

An analysis of the role of middlemen in coffee supply chains **Indonesia 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: INDONESIA



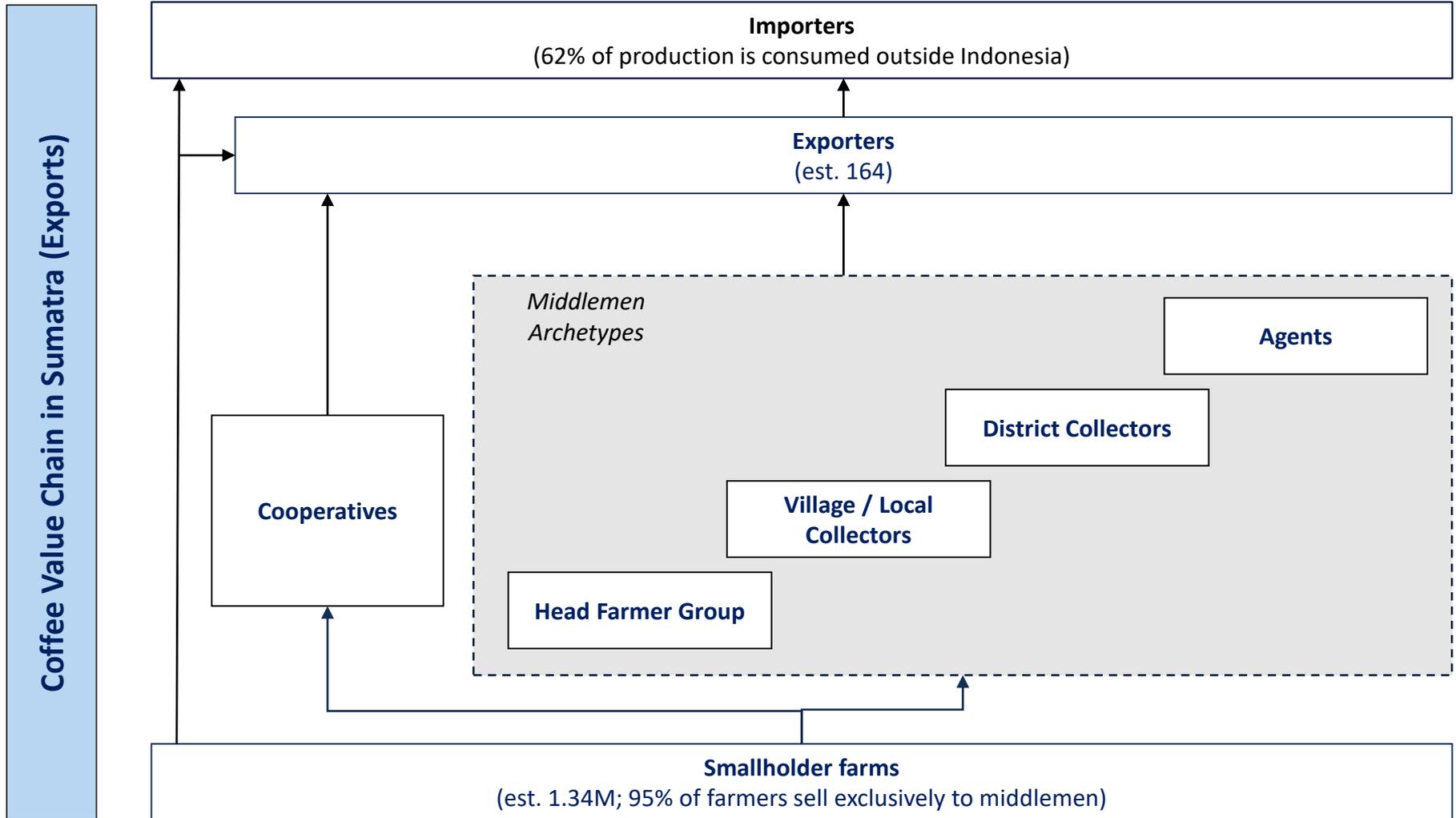
Indicator	Value	Quality of existing data	Remarks
Production volume (4-year avg)	10.4M bags ¹		Large domestic market, informal regional trade, vast growing areas across the archipelago
Production trend (10-year CAGR)	+5.7% p.a		Production increasing in Sumatra, especially Robusta, but stable or declining elsewhere
Coffee types	85% Robusta 15% Arabica		Some areas (and farms) have Robusta and Arabica; most Arabica is wet-hulled
Smallholder production share	99%		Small number of large estates, mostly in Java; largest farms are state-run
Number of smallholder farms (Enveritas estimate)	1,342,500		Most islands have some coffee farms, largest numbers are in Sumatra, while Java is losing coffee farms
Avg. smallholder coffee farm size (Enveritas estimate)	Robusta: 1.05 ha Arabica: 0.59 ha		Most farms have less than 2 ha coffee, some intercropping
Avg. smallholder productivity (Enveritas estimate)	Robusta: 540 kg/ha Arabica: 362 kg/ha		High variance in planting densities and husbandry practices, but generally lower productivity than elsewhere in Asia

Notes:

- All volume in this report are cited in green bean equivalent (GBE) unless otherwise specified
- Exchange rate used for this report is US\$1 = IDR13,717

Source: USDA, ICO, stakeholder interviews, literature review, Enveritas

INDONESIA HAS MORE THAN 4,000 MIDDLEMEN



WE HAVE DEFINED MIDDLEMEN ARCHETYPES BASED ON GEOGRAPHY AND LEVEL OF SOPHISTICATION



Village Collectors

Volume ≤ 100 tons/year

- Largest cohort among the archetypes; typically one or more per village
- Trade primarily in semi-dry parchment (gabah) and cherry in Northern Sumatra, and green beans in Southern Sumatra
- Buy directly from farmers and often sell to district collectors
- Have small storage facilities on site and are well-known to local farmers

District Collectors

Volume: **100-1,000 tons/year**

- Next largest cohort of middlemen after village collectors. Located in larger towns or sub-districts (kecamatan)
- Buy primarily gabah (semi-dry parchment), followed by cherry, and sell mostly green beans in Northern Sumatra. Sell only green beans in Southern Sumatra
- Buy mostly from village collectors but also from farmers
- May sell their beans directly to exporters or they may use an agent to shop around for the best price for a commission
- Have large processing and storage facilities

Agents

Volume: **>1,000 tons of GBE/year**

- Many agents operate in export centers i.e. Bandar Lampung and Medan or in main coffee trading centers, like Doloksanggul and Pagaralam
- Trade primarily green beans
- Some agents buy beans from district collectors and sell to exporters, while many collect samples from district collectors and find exporters for them for a commission

DISTRICT COLLECTORS HAVE THE MOST INFLUENCE ON COFFEE SUPPLY CHAINS



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

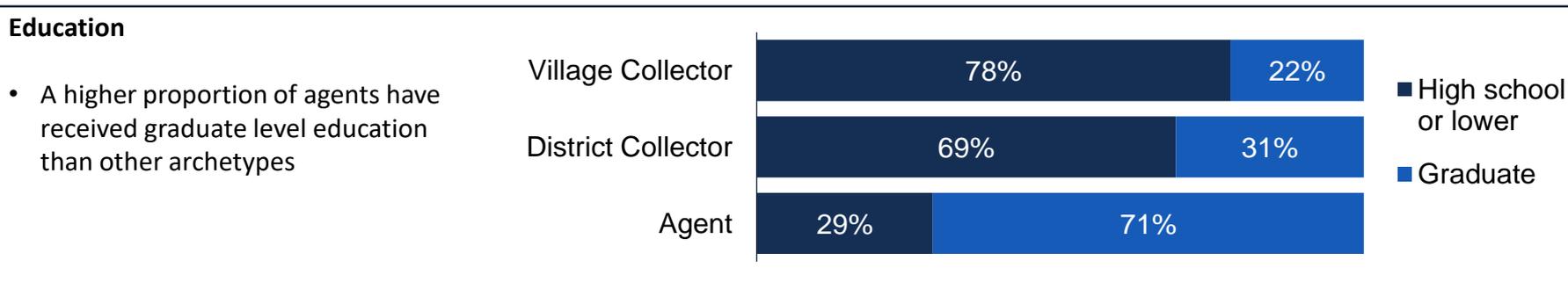
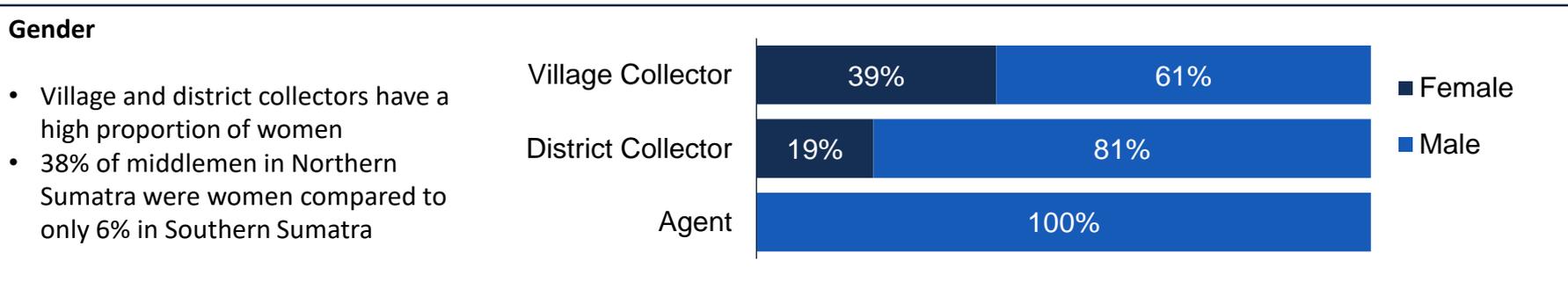
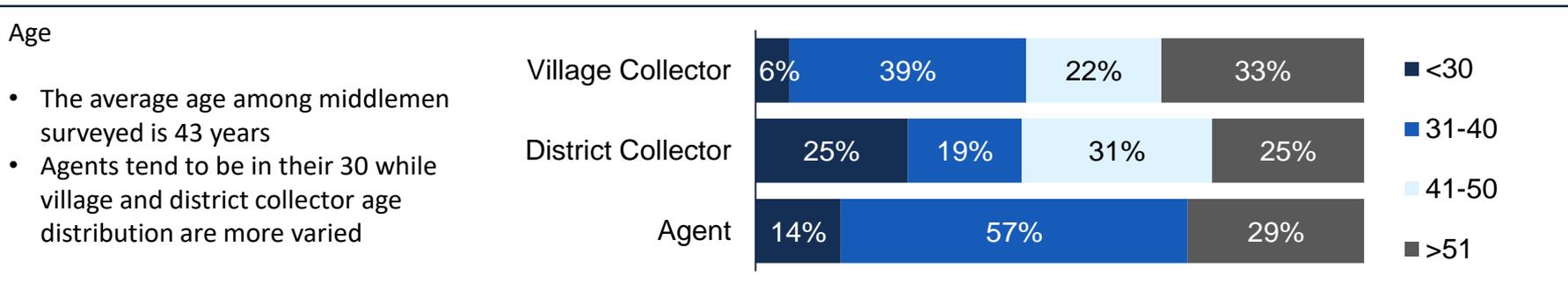
Each factor is assessed on a 1 to 3 scale and the overall score is averaged

Strong	3
Moderate	2
Weak	1

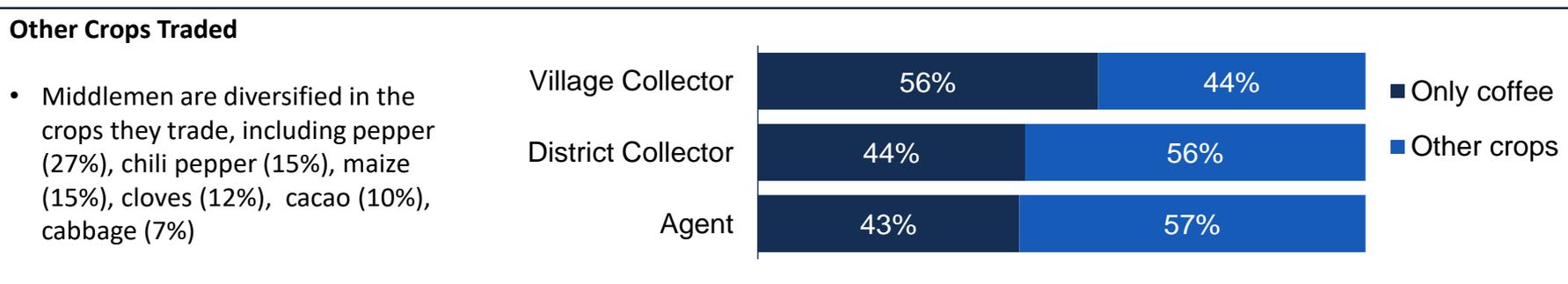
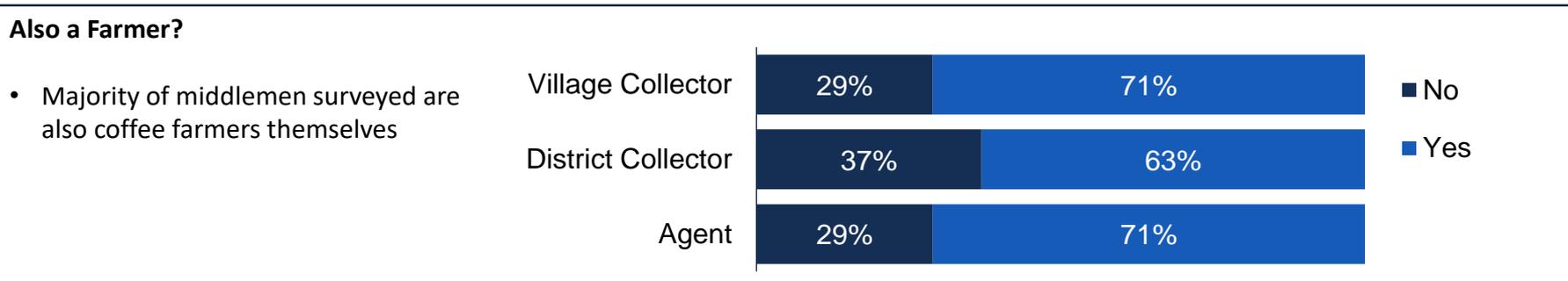
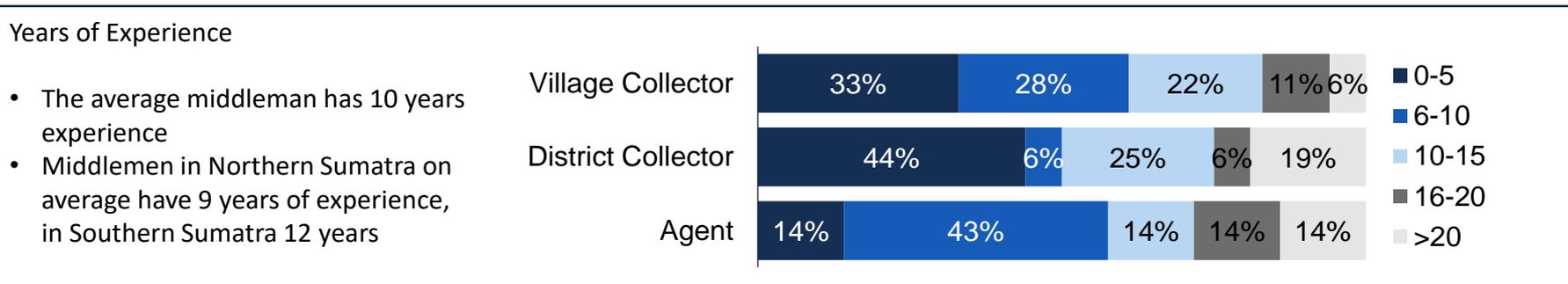
Actor	Sources of Influence	Capital	Farmer Services	Proximity to farmers	Access to processing Infrastructure	Role in influencing local price trends	Replaceability	Operating Economy	Average "Score"
Village Collectors	Relationship with farmers, Farm-gate collection	Relies on District Collectors	Groceries, credit, some Input provision	Very close	Mostly Washing, De-pulping	Largely quality signals	Few barriers to entry	Informal	0.9
District Collectors	Proximity to both sourcing regions and exporters. Strong capital and ability to hold inventories	Mostly savings and arrangements with agents, but may have some loans	Financing, some input provision	Variable	Drying facilities, hulling, quality grading, storage	Price, quality, and stocks availability	Deeper pockets and connections	Semi-Formal	2.5
Agents	Strong capital and proximity to exporters	Mostly savings and loans	Less common at farmer level	Low	Storing, blending, quality grading	Price, quality, and stocks availability	Deep connections with exporters	Semi-Formal	2
Coops^(a)	Certifications and proximity to farmers and exporters	Mostly savings and loans	GAP, finance, training.	Very close	Washing, de-pulping, drying, facilities, hullers, quality grading.	Price, Quality, and availability of certified coffee	Deeper connections	Formal	2.6

Note: (a) Mostly applicable for Northern Sumatra and to some extent for West Lampung.

A “MODAL MIDDLEMAN” IS A 43-YEAR-OLD MALE WITH HIGH SCHOOL EDUCATION OR LOWER



DISTRICT COLLECTORS USUALLY HAVE 5 YEARS EXPERIENCE, OWN COFFEE FARMS, AND SOME INCOME FROM OTHER CROPS



MIDDLEMEN TEND TO HAVE HIGH CONFIDENCE IN THEIR BUSINESS



Associations

- Some middlemen are members of MPKG (Community Foundation for the Protection of Gayo Coffee), MASPEKAL (Lintong Coffee Community), and ASKL (Lampung Coffee Supplier Association)
- Widely cited benefits are price information and regional branding

Confidence in business

- On average, middlemen ranked their confidence levels at 4.2 (0 = no confidence, 5 = very confident)

Middleman prospects

- 59% of middlemen want their children to continue their business

Technology

- Many middlemen use mobile phones to conduct business online (68%)
- Almost all middlemen use mobile phones (with/without internet) to communicate with buyers/sellers
- Computers and tablets are rarely used by middlemen
- 90% of the middlemen said technology supports critical business functions, such as updating price information, sending photos of coffee samples, marketing, and tracking payments



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



- Few village collectors use motorbikes to transport coffee



- 27% of middlemen use light trucks, with an average reported asset value of US\$8,457
- Used by district collectors (31%) and village collectors (33%)



- 34% of middlemen use heavy trucks with an average reported asset value of US\$21,819
- Used by agents (58%) and district collectors (44%)

Other findings

- Middlemen transport coffee for an average distance of 207 km (min 2 km, max 550 km). However, middlemen in Southern Sumatra transport their coffee farther than middlemen in Northern Sumatra — 289 and 141 kms, respectively
- Most middlemen customers (coffee buyers) are either in Medan or in Bandar Lampung
- 22% of middlemen do not use their own vehicle to transport coffee. They rent vehicles to transport coffee

Source: Enveritas middlemen surveys

MOST MIDDLEMEN STORE COFFEE FOR LONGER IF THEY THINK THE PRICES WOULD GO UP



Processing

- 90% of middlemen process coffee
- In Northern Sumatra, widely followed processing methods are: de-pulping (46%), drying (75%), sorting (71%), segregating based on quality (63%), hulling (58%)
- In Southern Sumatra, widely followed processing methods are: segregating based on quality (53%), hulling (41%), and drying (35%)

Blending

- 34% of middlemen blend various qualities and origins of coffee before selling it
- 53% of middlemen in Southern Sumatra blend their coffee. 21% of middlemen in Northern Sumatra blend their coffee; the focus on arabica origins deters many middlemen from blending
- Middlemen blend the coffee to fulfill quota from exporter and to maintain coffee taste
- Some middlemen blend coffee if they think the price they are getting is low

Storage

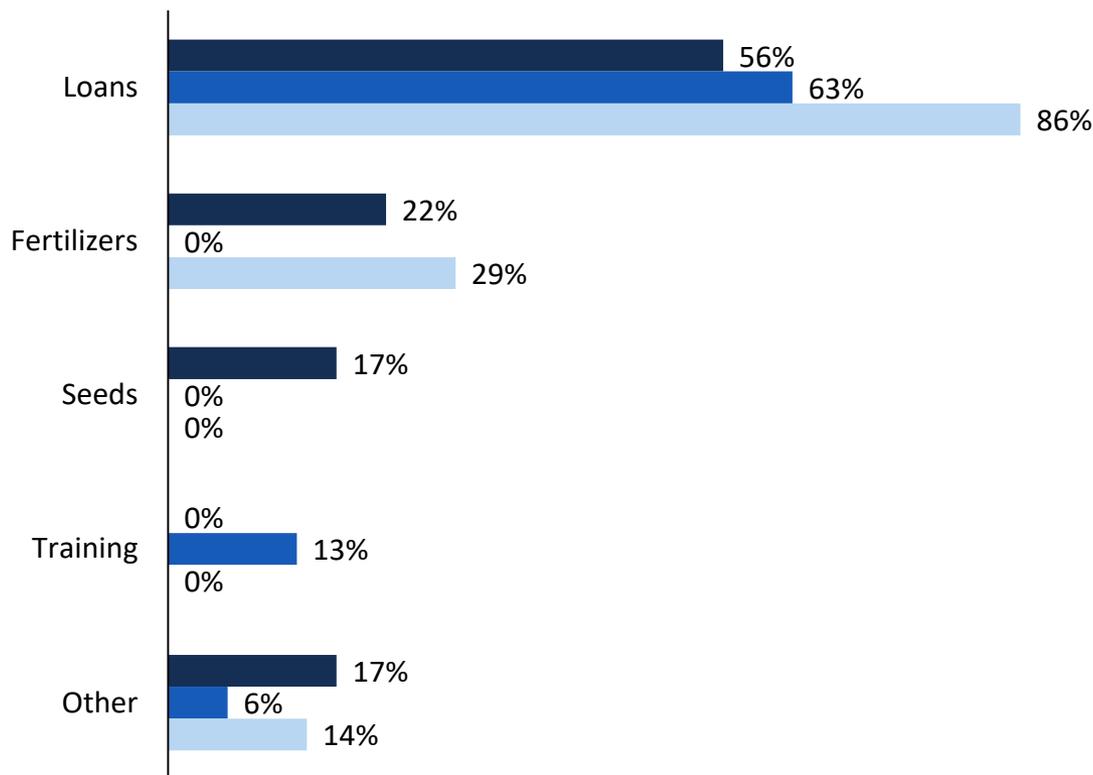
- 27% of middlemen store coffee between buying and selling
- On average, middlemen store coffee for 3.5 months
- Many store coffee to observe price movements to maximize income by selling when prices are opportune

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



Services middlemen report offering to farmers % of middlemen surveyed

- Village Collector
- District Collector
- Agent



19% of farmers report receiving loans from middlemen

1% of farmers report receiving fertilizers from middlemen

Farmers do not report receiving seeds from middlemen

Farmers do not report receiving training from middlemen

However, 2% of farmers do report receiving ad-hoc advice from middlemen

MIDDLEMEN OFFER LOANS TO FARMERS AND OTHER MIDDLEMEN



	Village Collectors	District Collectors	Agents
% of agents willing to give loans to sellers	56%	63%	86%
Est. % of sellers who get loans (according to agents)	29%	40%	52%
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 (IDR)	2.4M (\$174)	22M (\$1,624)	76M (\$5,548)
Typical form of loan	90% cash; rest as inputs	90% cash; rest as inputs	100% cash
Interest rates agents say they provide to sellers	No interest rate, seller payback the loan with coffee		
Risks	Loan default, acceptance of bad quality coffee for repayment, legality of collateral, reduced capital for trading		
USP to farmers	Loan based on relationship, can payback with coffee, easy access		
Loan tenure	Min: 1 day, Max: 1 Year. Occasionally, 1 cycle of harvest period		
Other comments	Conditional on sellers selling coffee exclusively to middlemen. For some, no conditions, but purely based on long-term relationship		

Source: Enveritas middlemen surveys



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MIDDLEMEN FACE CHALLENGES IN GETTING ACCESS TO FORMAL BANKING



Main findings:

- Only 29% of middlemen report getting loans from banks for working capital
- 5% access loans from cooperatives
- Reasons for choosing bank loans:
 - Provide large amounts (an average of 1bn IDR, approximately US\$79k)
 - Reasonable interest rates (average 0.2-1.67% per month)
 - Accessible

Institutions mentioned by middlemen:



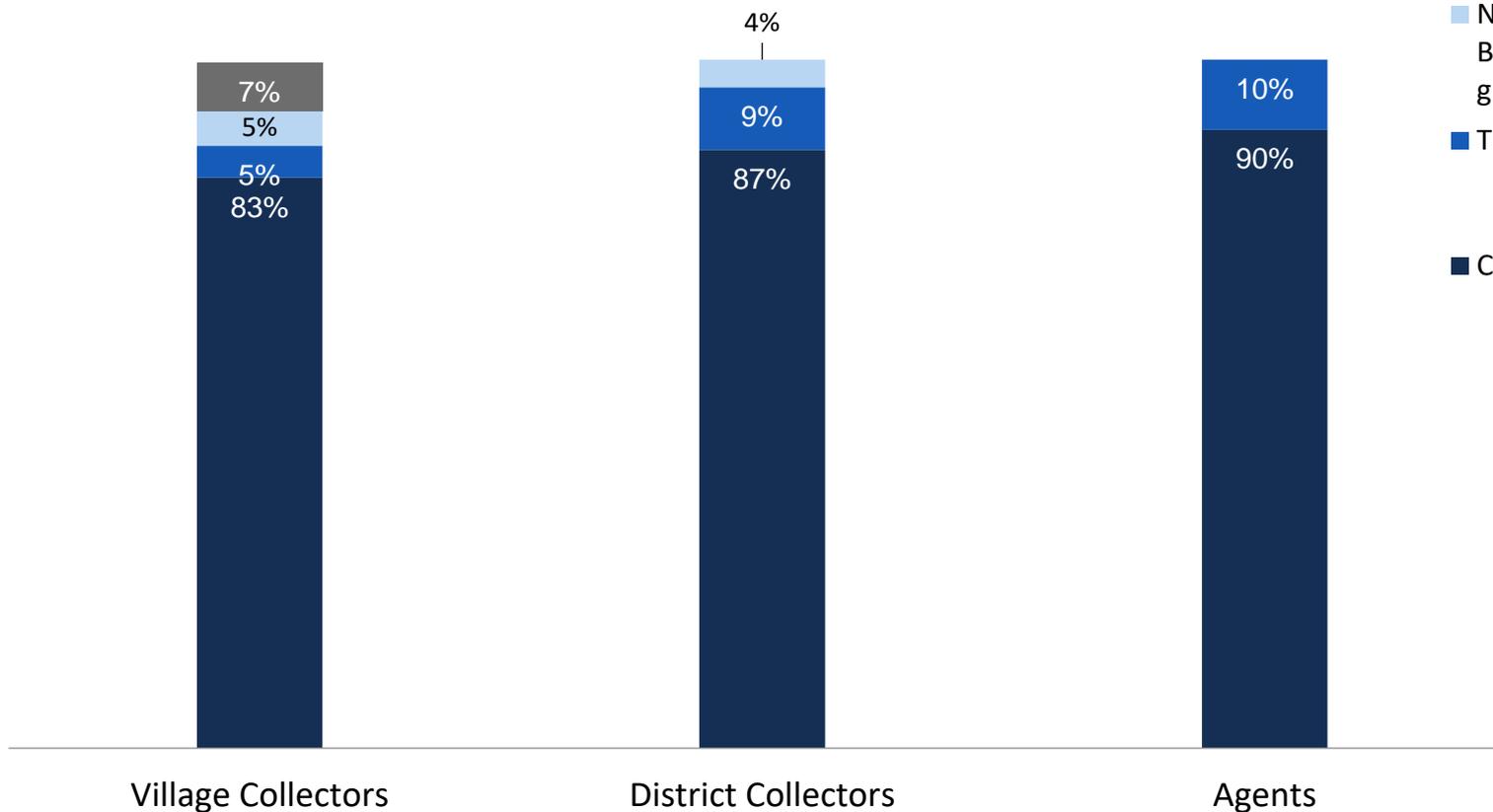
Source: Enveritas middlemen surveys

COFFEE AND TRADING OF OTHER CROPS ARE TWO MAJOR SOURCES OF REVENUE FOR ALL MIDDLEMEN ARCHETYPES



Composition of middlemen revenue % of income streams

- Salaried Job
- Non-Agriculture Business, e.g. grocery store
- Trading Other Crops
- Coffee



Source: Enveritas middlemen surveys



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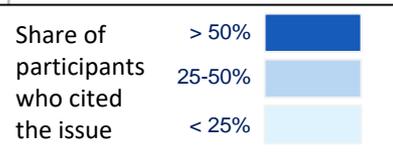
WHILE VOLUMES TRADED HAVE DECREASED, THE COFFEE BUSINESS REMAINS PROFITABLE FOR MIDDLEMEN



	Village Collectors			District Collectors			Agents		
YOY coffee volume traded	Increasing 25%	Decreasing 73%	Neutral 5%	Increasing 29%	Decreasing 71%	Neutral 0%	Increasing 20%	Decreasing 80%	Neutral 0%
Profits (Coffee)	Very Profitable 22%	Profitable 50%	Neutral 28%	Very Profitable 19%	Profitable 69%	Neutral 13%	Very Profitable 0%	Profitable 100%	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%
Major expenses	Transportation, labor, processing, interest			Labor, transportation, processing			Labor, transportation, and processing		
Barriers to increase MM income	Price, capital, competition			Capital, price, coffee quality, weather			Coffee quality, capital		

Source: Enveritas middlemen surveys

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





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



Selected opportunities to support Indonesia's middlemen

Each opportunity was evaluated for potential Impact and Feasibility

- Solve current business challenge
- ▲ Change business as usual



(1) MODERNIZE MARKET ACCESS SYSTEMS



Concept Summary

- Use technology to improve upstream market linkage and financial transactions.
- Mobile app that links middlemen with farmers to facilitate trade and payments (VC+DC)*
- Train and incentivize middlemen and farmers to use the platform (VC+DC)*

Type of Opportunity

- Change business as usual

Current Indicators

- 60% of middlemen use phone with internet
- 51% of middlemen communicate with their buyers through instant messaging applications
- 92% of coffee farmers in Northern Sumatra use mobile phones

Design Considerations

- Currently, the channel for price dissemination between middlemen and exporters is good: middlemen usually obtain prices from exporters and disseminate them within the marketplace
- However, on the upstream, most farmers visit weekly markets and interact with a few middlemen for price discovery. Almost all payments are made in cash
- Fast-growing smartphone penetration in the country could make this interaction efficient and benefit both middlemen and farmers

Envisioned Outcomes

- Improved business negotiations and price transparency
- Efficient supply chains

Source: Stakeholder interviews and Enveritas middlemen surveys.

* Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents

(2) ACCESS TO CAPITAL



Concept Summary

- Educate middlemen on various financial products available in the market (VC+DC)
- Partner with banks such as BRI bank that have a wide presence in key coffee trading clusters and develop a bespoke banking product for middlemen
- Explore opportunities to promote mobile and digital banking

Type of Opportunity

- Change business as usual

Current Indicators

- 29% of middlemen use banks to borrow working capital
- 1 in 3 middlemen claim the lack of capital is the biggest barrier to improving income
- 17.4 commercial bank branches for every 100,000 adults in 2016, which is on par with other middle-income economies*

Design Considerations

- Good processing practices remain elusive (VC+DC)
- Almost all middlemen in Sumatra and 65% of coffee farmer households in Northern Sumatra have bank accounts
- A study by McKinsey reveals that Indonesian banking customers are among Emerging Asia's most enthusiastic adopters of digital banking

Envisioned Outcomes

- Improved financial management
- Robust credit history that helps both middlemen and farmers to get loans at competitive rates

Source: Stakeholder interviews and Enveritas middlemen surveys, World Bank 2018.
Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents

(3) 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 in selected kecamatan; recruit via exporter networks for more sophisticated middlemen

Type of Opportunity

- Solve current business challenge

Current Indicators

- 41% of middlemen are concerned about growing competition in the business.
- 32% of middlemen cite concerns on lack of education or business skills
- 37% of middlemen found price volatility as a threat to business

Design Considerations

- Middlemen's skill gaps:
- Good processing practices (VC+DC)
- Business Management (DC + AG)
- Technological literacy (DC+AG)

Envisioned Outcomes

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

Source: Stakeholder interviews and Enveritas middlemen surveys.

Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents

(4) OPTIMIZE TRANSPORTATION COSTS



Concept Summary

- Implement a truck pooling/sharing program (DC) that will help middlemen to monetize their vehicles' excess capacity. This will also help reduce the high upfront cost for middlemen who don't own vehicles.
- Leverage technology to generate platforms where middlemen can rent or lease vehicles (DC)

Type of Opportunity

- Solve current business challenge

Current Indicators

- 71% of middlemen transport coffee
- 61% of middlemen said transportation as their major cost
- 59% of middlemen own trucks to transport the coffee

Design Considerations

- On average middlemen transport 207 kms
- Exporter clusters such as Medan/Lampung are far from coffee growing regions

Envisioned Outcomes

- Reduced operational expenses
- Efficient middlemen businesses
- Decreased carbon emissions due to improved utility of middlemen vehicles

Source: Stakeholder interviews and Enveritas middlemen surveys.

Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents

(5) PROPER RECEIPTS AND QUALITY IMPROVEMENT



Concept Summary

- Distribute pre-printed receipts for middlemen to use with farmers that feature quality grading (VC + DC)
- Train middlemen to deliver feedback and tips on coffee quality (e.g. drying practices) (VC)

Type of Opportunity

- Change business as usual

Current Indicators

- 80% farmers who sell to middlemen do not receive proper receipts
- 37% of farmers who sell to middlemen follow proper drying or storage practices
- 12% of middlemen want training on quality management and one in ten cite coffee quality as the biggest barrier to increase their incomes

Design Considerations

- Currently there is a limited formal price mechanism to encourage farmers to improve quality.
- Majority of middlemen, especially the middlemen who buy from farmers assess coffee quality through visual/olfactory inspection and decide the price on the spot with a small mark-up or down
- Climate change poses threat to coffee quality, given the delicate processing methods some of the regions follow

Envisioned Outcomes

- Improved transparency around quality assessment
- Incentive for farmers to improve quality created
- Reduced informality

Source: Stakeholder interviews and Enveritas middlemen surveys.

Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents

(6) EXPAND MIDDLEMEN SERVICES PORTFOLIO



Concept Summary

- Develop middlemen as a one stop shop for inputs and advisory services (e.g. affiliated middlemen may sell inputs, buy coffee, and advise on type/quantity of inputs to use) (DC)
- Train middlemen to deliver micro-modules to teach farmers pruning, pest management, and other techniques to improve yield and quality
- Train middlemen (particularly VC + DC) to assess farms for the appropriate type, dose, and application of fertilizer
- Partner with fertilizer/seedling companies to incorporate coffee middlemen in their distribution channels

Type of Opportunity

- Change business as usual

Current Indicators

- 24% of middlemen offer input services to farmers
- 32% of middlemen offer agronomy advice to farmers
- 2% of farmers received proper trainings in Northern Sumatra; 6% in Southern Sumatra.
- 80% of farmers use fertilizer

Design Considerations

- Agro-service providers in Sumatra are fragmented and diversified
- Uncommon to see middlemen selling adjacent services such as fertilizer, seeds or other inputs
- Availability and supply of coffee is a significant concern for middlemen
- Middlemen who offer a basket of services to coffee farmers tend to have a competitive edge

Envisioned Outcomes

- Improved soil quality and productivity
- Improved economic opportunities for middlemen
- Convenience for farmers

Source: Stakeholder interviews and Enveritas middlemen surveys.

Middlemen archetypes: VC = Village Collectors, DC = District Collectors, AG = Agents



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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 Arabica and Robusta supply chains of Indonesia.
- 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 Sumatra (a major coffee producing island, which includes Aceh, Northern Sumatra, Southern Sumatra) in late 2019 / early 2020, with a sample size of 41 participants.
- Farmers interviews were conducted country-wide during both the 2018/19 and 2019/20 coffee harvests, with a sample size of over 3,000 farmer participants (combined years).

Secondary data collection

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