields of 650kg/ha for Robusta and 540 kg/ha for Arabica |

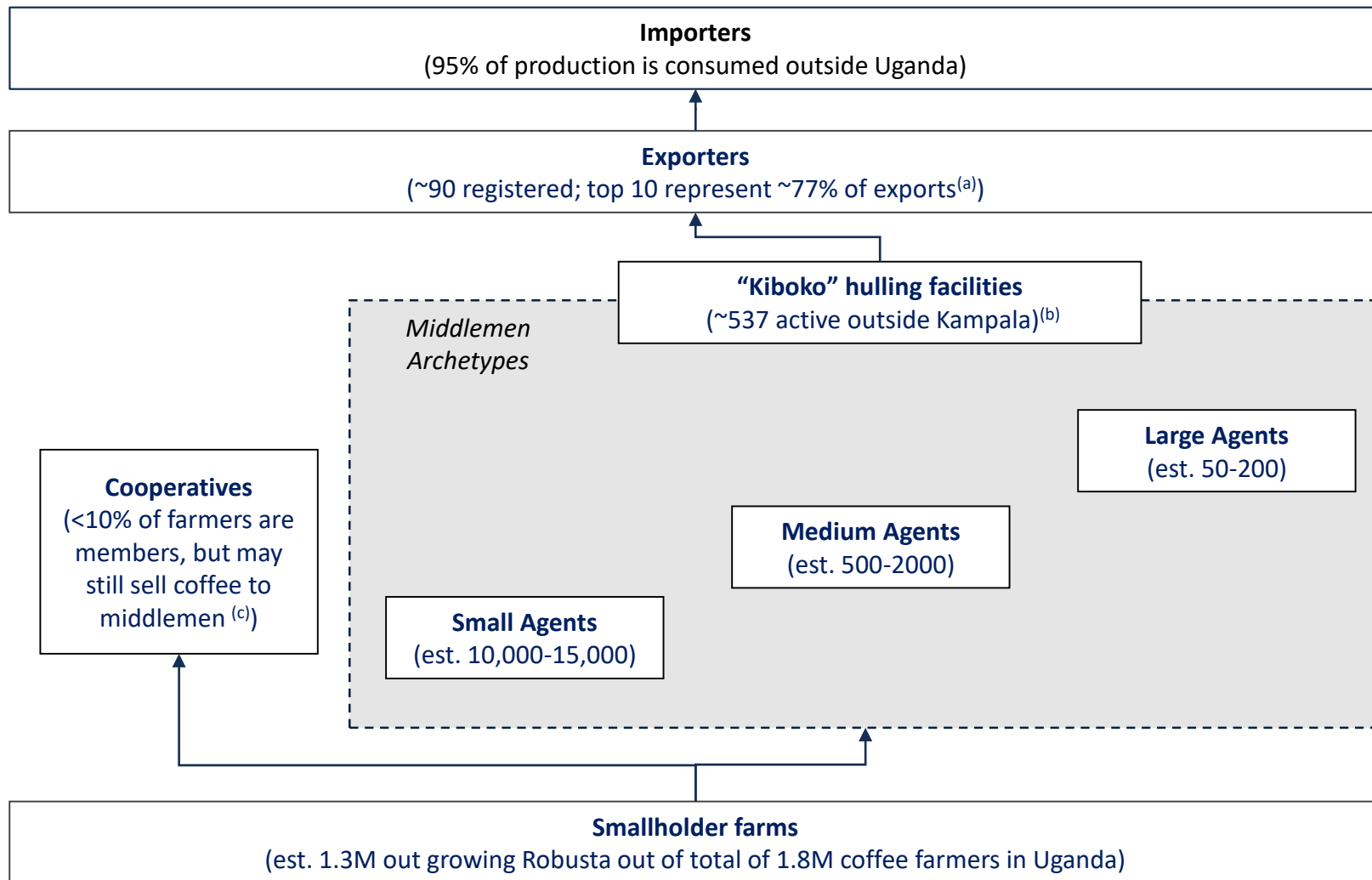
- Note:
- All volume in this report are cited in green bean equivalent (GBE) unless otherwise specified
 - Exchange rate used for this report is US\$1 = UGX3677

Source: Enveritas Global Farm Study; USDA production estimates (2017-2020)

UGANDA HAS MORE THAN 10,000 MIDDLEMEN AND THEY HANDLE NEARLY ALL THE COUNTRY'S ROBUSTA



Robusta Value Chain in Uganda (Robusta)



WE HAVE DEFINED MIDDLEMEN ARCHETYPES BASED ON VOLUME (SCALE) AND LEVEL OF SOPHISTICATION



Small Agents

- **Volume: ~15 tons/year**
- Have bicycle or motorbikes (also referred to as “Mobile Collectors”)
- Buy from farmers and other small agents
- Buy primarily in cherry or “kiboko” (dry-cherry) form and sell in kiboko or “FAQ” form
- Usually do not own hulling facilities; if hulling, they pay for the service

Medium Agents

- **Volume: ~50 tons/year**
- Have motorcycle or access to truck
- Buy from other (small) agents or larger farmers
- Buy primarily in “kiboko” (dry-cherry) form and sell in “FAQ” (green) form
- Usually pay for hulling services but some may own or lease small-scale hulling facilities

Large Agents

- **Volume: >150 tons/year**
- Have truck or access to truck (rental basis)
- Buy mostly from other (small and medium) agents
- Buy primarily in “kiboko” (dry-cherry) form and sell in “FAQ” (green) form
- Usually own or rent multiple hulling facilities

Source: Stakeholder interviews and Enveritas middlemen surveys

WHILE LARGE AGENTS MAY HAVE THE MOST RELATIVE INFLUENCE, POWER IS DIFFUSED ACROSS THE CHAIN



| | |
|----------|---|
| Strong | 3 |
| Moderate | 2 |
| Weak | 1 |

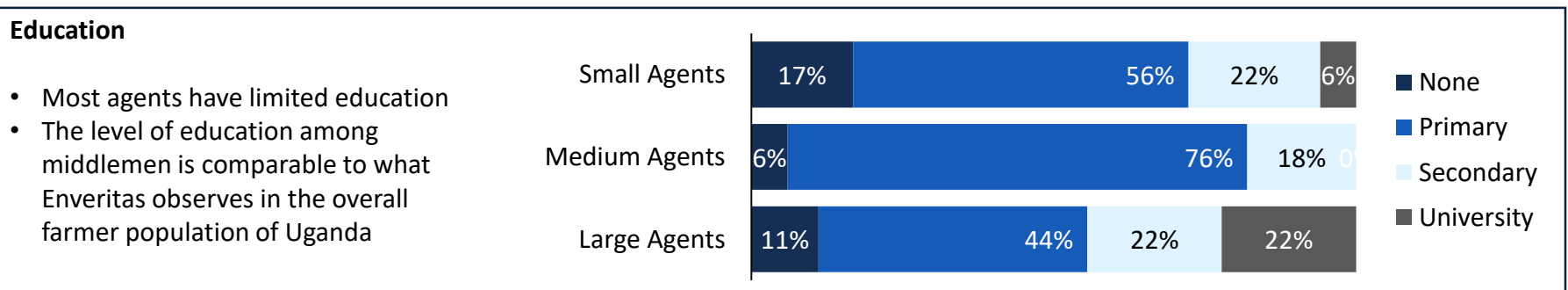
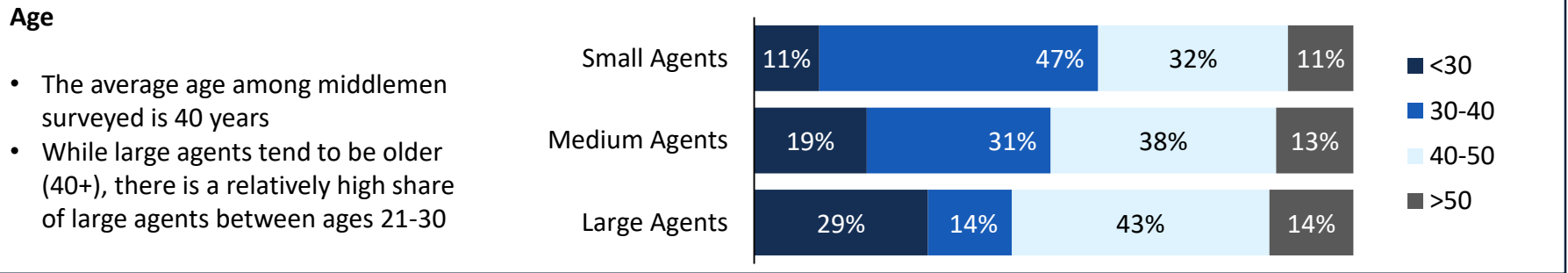
Assessment of factors contributing to middlemen and other actors' influence in the supply chain

Each factor is assessed on a 1 to 3 scale and the overall score is averaged

| Actor | Sources of Influence | Capital | Farmer Services | Proximity to farmers | Access to processing Infrastructure | Role in influencing local price trends | Replaceability | Operating Economy | Average "Score" |
|---|--|--|--|----------------------|--|---|---|-------------------|-----------------|
| Small Agents / Mobile Collectors | Relationship with farmers, transportation, financial advances to farmers | Personal savings and/or short-term arrangements with agents | Short-term financing, some input provision | Very close | Don't process or pay for hulling | Primarily quality signals (or lack thereof) | Few barriers to entry | Informal | 1.6 |
| Medium Agents | Relationship with farmers, sourcing network and loans, transportation | Mostly savings and arrangements with agents, but may have some loans | Short-term financing, some input provision | Very close | Pay for use or operate small-scale hulling | Quality and short-term price signals | Longer history / track record | Informal | 2.0 |
| Large Agents | Sourcing network, Larger transportation, processing infrastructure | Business assets, arrangements with exporters and agents, loans | Less common at farmer level | Variable | Hulling; some sorting and grading | Price, quality, and stocks / availability | Deeper pockets and connections | Semi-formal | 2.4 |
| "Kiboko" Hulling Facilities | Key processing infrastructure; Direct buying apparatus and/or central transaction points | Capital equipment (typically fully depreciated) | Short-term financing | Variable | Own / operate hulling machines | None; service provider | Established infrastructure, but otherwise few barriers to entry | Semi-formal | 1.9 |
| Brokers | Direct agents and buyers to sources of coffee, often for small fee | None utilized directly | None provided directly | Variable | None access directly | Knowledge of price and availability | Deep connections | Informal | 1.4 |

Source: Enveritas analysis based on stakeholder and expert interviews in Uganda

A “MODAL MIDDLEMAN” IS A 40-YEAR-OLD MALE WITH PRIMARY SCHOOL EDUCATION

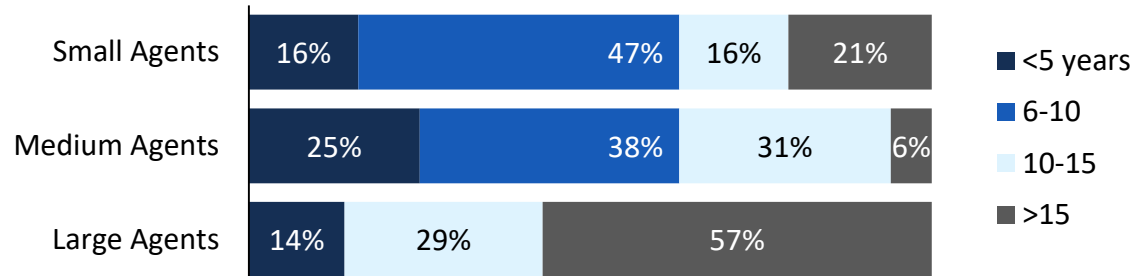


AGENTS USUALLY HAVE 10+ YEARS' EXPERIENCE, GROW THEIR OWN COFFEE, AND GENERATE INCOME FROM OTHER CROPS



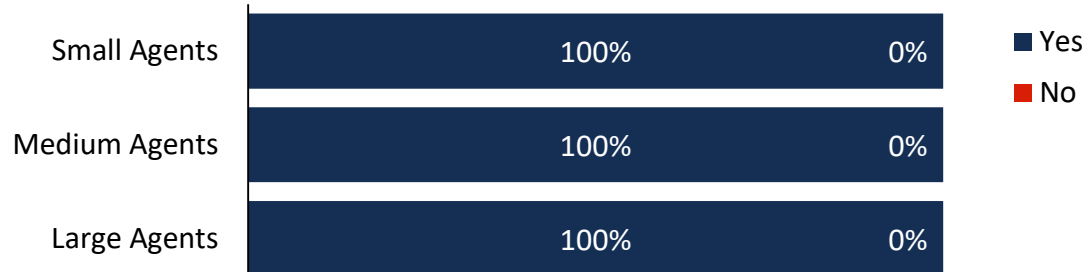
Years of Experience

- The average middleman has 11 years experience
- Most say they are active every season, though price fluctuations and the availability of capital can cause them to miss seasons



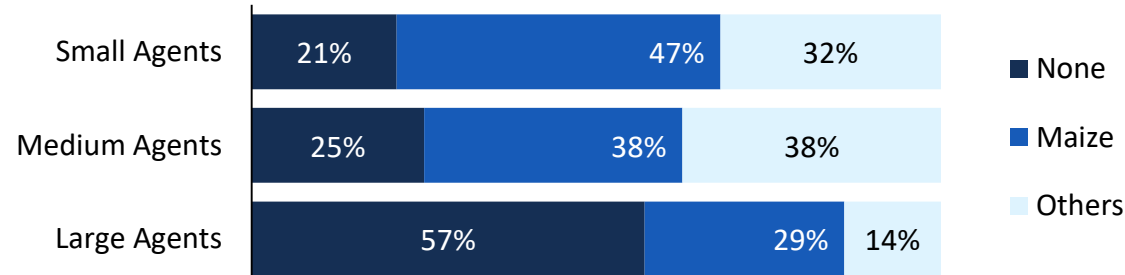
Also a Farmer?

- All middlemen surveyed are also coffee farmers



Other Crops Traded

- Smaller middlemen report trading other crops but deriving most of their income from coffee
- Agents tend to be more crop-specific as they go from small to large



Source: Enveritas middlemen surveys

MIDDLEMEN TEND TO BE INDEPENDENT OPERATORS, DOING BUSINESS OVER THE PHONE RATHER THAN ONLINE



Associations

- Of interviewees, 26% had knowledge of associations or middlemen groups and 8% reported membership in such associations
- Of those that had such awareness, they cited groups organized by exporters (e.g., Kyagalanyi, Ibero), rural SACCOs, and regional farmer groups

Confidence in business

- On average, middlemen ranked their confidence levels at 2.7 (0 = no confidence, 5 = very confident)
- The most confident cited improving roads and infrastructure for transportation and improvements in farmer productivity
- The least confident cited fears of proposed new legislation intended to register and more closely regulate middlemen. Others cited increasing competition from a growing number of new entrants

Middleman prospects

- 91% of middlemen want their children to continue in the coffee trading business **and** believed they would participate in the trade
- Current confidence in business prospects did not appear to influence view if children should join the trade. Middlemen often run their operations as family businesses

Technology

- Almost all middlemen interviewed cited using mobile phones to communicate by phone call or text with buyers and sellers. Mobile phones are the go-to-source to communicate
- ~88% of coffee farming households in Uganda own or have access to a phone (2019/20)
- No middleman cited using computers in their business. 26% of those interviewed use a mobile phone with internet capability

Source: Enveritas farmer and middlemen surveys



- Country overview and mapping
- **Middlemen roles and services**
- Income and sources of capital
- Business outlook and SWOT analysis
- Opportunities for engaging middlemen in sector initiatives
- Methodology

MIDDLEMEN USE MOTORBIKES AS THE PRIMARY MEANS OF TRANSPORT FOR BUSINESS OPERATIONS



- 77% of middlemen reported using a motorbike, valued at an average of \$564
- Widely used by certain small agents / mobile collectors, and medium agents
- 12% of those using motorbikes report also owning a truck or bicycle
- 12% of middlemen use bicycles, at an average reported asset value of \$22
- Those who use only bicycles to transport coffee cover shorter distances, at an average of 4km, and source from only 32 farmers on average
- 16% of middlemen interviewed use a truck with an average reported value of \$13,145
- Trucks enable middleman to 1) purchase volumes from a larger and more diverse geographic network and 2) have the option to transport volumes directly to exporters, who are often in Kampala

Other findings

- Middlemen transport coffee an average distance of **39km** (min 0.5km, max 160km)
- All middlemen reported owning at least 1 vehicle or mode of transportation to assist in transporting coffee
- ~20% reported that proximity to or lack of good road networks as a major strength or weakness of their business
- ~15% cited their existing vehicle(s) as a weakness in their business

Source: Enveritas middlemen surveys

MOST MIDDLEMEN MAKE A VISUAL QUALITY SCREEN OF THE COFFEE THEY BUY AND WILL STORE IT FOR TWO WEEKS



Quality Control

- 98% of those interviewed report doing some form of quality check before purchasing
 - 4% report running screen tests or using a moisture meter
 - 96% report visually or sensually surveying the volumes before purchase (biting, breaking open)
- All middlemen interviewed report attempting to purchase all volumes offered
 - If any coffee appears to have defects (molding, breakages, premature), middleman will negotiate to pay for a sub-set of the total volume, thus instituting a small quality penalty
- While 74% report to offer suppliers higher prices for better quality at some point in the past, this does not appear to occur frequently. Middleman report offering a one-off bonus payment or a very small price increase (~2-7%)

Processing

- 90% of middlemen buying cherry or “kiboko” process coffee by hulling before selling
- Only 5% report segregating their lots for quality and 10% report cleaning the coffee before selling
- Middleman report quality separation or further cleaning volumes only if an important buyer asks

Storage

- 98% of middlemen report storing coffee for some amount of time before a final sale
- On average, middlemen report storing coffee for 2 weeks time
- Majority of middlemen store FAQ at hulling stations for 1-2 weeks after processing

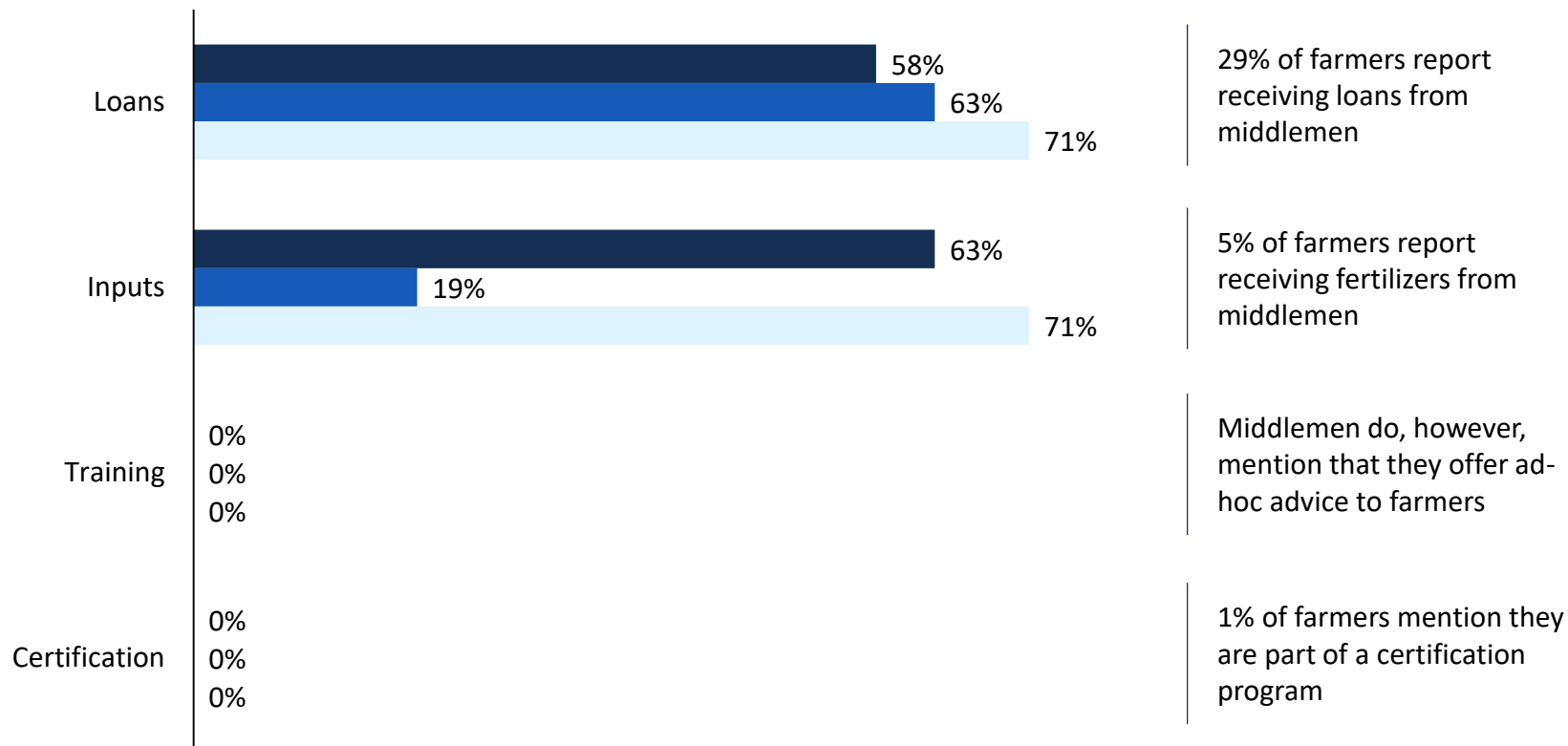
Source: Enveritas middlemen surveys

MIDDLEMEN OFFER LOANS AND INPUTS TO FARMERS, BUT NOT CONSISTENTLY TO ALL FARMERS THEY BUY FROM



- Small
- Medium
- Large

Services middlemen report offering to farmers
% of middlemen surveyed



Source: Enveritas farmer and middlemen surveys

MIDDLEMEN PROVIDE INFORMAL SHORT-TERM LOANS, TIMED 2 WEEKS TO 3 MONTHS BEFORE HARVEST



| | Small Agents | Medium Agents | Large Agents |
|---|--|--|--|
| % of agents willing to give loans to sellers | 63% | 63% | 71% |
| Est. % of sellers who get loans (according to agents) | 15% | 20% | 30% |
| Reasons for the loans | Coffee / personal (school fees, medical, basic living) | Coffee / personal (school fees, medical, basic living) | Coffee / personal (school fees, medical, basic living) |
| Avg. loan size quoted (UGX) | 600,000 (~\$163) | 200,000 (~\$54) | 2,000,000 (~\$544) |
| Typical form of loan | 100% cash | 100% cash | 100% cash |
| Interest rates agents say they provide to sellers | 80% charge interest: ~4% per month / ~7% per year | 0% charged cash interest | 67% charged cash interest: 100 UGX per kg or ~7% per month |
| Risks | Crop Failure, loan default, price volatility, breaking agreements, selling to other buyers | | |
| USP to farmers | Loan based on relationship / perceived trustworthiness; Simple procedures | | |
| Loan tenure | Min: 2 weeks, Max: 1 year | | |
| Other comments | Middlemen seek to offer loans 2 weeks – 3 months before farmers harvest. Middlemen closely monitor farmers to ensure volume repayment and often dictate harvest timing. Middlemen often offer small loans to other middlemen to establish buying relationships | | |

Source: Enveritas middlemen surveys



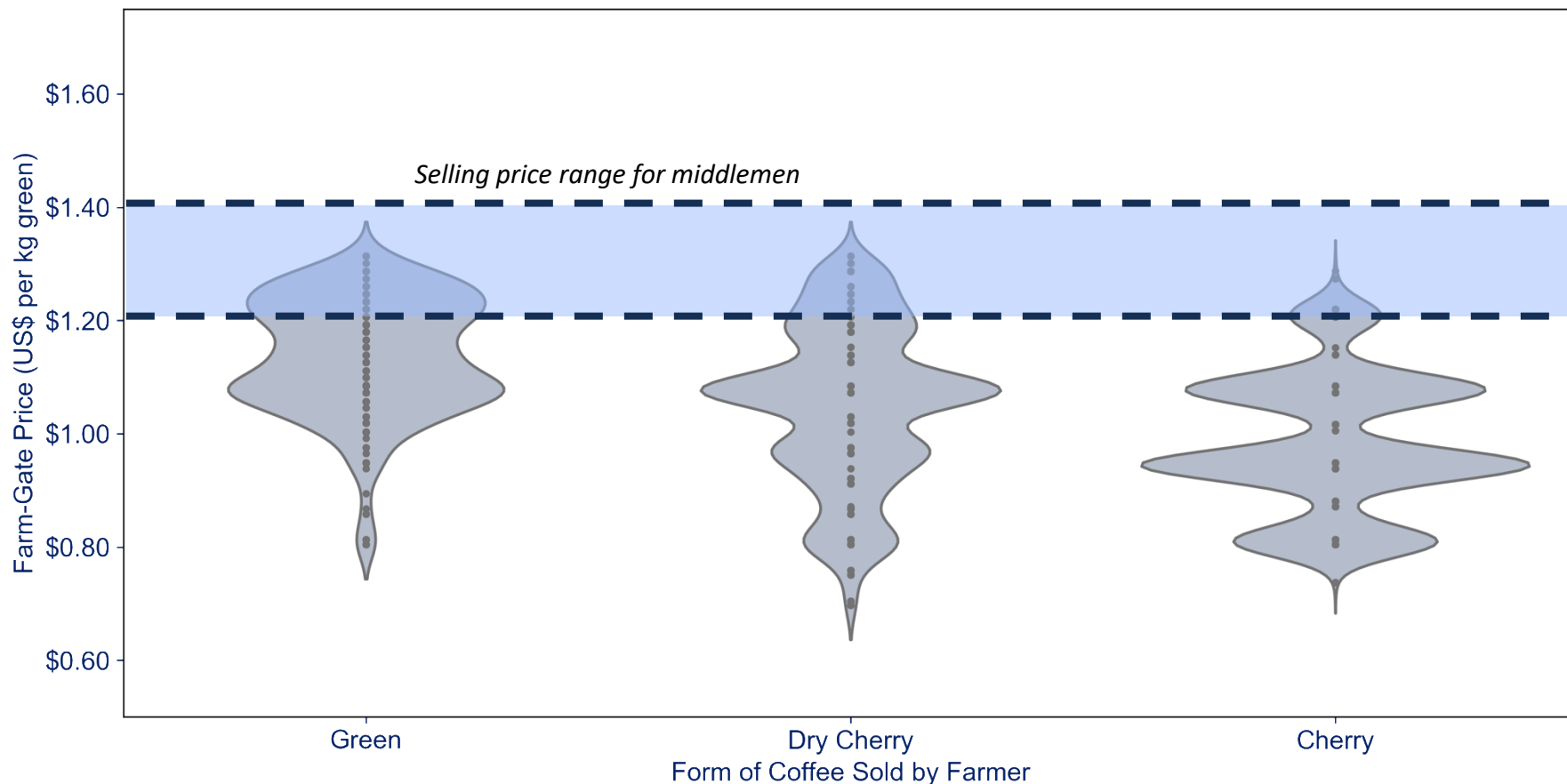
- Country overview and mapping
- Middlemen roles and services
- **Income and sources of capital**
- Business outlook and SWOT analysis
- Opportunities for engaging middlemen in sector initiatives
- Methodology

MIDDLEMEN BUY COFFEE AT AN AVERAGE PRICE OF ~\$1.07/KG AND SELL IT FOR ~\$1.30/KG



Comparison of purchase prices (at farm-gate) and sales price for middlemen

All values in US\$ per kg green bean equivalent for crop year 2019



Source: Enveritas farmer and middlemen surveys

MIDDLEMEN RELY ON A COMBINATION OF PERSONAL SAVINGS AND SMALL LOANS FOR WORKING CAPITAL



Main findings

- **86%** of middlemen report they access loans through banks, microfinance institutions or from other middleman
- **93%** of middlemen report using some of their own personal savings to trade
- **67%** report receiving loans from traders, with all archetypes accessing capital from fellow middleman
- Middlemen report loans from other traders offer good terms, often do not carry interest, offer buying relationships and do not require collateral terms
- Bank loans typically require more formal payment terms and collateral
- Middlemen report knowledge of traditional bank loans from **Centenary Bank**, which specializes in rural agriculture loans with collateral based on land, motorcycles and vehicles and livestock
- Other mentions **local farmers' SACCOs**, **farmer organizations**, and the **Uganda Microfinance Support Centre**

Institutions mentioned by middlemen



Source: Enveritas middlemen surveys



- Country overview and mapping
- Middlemen roles and services
- Income and sources of capital
- **Business outlook and SWOT analysis**
- Opportunities for engaging middlemen in sector initiatives
- Methodology

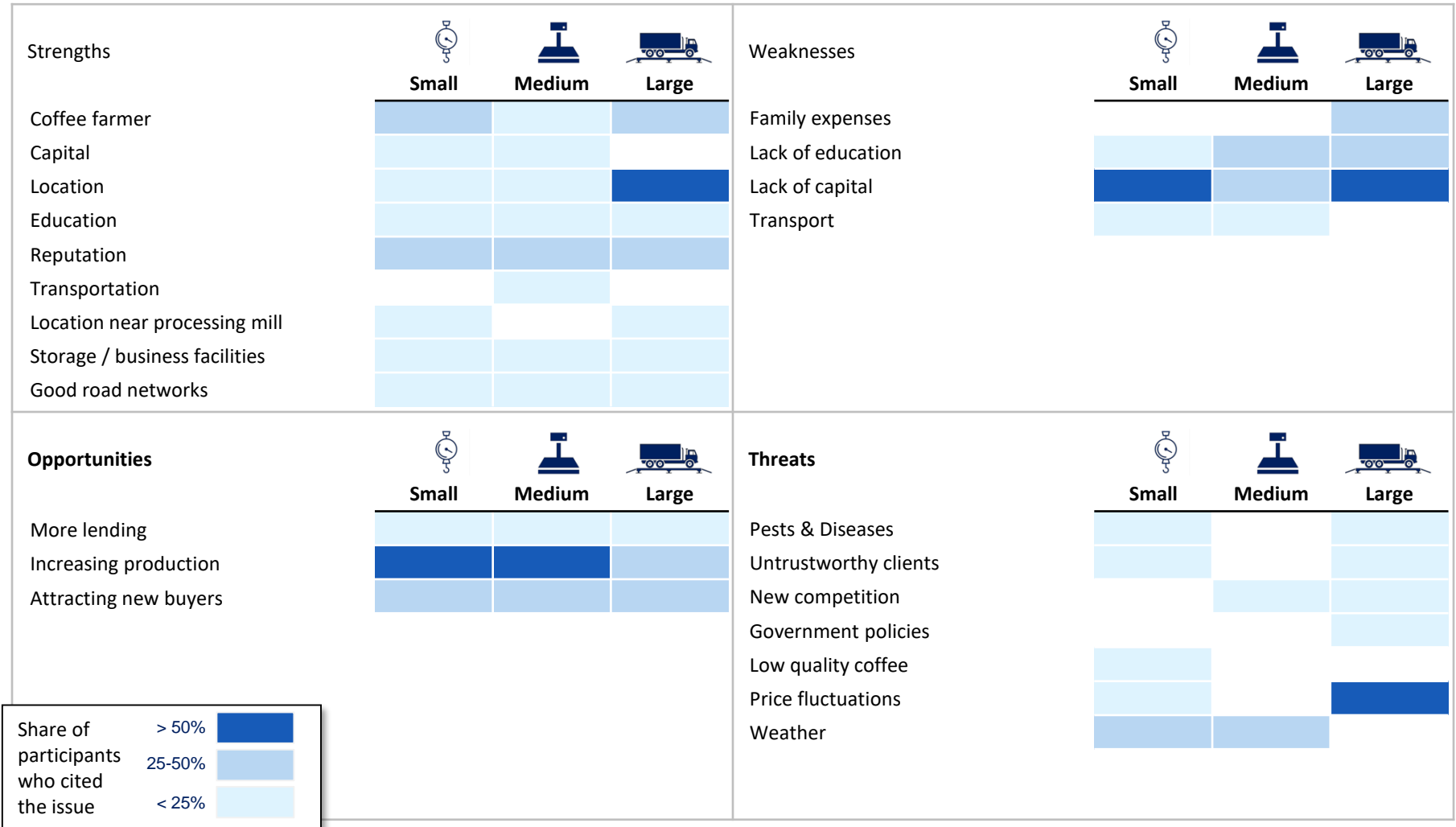
ALL MIDDLEMEN REPORT BEING PROFITABLE, AND MOST ALSO SAW AN INCREASE IN VOLUMES THIS PAST YEAR



| | Small Agents | | | Medium Agents | | | Large Agents | | |
|---------------------------------------|--|------------------------|---------------|--|------------------------|---------------|--|------------------------|---------------|
| YOY coffee volume traded | Increasing 63% | Decreasing 37% | Neutral 0% | Increasing 63% | Decreasing 38% | Neutral 0% | Increasing 57% | Decreasing 43% | Neutral 0% |
| Profits (Coffee) | Profitable 100% | Not Profitable 0% | Neutral 0% | Profitable 100% | Not Profitable 0% | Neutral 0% | Profitable 100% | Not Profitable 0% | Neutral 0% |
| Most profitable service | Coffee Trading 100% | Fertilizers 0% | Others 0% | Coffee Trading 100% | Fertilizers 0% | Others 0% | Coffee Trading 100% | Fertilizers 0% | Others 0% |
| Other major sources of income | Coffee Farming 84% | Farming (Other) 11% | Other 5% | Coffee Farming 87% | Farming (Other) 13% | Other 0% | Coffee Farming 71% | Farming (Other) 14% | Other 14% |
| Major expenses | Labor; Interest on capital; Transportation; Storage; Processing | | | Labor; Interest on capital; Transportation; Storage; Processing | | | Labor; Interest on capital; Transportation Storage; Processing | | |
| Barriers to increase MM income | Price Volatility; Bad crop/Crop failure; Competition & Loan defaults | | | Price Volatility; Competition; Loan defaults & Bad crop/Crop failure | | | Price Volatility; Competition; & Loan defaults | | |

Source: Enveritas middlemen surveys

THE SWOT ANALYSIS REVEALS COMMON CONCERNS ABOUT CAPITAL, PRICES, AND PRODUCTIVITY



Source: Enveritas middlemen surveys



- Country overview and mapping
- Middlemen roles and services
- Income and sources of capital
- Business outlook and SWOT analysis
- **Opportunities for engaging middlemen in sector initiatives**
- Methodology

WE'VE IDENTIFIED SIX IDEAS TO HELP SOLVE CURRENT CHALLENGES OR TO CHANGE BUSINESS AS USUAL

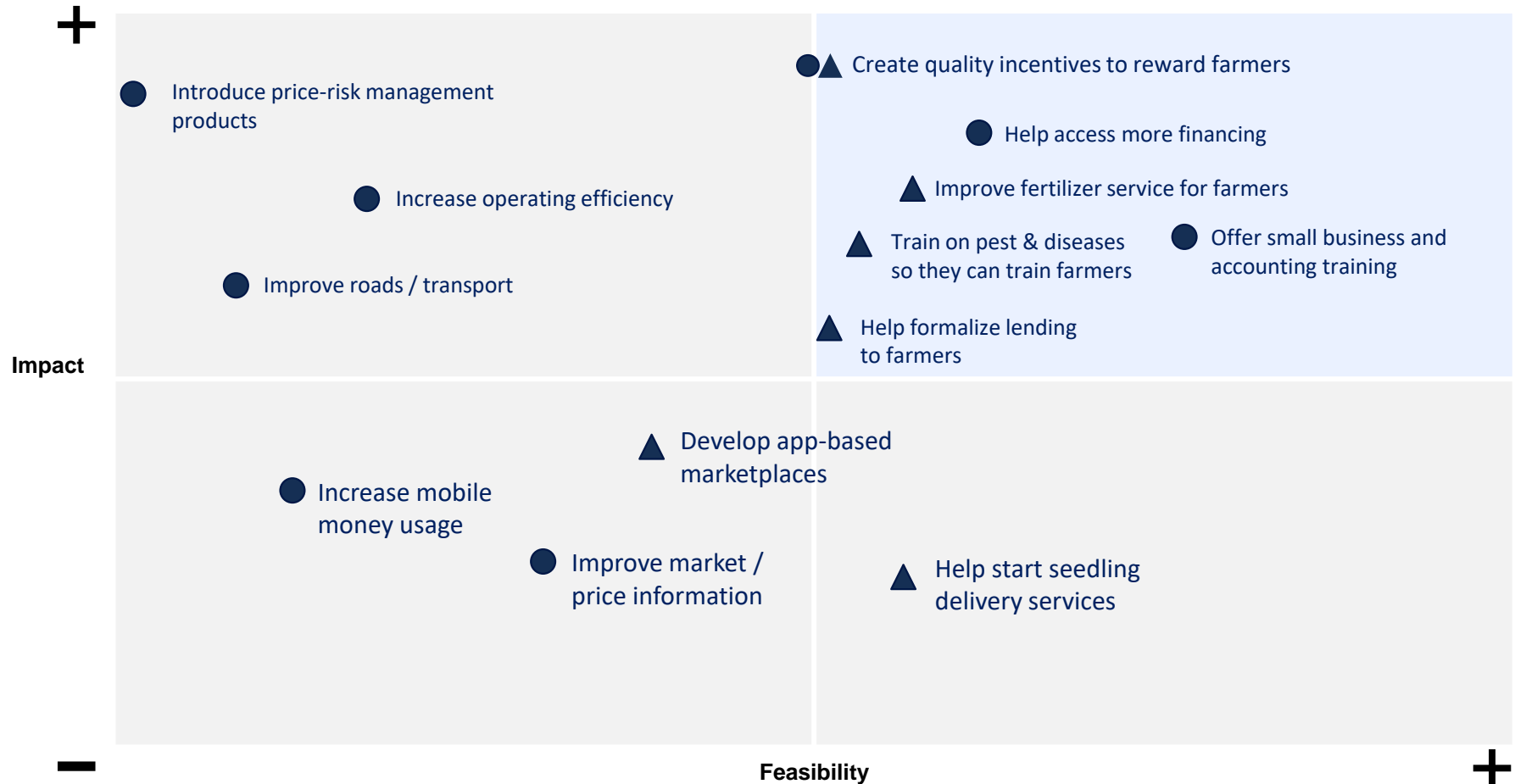


Selected opportunities to support Uganda's middlemen

Each opportunity was evaluated for potential Impact and Feasibility

● Solve current business challenge

▲ Change business as usual



Source: Stakeholder interviews and Enveritas middlemen surveys

(1) HELP FORMALIZE LENDING TO FARMERS



Concept Summary

- Partner with local banks, SACCO's or farmer organizations to offer coffee farmers access to formal financial services that meet their needs
- Middlemen (particularly small and medium archetypes) are trained and serve as banking agents, rather than issuing loans directly and receiving coffee as payment

Type of Opportunity

- Change to business as usual

Current Indicators

- 67% of middlemen offer loans to farmers
- 42% of small and medium agents extend loans without interest terms in exchange for coffee
- 29% of farmers have loans

Design Considerations

- Loan use: Farming needs (labor, inputs) / some for personal expenses
- Loan size: varies, from 150k to 6 million UGX (~\$40 to ~1,630)
- Interest rate: Dependent if cash or coffee. 0.5%-1.5% cash rate.
- Payback: Seasonal, depending on harvest timing / 3-12 months in cash or coffee
- Creditworthiness: based on size of production, land holdings, livestock; no paperwork or credit history required

Envisioned Outcomes

- Improved creditworthiness assessments
- Reduced informal selling practices and cash advances to farmers, often for personal expenses, in exchange for coffee
- Reduced default risk
- Increased access to formal financial services

Source: Stakeholder interviews and Enveritas middlemen surveys

(2) BUSINESS AND FINANCE TRAINING FOR MIDDLEMEN



Concept Summary

- Train middlemen on business and finance
- Partner with local organizations or training institutes to design and deliver training
- Deliver training outside of harvest season; recruit via exporter networks for more sophisticated or larger middlemen
- Recruit smaller agents through mill stations and pilot dissemination through select mill managers

Type of Opportunity

- Solve current business challenge

Current Indicators

- 64% of middlemen only completed primary education
- 31% of middlemen cite concerns on lack of education or business skills
- 40% of middlemen found price volatility or lack of understanding of the coffee market as challenges

Design Considerations

- Middlemen's skill gaps:
- Basic record keeping and money management (SA) & (MA)
- Profitability tracking (SA) & (MA) & (LA)
- Value chain understanding / coffee production trends (SA) & (MA)

Envisioned Outcomes

- Improved money management
- Better tracking of volumes, price and profitability throughout supply chain closer to the farmer
- Business growth

Middlemen archetypes: SA= Small, MA= Medium, LA= Large

Source: Stakeholder interviews and Enveritas middlemen surveys

(3) INCREASE AVAILABILITY OF CAPITAL FOR MIDDLEMEN BY STRENGTHENING LENDING ORGANIZATIONS



Concept Summary

- Assess capability and availability of non-bank loan providers to middlemen through Savings and Credit Cooperatives Organizations (SACCOs) and Community Savings and Credit Groups (CSCGs)
- Partner and support select organizations in order to improve management, governance, accountability and performance, while targeting membership expansion
- Pilot additional loan and programming targeted at supporting middlemen

Type of Opportunity

- Solve current business challenge

Current Indicators

- 57% of middlemen cite concerns about lack of capital or challenges obtaining capital
- 100% of middlemen also operate as coffee farmers, many with similar financial needs and challenges

Design Considerations

- Middlemen's loan gap: Smaller collectors and small and medium agents tied to capital from other middlemen, often with informal terms

Envisioned Outcomes

- Increased controls and accountability at existing institutions offering financial services to smallholder farmers and middlemen
- Increased membership and capital offerings for middlemen

Source: Stakeholder interviews and Enveritas middlemen surveys

(4) IMPROVE FERTILIZER OFFERING FOR FARMERS



Concept Summary

- Improve the efficiency of fertilizer services that middlemen offer farmers
- Train middlemen (particularly small and medium archetypes) to assess farms for the appropriate type, dose, and application of fertilizer
- Pair with soil testing service, to offer more targeted recommendations and instruction on usage

Type of Opportunity

- Change business as usual

Current Indicators

- 5% of farmers use inorganic fertilizer
- 47% of middlemen claim to link sellers to inputs such as fertilizer
- <1% of farmers use soil testing

Design Considerations

- Drawbacks of current fertilizer services offered by middleman:
- Fertilizer sometimes offered directly but often linking middleman to potential dealers
- Farmers not advised on proper usage, brand and type and amounts needed

Envisioned Outcomes

- Improved soil quality and productivity
- Reduced sale of counterfeit fertilizer (which are often sold at steep discounts compared with genuine products)

Source: Stakeholder interviews and Enveritas middlemen surveys

(5) IMPROVE PEST AND DISEASE TRAINING OFFERING FOR FARMERS



Concept Summary

- Utilize middlemen farmer network and relationships to offer targeted and scripted guidance on Pest and Disease (P&D) recognition and basic management
- Recruit smaller and medium agents (farmer facing) through mill stations and pilot dissemination of materials and training through select mill managers
- Middlemen document and catalogue various P&D's in their buying network, identifying localities and P&D's for further intervention and support

Type of Opportunity

- Change business as usual

Current Indicators

- 64% of middlemen express concerns on pests and diseases
- 5% of farmers have received training, and good agricultural practice (GAP) adoption among Uganda's farmers remains low
- 84% of farmers experience challenges with Pests and Diseases, often unable properly diagnose and respond to the actual pest

Design Considerations

- Drawbacks of current training services offered by middlemen:
- Informal recommendations or connections to potential training offerings
- Middlemen likely not trained in proper knowledge sharing and GAP practices

Envisioned Outcomes

- Improved P&D management and recognition among farmers
- Improved quality of coffee sold and traded benefitting both farmers and traders

Source: Stakeholder interviews and Enveritas middlemen surveys

(6) QUALITY IMPROVEMENT FEEDBACK AND INCENTIVES



Concept Summary

- Create market distribution of moisture meters and screen size graders and instruct middlemen on usage
- Include feedback reports and receipts for middlemen to use on all farmer purchases
- Feedback reports feature UCDA published price differentials for screen size to incentivize selling and trading of high-quality coffee across entire value chain
- Pilot through select mill station buying networks to drive adoption and good practices

Type of Opportunity

- Change business as usual

Current Indicators

- 80% of farmers in Greater Masaka sell exclusively to middlemen
- 96% of middlemen report informally assessing coffee quality before purchasing
- ~15% of green coffee brought to large scale exporters not sold internationally due to size or quality defects

Design Considerations

- Uganda's quality challenges:
- Feedback: Farmers and middlemen selling networks generally do not receive feedback on quality of product
- Price: Price differentials often not received at lowest levels of supply chain, often due to lack of information among buyers and sellers
- Infrastructure: Middlemen and mills lack training and equipment to assess quality beyond informal visual inspection

Envisioned Outcomes

- Improved quality incentives and understanding of potential price premiums
- Improved price transparency

Source: Stakeholder interviews and Enveritas middlemen surveys



- Country overview and mapping
- Middlemen roles and services
- Income and sources of capital
- Business outlook and SWOT analysis
- Opportunities for engaging middlemen in sector initiatives

• Methodology



Scope of analysis

- A “middleman” is a colloquial term for a small-scale or informal trader that buys and sells raw agricultural products.
- The study focused on middlemen dynamics in the Robusta supply chains of Uganda.
- The study was carried out between October 2019 and January 2020, and all figures and market data should not be considered representative of future or past conditions.

Primary data collection

- Middlemen interviews were conducted in the Greater Masaka area (a major Robusta producing area, which includes Bukomansimbi, Kalungu, Lwengo, Masaka, Rakai, and Sembabule districts) in late 2019 / early 2020, with a sample size of 42 participants.
- Farmers interviews were conducted country-wide during both the 2018/19 and 2019/20 coffee harvests, with a sample size of over 30,000 farmer participants (combined years).

Secondary data collection

- The following sources provided reports that were referenced in this study: International Coffee Organisation (ICO), Uganda Coffee Development Authority (UCDA), IDH Sustainable Trade Initiative, and US Department of Agriculture (USDA).
- Interviews were conducted with representatives from the Ugandan coffee sector, including traders, exporters, farmer associations, and NGOs in November and December 2019.