



# THE FUTURE OF COFFEE

A Quick Scan on Improving the Economic Viability of Coffee Farming



# OBJECTIVES OF STUDY

## Overall objective

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- Identify opportunities for potential benefits to coffee farmers from improved farm profitability and increased efficiency along the supply chain

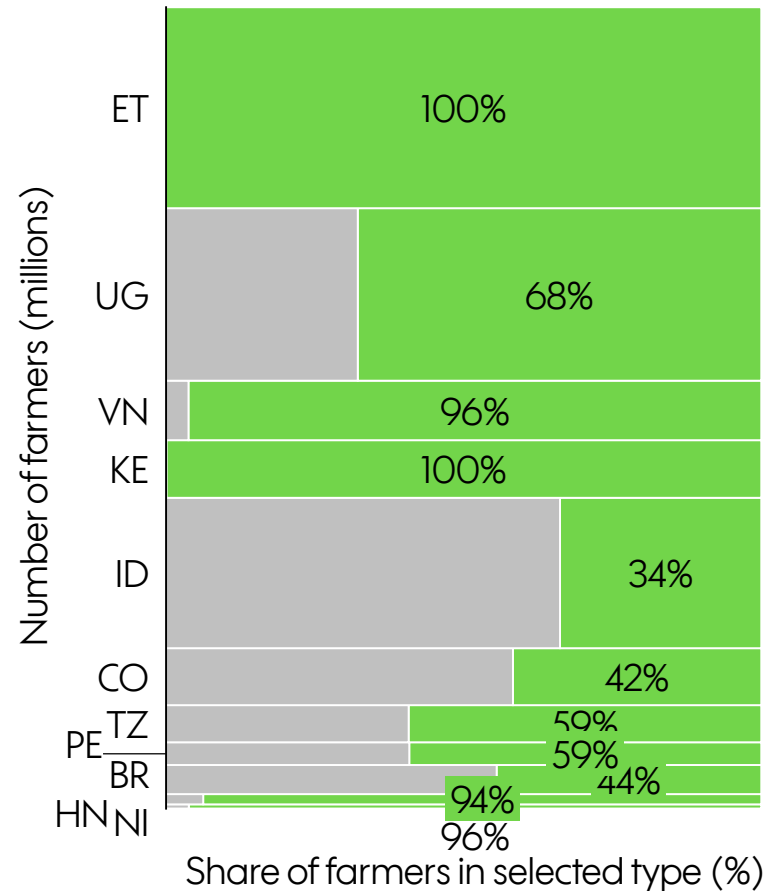
## Detailed objectives

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- 1 Understand overall farm-level financial benefits for the dominant farmer type in each country and how they compare to other countries
- 2 Describe the main green coffee supply chain in each country at a high level to understand supply chain efficiency
- 3 Highlight key opportunities to increase farmer profitability in each country and explore next steps to increase value add for farmers and the industry

# OUTLINE OF FARMER TYPE SELECTED FOR ANALYSIS

Number of farmers in selected type (%) by number of farmers total in country (millions)



Country	Size	Variety	Other
ET	Under 5 ha	Arabica	
UG	Under 0.5 ha	Robusta	
VN	Smallholder	Robusta	Mostly Central Highlands
KE	Under 2 ha	Arabica	
ID	Smallholder	Robusta	Southern Sumatra
CO	Under 5 ha	Arabica	Medium altitude*
TZ	Under 3 ha	Arabica	
PE	Under 5 ha	Arabica	
BR	Under 10 ha	Arabica	Un-mechanized, MG
HN	Under 7 ha	Arabica	
NI	Under 14 ha	Arabica	

Other Selected type

\* Medium altitudes in Colombia refers to farms between 1,200-1,600m

# ANALYTICAL PROCESS TO DEVELOP A BUSINESS CASE FOR COFFEE FARMING

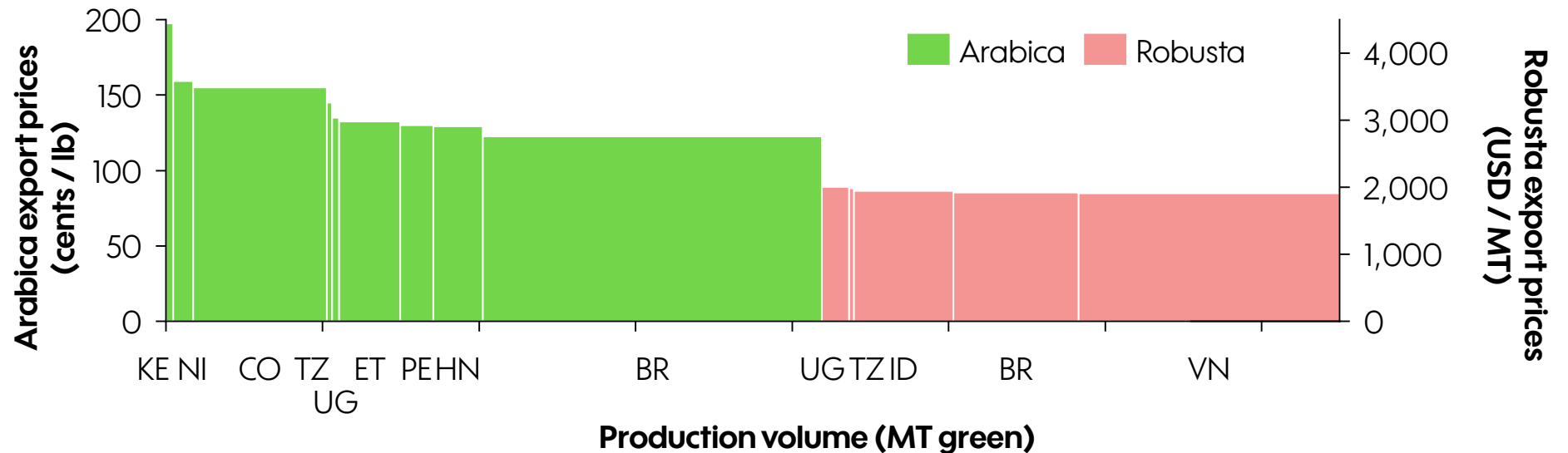


Approach	Model Inputs	Model Outputs
<b>1</b> Define producer types	<ul style="list-style-type: none"> <li>• Farm size</li> <li>• Coffee yields</li> <li>• Coffee quality metrics</li> <li>• Production volume</li> <li>• Number of growers</li> </ul>	<ul style="list-style-type: none"> <li>• Farmer types</li> </ul>
<b>2</b> Establish farmer financial benefits	<ul style="list-style-type: none"> <li>• Coffee price premiums</li> <li>• Potential increase in yield</li> <li>• Incremental changes to costs</li> </ul>	<ul style="list-style-type: none"> <li>• Potential increase in net income for farmer</li> </ul>
<b>3</b> Describe value chain structure	<ul style="list-style-type: none"> <li>• Key actors in value chain</li> <li>• Costs and margins</li> <li>• Share of value captured</li> </ul>	<ul style="list-style-type: none"> <li>• Map of supply chain</li> <li>• Supply chain overview</li> </ul>
<b>4</b> Present recommendations	<ul style="list-style-type: none"> <li>• Selected opportunities to optimize business case</li> </ul>	<ul style="list-style-type: none"> <li>• High-level recommendations for priority opportunities</li> <li>• Potential partners to address gaps</li> </ul>

Note: Assumes that demand for coffee will increase as coffee supply increases, thus maintaining static coffee prices

# BRAZIL HAS THE MOST VALUABLE COFFEE INDUSTRIES, FOLLOWED BY VIETNAM

FOB export prices by total production volume\*

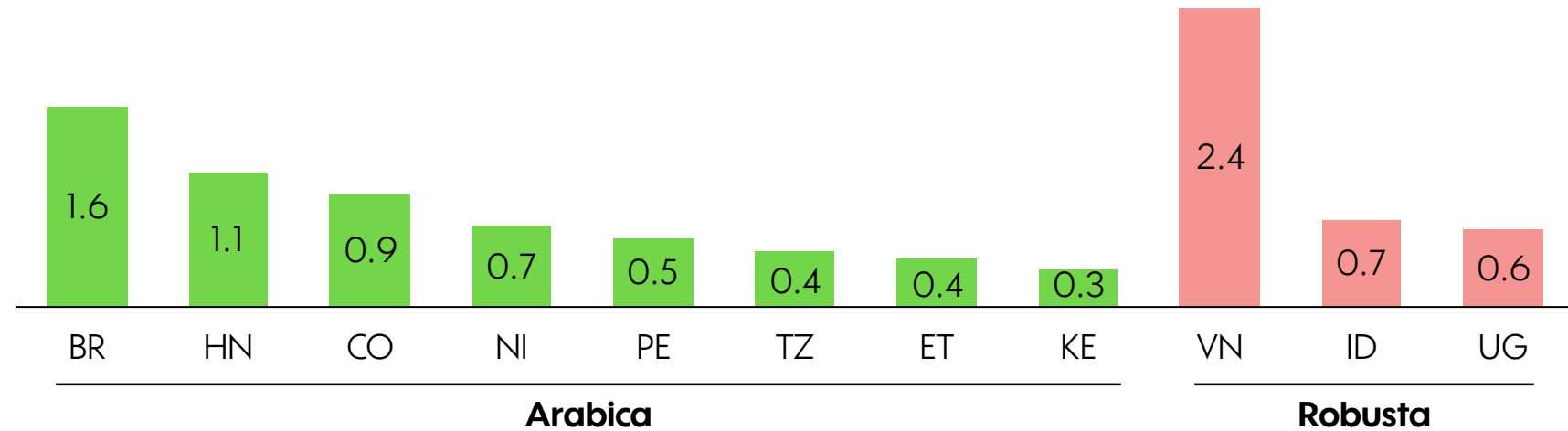


- Brazil has the most valuable industries (\$5.9B in Arabica and \$1.5B in Robusta), followed by Vietnam (\$3.1B)
- Coffee production estimates for 2016/17 suggest the total will remain stable, up 0.1% to 151.6 million bags
- Arabica production is set for a record 93.5 million bags with bumper crops expected in Brazil, Colombia and Honduras. Prospects for Robusta supply, on the other hand, are less positive, with smaller crops expected from most major origins. Prices on the futures markets have reflected these developments, with Robusta prices generally showing support and Arabica under pressure, leading to a narrowing in the arbitrage between the two.

\* Production volume for respective variety; total production volume of country may differ. Tick mark refers to 1m MT green. Arabica prices shown for 2016 average. Robusta prices shown for 2015 average for Uganda, Tanzania and Brazil, 2016/17 season for Indonesia, and 2016 average for Vietnam. FOT price for Uganda, used throughout analysis, is \$1,531 / MT (2015/16 season). Source: ICO Coffee Market Report, December 2016.

# YIELDS VARY WIDELY ACROSS COUNTRIES WITH OPPORTUNITIES TO CLOSE GAPS

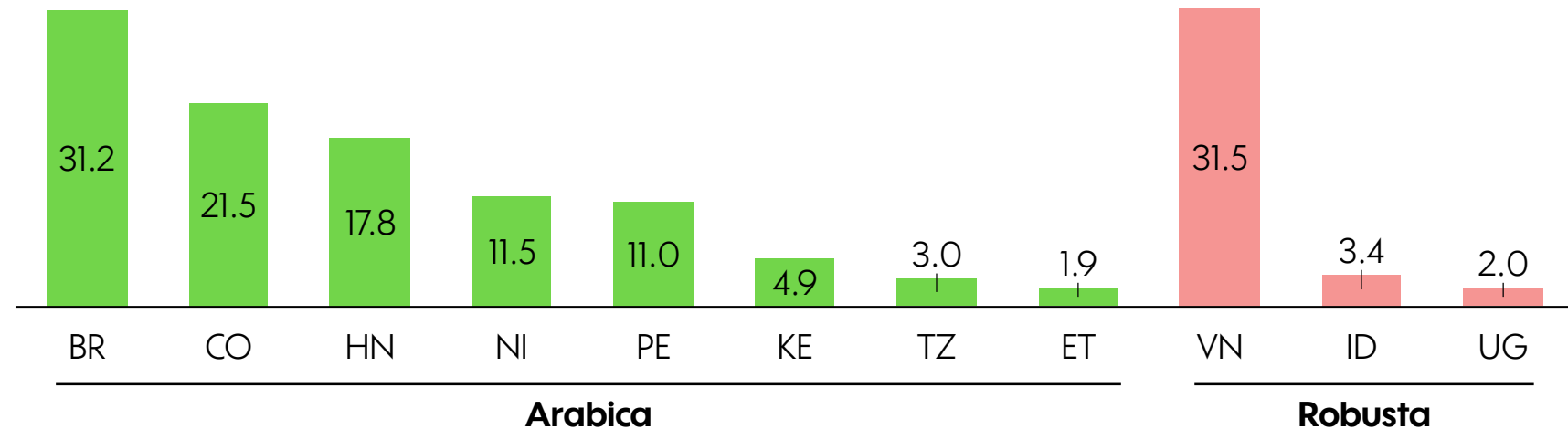
Average coffee yield (MT green / ha)



- East African countries that produce Arabica could significantly increase yields
- Yields could be increased (10-100%) over the next five years by improving agronomy practices (e.g., pruning, plant nutrition, weeding, integrated pest management), farm rehabilitation (e.g., rejuvenation/stumping, replanting), and input optimization; Colombia has used these techniques to rejuvenate its coffee plants over the past seven years and may beat production records in future years
- Phased adoption of practices that impact cash flows could be incorporated over an extended period
- Training programs featuring community trainers and hands-on instruction delivered to small training groups on a monthly basis offer lasting impact on yield and farming practices

# HIGHLY PRODUCTIVE COUNTRIES HAVE MUCH HIGHER COST STRUCTURES

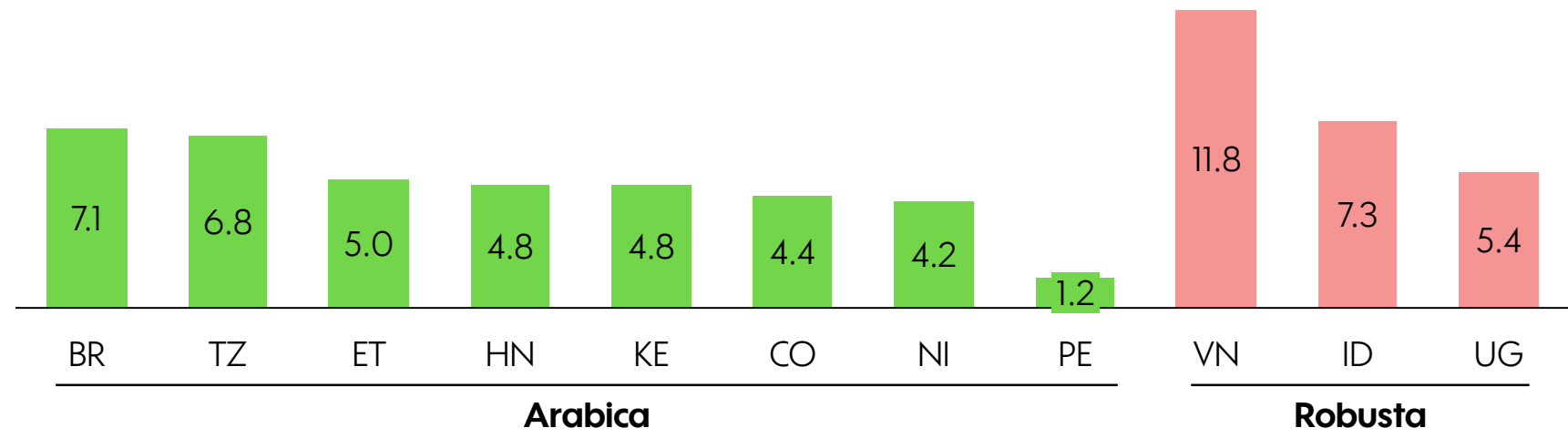
Current farmer coffee production costs per ha (Hundreds US\$ / ha)



- Origins whose farmers rely primarily on family labor and use few inputs have much lower cost structures, though also face lower comparative yields
- Some countries (e.g., Vietnam) have opportunities to lower costs through optimization of input use
- Production costs have been increasing; improvements in yield can amortize fixed costs. Mechanization or outsourcing of on-farm processing may reduce labor costs. Farmers need to understand the level of productivity necessary for profitability based on a break-even analysis

# CURRENT COFFEE NET INCOME PER HECTARE

Current farmer net income per ha from coffee (Hundreds US\$ / ha)



	Arabica								Robusta		
# of farmers in selected farmer type	129k	220k	2000k	96k	571k	235k	42k	132k	573k	507k	1161k

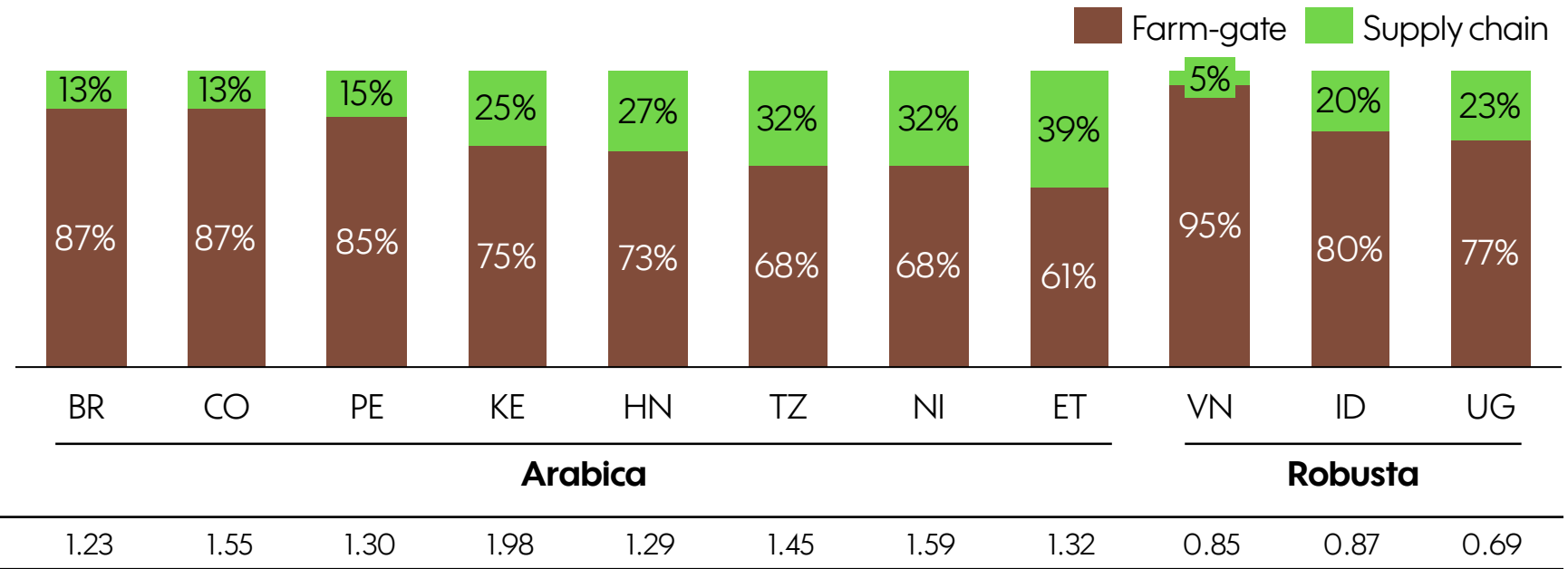
- Relatively high yields and low costs make coffee more profitable in countries such as Brazil and Vietnam, despite lower prices
- Overall, the number of farmers in Brazil and high yields make it the leader in coffee production, though farming is less profitable for farmers (Arabica, <10ha, un-mechanized, in Minas Gerais)
- Farmers may struggle with rising production costs. For example, in Colombia, despite high yields and prices, profitability is lower due to high costs

Note: Costs include depreciation of equipment where applicable and exclude family labor.



# SUPPLY CHAIN EFFICIENCY VARIES WIDELY THOUGH THERE ARE SOME OUTLIERS

Farm-gate price and supply chain costs (% of export price)

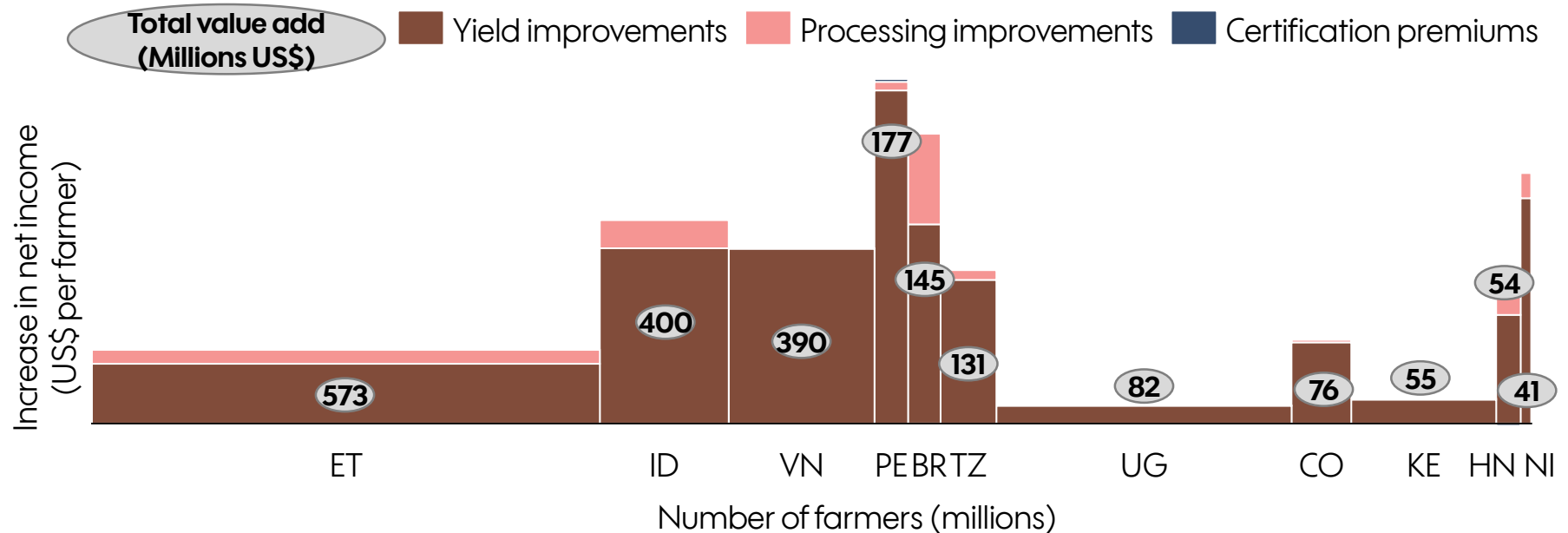


- Supply chain efficiency varies widely across coffee origins, offering prospects for sector-wide changes
- There are broad opportunities in East Africa to improve supply chain efficiency and proportion of export price captured by farmers
- Vietnam's efficiency is driven by competition between locally-owned and multi-national exporters
- In general, countries with liberal policy environments, competitive markets, and farmer organization rank more highly in efficiency

Note: For Uganda, calculated based on FOT price. All other countries based on FOB price. See appendix for detail on data sources.

# SIGNIFICANT POTENTIAL TO INCREASE NET INCOMES ACROSS ORIGINS

Potential increase in annual net income (US\$ per farmer) by number of farmers (millions)



- Yield improvements are the most significant way to improve farmer incomes; opportunities are lower in countries with relatively smaller farms (e.g., KE, UG) as compared to larger farms (e.g., ID, VN)
- Arabica farmers at higher altitudes can increase incomes through quality improvement (e.g., CO, HN)
- Certification premiums offers some opportunities to farmers, but is not as critical in profitability improvements. However, certification schemes can act as a catalyst for other improvements and bring environmental and social benefits, which are outside the scope of this study

See appendix for detail on data sources.

# DESPITE PLAYING A CRITICAL ROLE IN COFFEE FARMING, WOMEN ARE SIDELINED



- Women perform a **significant amount of the labor** in coffee farming
- Women currently receive only **5%** of agronomy extension services (FAO)
- Men **share little information** with female family members
- When women have **increased control over income**, it is more likely to be spent on **children's health, nutrition and education**

To **increase coffee quality & quantity**, we need to provide to both women & men **agronomy training and extension services**

We need to help both men and women reflect upon and improve the **imbalances in workload, assets, and decisions over income**

To increase the likelihood that coffee income will benefit the whole family, we need to **increase women's influence over coffee expenditure decisions** through training of both women and men on **coffee marketing and financial literacy**

# GLOBAL OPPORTUNITIES



## Yield improvements

## Quality improvements

## Cost reduction

## Supply chain efficiencies

- Yields could be increased (from 10% in Vietnam to 100% in Peru) by improving agronomy practices (e.g., rejuvenation/pruning, weeding, mulching) in many countries including Peru, Nicaragua, Tanzania, Ethiopia, Kenya, Indonesia, and Uganda
- Achieving these yield increases across the 11 countries in the study would add 2.6 million MT of annual production by 2027 and generate \$2 billion additional farmer income annually at current price levels
- Training of smallholder coffee farmers, delivering hands-on instruction to small groups on a monthly basis, offers lasting impact on yield and farming practices
- Arabica farmers at higher altitudes can increase incomes through quality improvement, with opportunities for the greatest number of farmers in Ethiopia and Indonesia
- Achieving quality improvements across six priority countries in the study would generate \$200 million additional farmer income annually
- Changes to trading systems are required to incentivize quality improvements in some origins (e.g. Indonesia, Honduras, Peru) and some farmers require access to central wet mills to improve quality (e.g. Ethiopia, Tanzania)
- There are opportunities in Vietnam to implement cost reduction strategies, especially in irrigation and fertilization, with minimal impact on yield. Lower production costs would raise net income for farmers
- To increase yields, farmers in other countries will bear additional labor and non-labor costs, though production costs on a per pound basis will decrease
- Government policies that stimulate competition and reduce costs for private sector players will increase the share of the export price captured by farmers

# CALL FOR NEXT STEPS



Common  
production  
indicators

Regulatory  
environment

Extension  
services

Research

- There is a wide disparity of knowledge of basic production indicators, even within origins. Access to reliable production benchmarking data on indicators such as yield, price, and costs is essential to enable industry stakeholders to make evidence-based decisions
- The ability to review annual indicators and to understand the drivers of annual variance, is required for a benchmarking exercise to be useful
- Decisions are required on whom should contribute to this benchmarking exercise, which key production indicators to include, and the methodologies/definitions for indicators
- National and regional policies have driven many of the differences in supply chain efficiency
- In cases where there are opportunities to increase supply chain efficiency, we encourage stakeholders to assess removing barriers that add costs
- Creating effective regulation and support for inputs (e.g., fertilizer) is critical
- Both extension services and technical assistance are essential to improving farmers' awareness of and adoption of local best practices
- Training programs featuring community trainers and hands-on instruction delivered to small training groups on a monthly basis offer lasting impact on yield and farming practices
- In order to ensure the continued financial attractiveness of farming, stakeholders must invest in varietal research and new technologies. While all innovations may not be appropriate for each country, price volatility requires that we ensure coffee farming remain a viable option for farmers over the long term



# APPENDIX: DETAILED DATA

# HIGH LEVEL METRICS BY COUNTRY



Indicator (unit)	BR	CO	ET	HN	ID	KE	NI	PE	TZ	UG	VN
<b>Applicable to the farmer type selected for analysis</b>											
Avg. farm size (ha)	5.0	1.3	0.5	2.8	1.1	0.1	2.2	2.3	0.8	0.2	1.1
Current revenue (\$ / ha)	3,825	2,586	692	2,262	1,069	975	1,571	1,212	976	736	4,322
Potential increase in net income from yield improvements (\$ / ha)	155	242	463	151	619	664	397	562	677	307	628
Potential increase in net income from processing improvements (\$ / ha)	70	7	110	56	99	29	44	15	45	6	0
Potential increase in net income from certification premiums (\$ / ha)	-1	0	0	-3	0	0	3	5	0	0	2
Potential net income increase (\$ / ha)	224	249	573	203	718	693	445	582	722	313	630
Potential value add for country (\$)	145m	76m	573m	54m	400m	55m	41m	177m	131m	82m	390m

# FARMER TYPES SELECTED FOR ANALYSIS

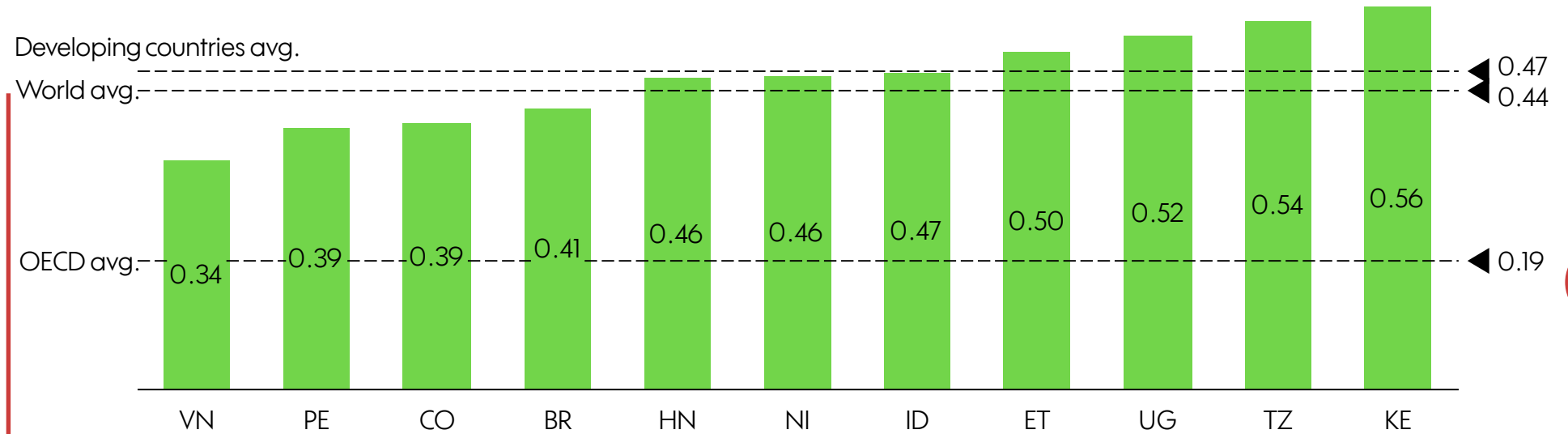


Country	Region	Farm size (ha)	Variety	Number of farmers	% of total number of farmers
BR	Minas Gerais	<10 ha	Arabica	129,000	44%
CO	Medium (1,200 – 1,600m)	Small (under 5 ha)	Arabica	235,000	42%
ET	N/A	Small (under 5 ha)	Arabica	2,000,000	100%
HN	N/A	Under 7 ha	Arabica	96,000	94%
ID	Southern Sumatra	Smallholder	Robusta	507,000	34%
KE	N/A	under 2 ha	Arabica	571,000	100%
NI	N/A	< 14 ha	Arabica	42,000	96%
PE	N/A	< 5 ha	Arabica	132,000	59%
TZ	N/A	<3 ha	Arabica	220,000	59%
UG	N/A	under 0.5 ha	Robusta	1,161,000	68%
VN	Mostly Central Highlands	Smallholder	Robusta	573,000	96%



# IMPLICATIONS OF GENDER INEQUALITY IN COFFEE

## Gender inequality index (GII) (2015)



Country	VN	PE	CO	BR	HN	NI	ID	ET	UG	TZ	KE
Overall rank (out of 159)	71	86	89	92	101	103	105	116	121	129	135

- As a cash crop, coffee income at the household level is often controlled by men (across many origins)
- Production can improve gender equality by a) allowing women access to formal markets; b) offering employment opportunities; c) directing government tariff revenue to public services benefitting women
- Targeted projects to improve women's agronomic knowledge, market access and access to finance would lead to balanced decision-making power over farm production, investments and income

Note: in GII, 0 is gender equal and 1 is unequal. In rank, 1 is best and 159 is lowest.  
Source: UNDP, <http://hdr.undp.org/en/composite/GII>



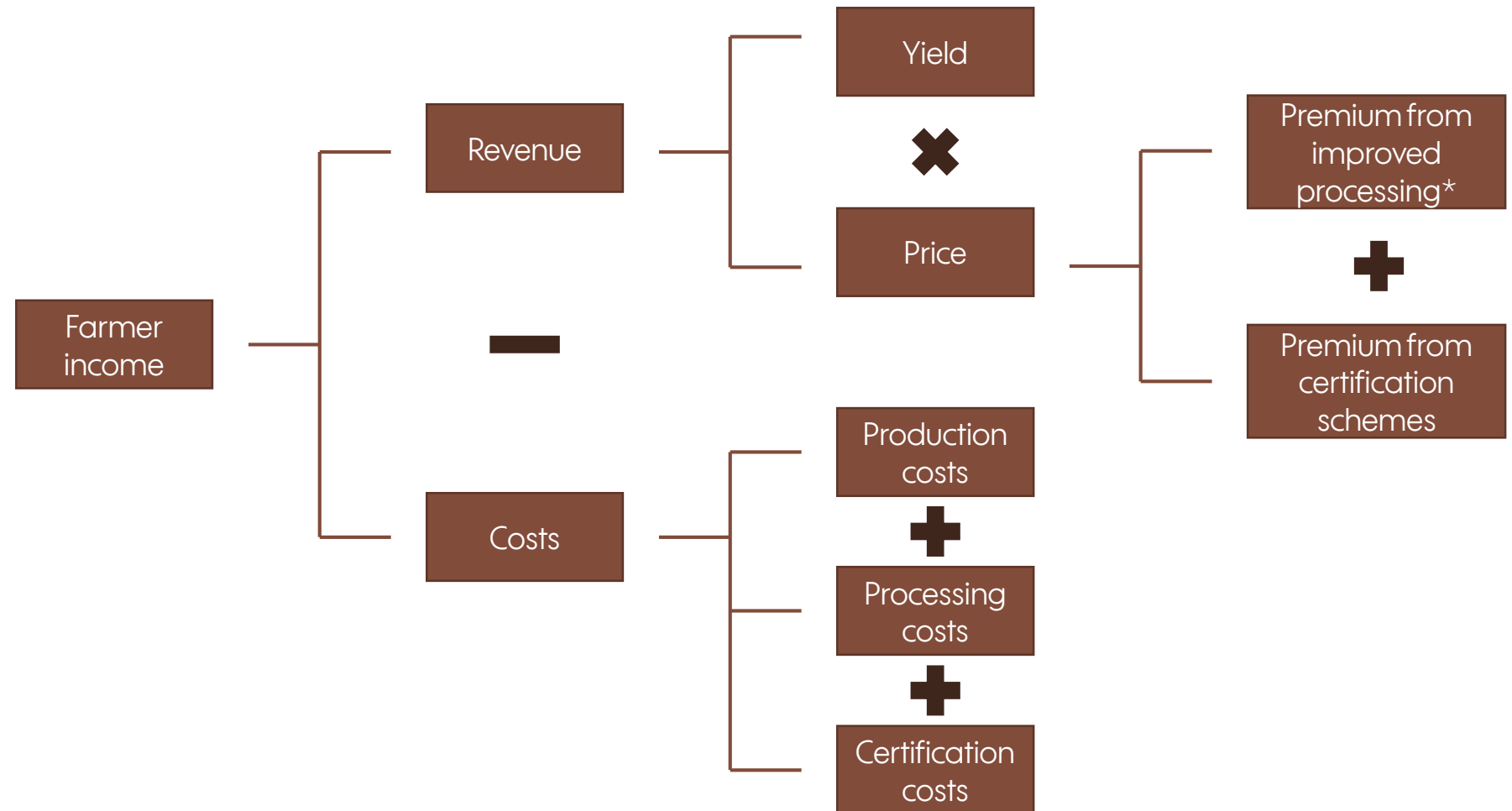
# APPENDIX: METHODOLOGY

# METHODOLOGY DEVELOPED TO ANALYZE IMPROVED PROFITABILITY



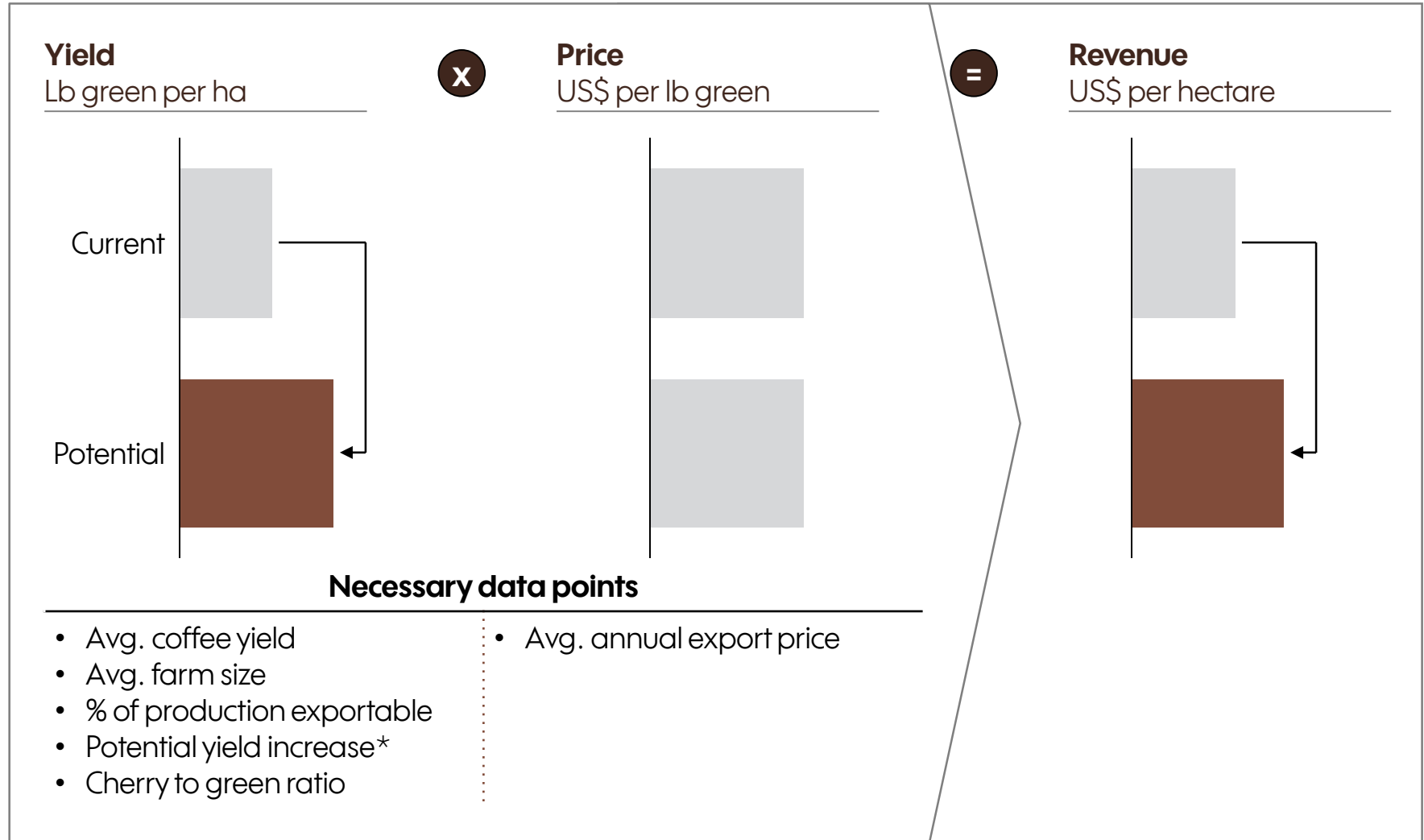
Methodology	Description
Current profitability	<ul style="list-style-type: none"><li>• Current farmer profitability analyzed from average farm size, farm-gate price, production volume, and farming costs</li><li>• Sources triangulated and validated from multiple sources where possible</li></ul>
Increased yield	<ul style="list-style-type: none"><li>• Potential yield improvement identified through estimates from industry experts and results from existing projects promoting best practices</li><li>• Costs of investments necessary to realize yield improvements identified</li></ul>
Improved price	<ul style="list-style-type: none"><li>• Potential price premiums identified through estimates from industry experts and results from existing projects promoting best practices</li><li>• Divided into quality premiums and certification premiums</li><li>• Costs of investments necessary to realize price premiums identified</li></ul>
Potential profitability	<ul style="list-style-type: none"><li>• Arrive at potential increase in net income through above steps</li></ul>

# FARMER INCOME IMPROVEMENT AS OUTPUT OF YIELD, PRICE, AND COSTS



# IMPROVEMENTS IN YIELD WILL LEAD TO INCREASE IN REVENUE...

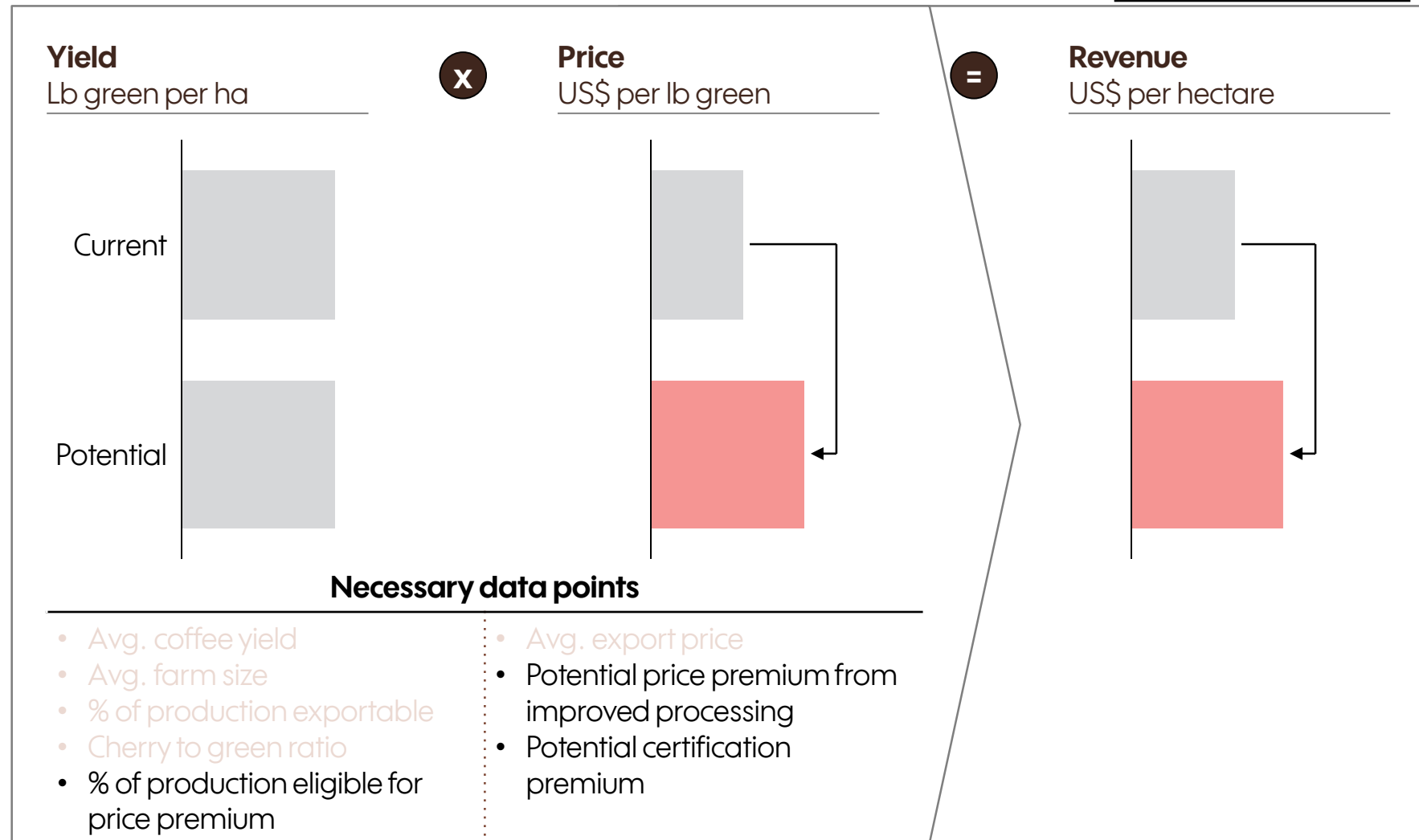
ILLUSTRATIVE



\* Yield increase from best practices in agronomy , such as shade, pruning, fertilization, disease management, mulching, and composting.

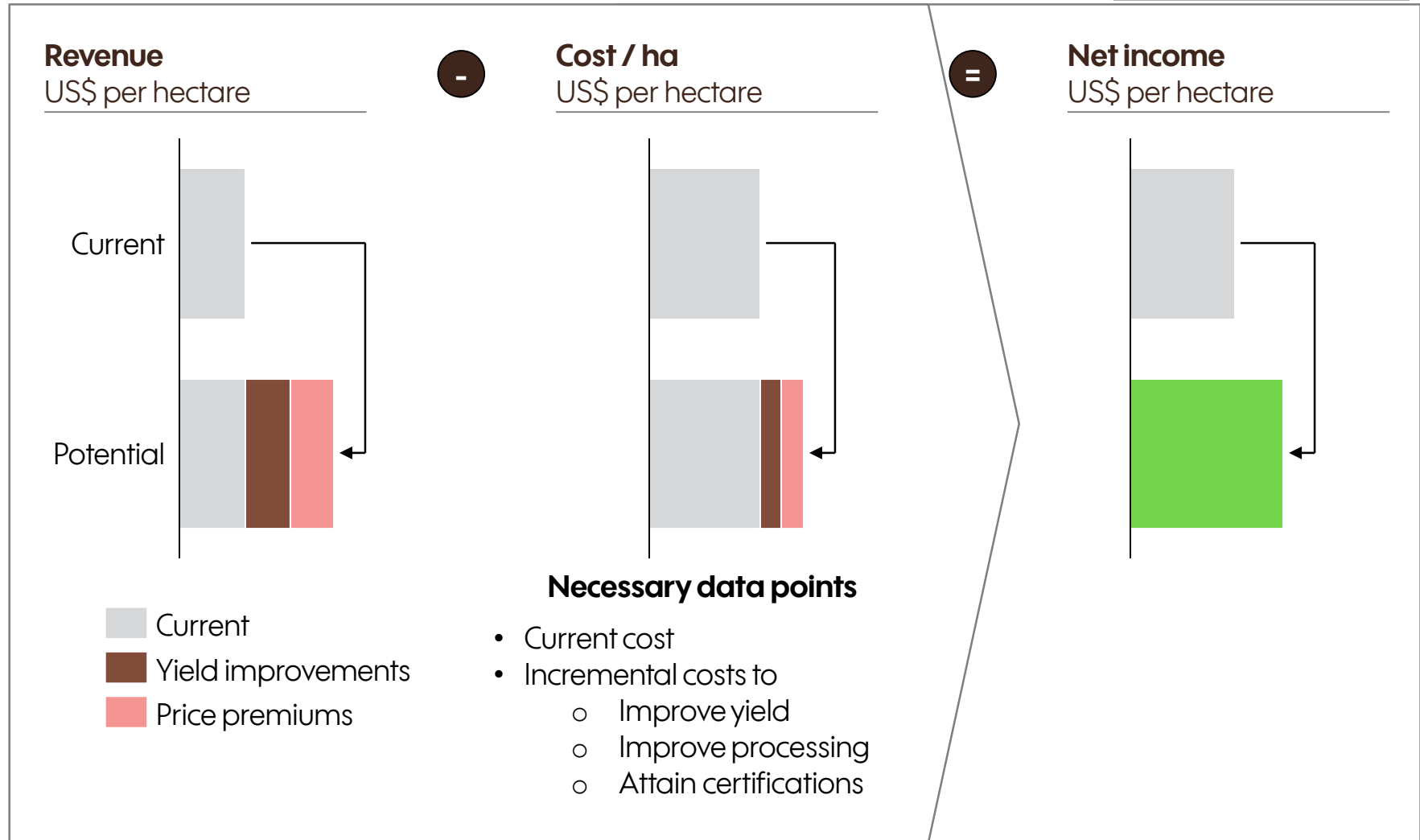
# ... AS WILL IMPROVED PROCESSING AND CERTIFICATION PREMIUMS

ILLUSTRATIVE

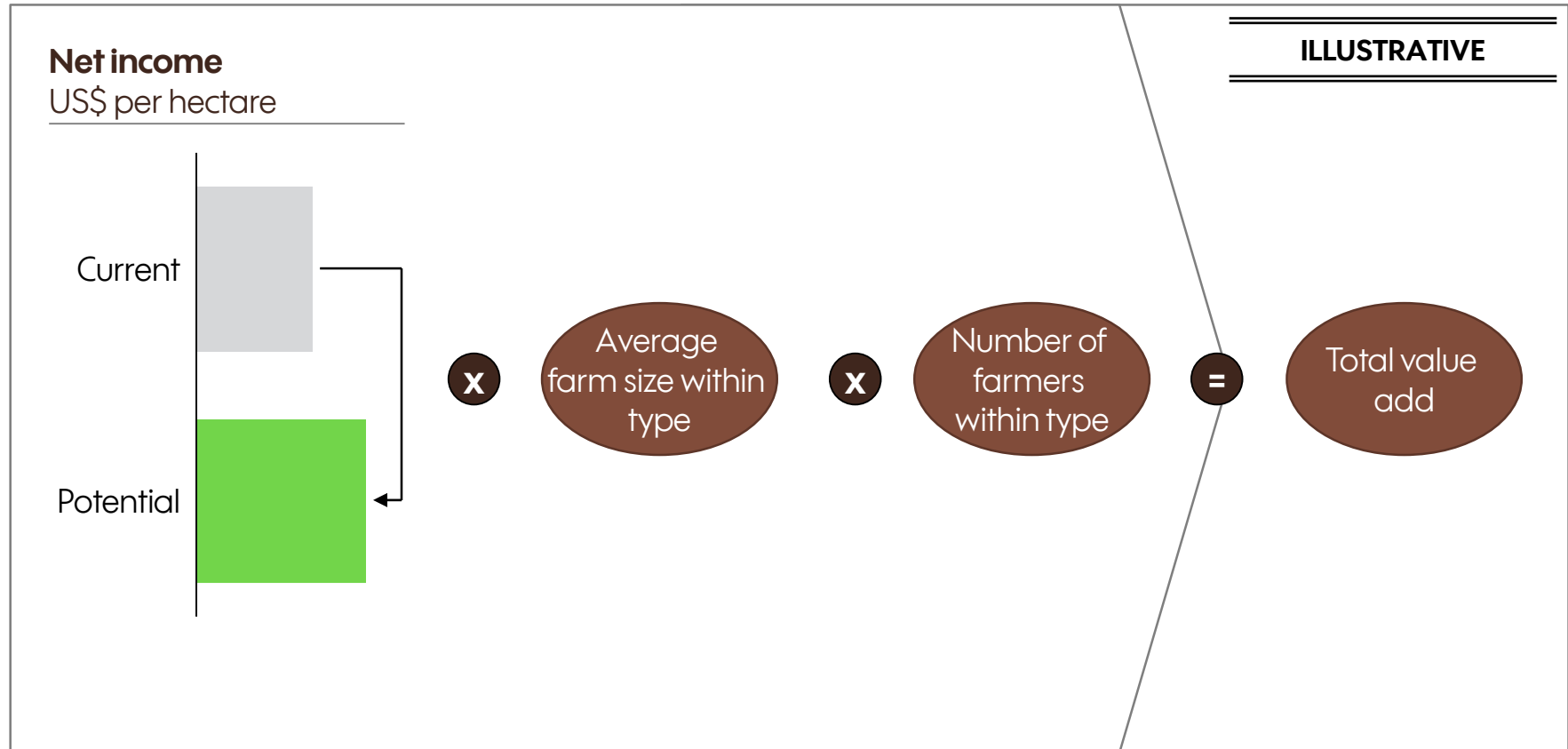


# INVESTMENTS WILL BE NECESSARY TO ACHIEVE SUCH IMPROVEMENTS

ILLUSTRATIVE



# INCREASES IN POTENTIAL INCOME WILL SCALE ACROSS THE TARGET COUNTRY







## LIMITATIONS OF METHODOLOGY

This scan is intended to initiate conversations between coffee origins, rather than to be an exhaustive study of farmer economics. It seeks to provide a synthesis of existing databases, studies, and reports as well as a comparative analysis across origins. However, given wide variation in methodologies, regions, and characteristics of available information, there may be credible and important data sources not incorporated into this study.

Since national averages of production indicators do not represent real farmers, our scan focuses on one farmer type within each origin. These farmer types are not representative of the national averages and opportunities may not be uniform within each farmer type.

This scan is not meant to evaluate certification schemes, but rather assesses incremental contribution of certification premiums to farmers' incomes. Impacts of certification achieved through the promotion of best practices and improved access to markets are outside the scope of the scan. Prices are assumed to be static and therefore the scan does not account for volatility of coffee prices and exchange rates, both of which have a significant impact on farmer incomes. Climate change, droughts, and diseases such as coffee leaf rust also pose risks for farmers, but are outside the scope of this scan. Intercropping and other household incomes are also outside the scope of this scan.



# APPENDIX: DATA SOURCES

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# BRAZIL



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, costs, certification	IDH and TechnoServe, Brazil: A business case for sustainable coffee production (2014); TechnoServe, Cup of Excellence in Brazil and Honduras: An Impact Assessment (2015)
Global Coffee Platform	Farmer data, market data, yield, price, costs	Stakeholder interview (2017)
Other	Farmer data, yield	USDA, GAIN Report: Coffee, Brazil (2017)
	Farmer data, market data, yield, cost	UFLA, Análise da viabilidade econômico-financeira da cafeicultura: um estudo nas principais regiões produtoras de café do Brasil (2009)
	Farmer data, market data	Ministry of Agriculture Statistics (2017)
	Costs, yield	National Coffee Council of Brazil (CNC) (2014)
	Costs	SEBRAE-MG, Central processing data for Educampo Project (CPDE) (2017)
	Costs	ICO, Assessing the economic sustainability of coffee growing (2016)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# COLOMBIA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, supply chain	IDH and TechnoServe, Colombia: A business case for sustainable coffee production (2014); Project implementation data (2017); Stakeholder interviews (2017)
Solidaridad	Farmer data, market data, yield, price, costs	Estudio de Costos de Producción en el sector cafetero colombiano (2014); Solidaridad-IDH Field Level Reports (2016); stakeholder interviews (2017)
FNC	Farmer data, market data, yield	FNC statistics (2016), accessible at <a href="https://www.federaciondecafeteros.org">https://www.federaciondecafeteros.org</a>
Fair Trade USA	Farmer data, market data, yield, cost	Cost of Sustainable Production: An overview of farm-level production analyses in Latin America (2017)
Other	Costs	Echavarría et. al., Commission on Coffee Competitiveness in Colombia (2015)
	Farmer data	USDA, GAIN Report: Coffee, Colombia (2016)
	Certification	Tuinstra, A. and Deugd, M., Rainforest Alliance Certification in Coffee Production: An analysis of Costs and Revenues in Latin America 2010-11 (2011); ICO, The State of Sustainability Initiatives Review 2014 - Standards and the Green Economy (2014)
	Yield, cost	ICO, Assessing the economic sustainability of coffee growing (2016)
	Supply chain	Asoexport, Stakeholder interview (2017)
	Price, costs	García, C. et. al., Costos y beneficios de la implementación de Estándares Voluntarios de Sostenibilidad en café. Un estudio de Caso en Colombia (2014)

# ETHIOPIA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs, supply chain	IDH and TechnoServe, Ethiopia: A business case for sustainable coffee production (2014); Stakeholder interview (2017); TechnoServe implementation project data
Agri-Logic	Farmer data, market data, yield, price, costs, certification	Agri-Logic and GCP, African Coffee Sector: addressing national investment agendas on a continental scale (2016)
Enveritas	Farmer data	Stakeholder interview (2017)
Other	Farmer data, market data, yield	USDA, GAIN Report: Coffee, Ethiopia (2016)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# HONDURAS



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs	Stakeholder interviews (2017); Project implementation data(2017)
Global Coffee Platform	Farmer data, yield	Stakeholder interview (2017)
Hanns R. Neumann Stiftung	Farmer data, market data, yield, price, costs	Stakeholder interview (2017); Project implementation data (2017)
Fair Trade USA	Farmer data, market data, yield	Cost of Sustainable Production: An overview of farm-level production analyses in Latin America (2017)
Enveritas	Farmer data, costs	Stakeholder interview (2017)
Other	Farmer data, price	USDA, GAIN Report: Coffee, Honduras (2017)
	Farmer data, price data	IHCAFE statistics (2017)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# INDONESIA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, costs, supply chain	IDH and TechnoServe, Indonesia: A business case for sustainable coffee production (2014); Stakeholder interview (2017)
Hanns R. Neumann Stiftung	Farmer data, market data, yield, price, costs	Stakeholder interview (2017)
Enveritas	Farmer data, market data	Stakeholder interview (2017)
ICCRI	Farmer data	Stakeholder interview (2017)
Other	Farmer data, yield, supply chain	USDA, GAIN Report: Coffee, Indonesia (2017)
	Farmer data, yield	Ministry of Agriculture, KOPI Report (2017)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# KENYA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs, supply chain	Stakeholder interview (2017); TechnoServe implementation project data
Agri-Logic	Farmer data, market data, yield, costs, certification, supply chain	Agri-Logic and GCP, African Coffee Sector: addressing national investment agendas on a continental scale (2016)
FAO	Market data, yield, costs	FAO, Good Hygiene Practices along the coffee chain (2006); FAO, Analysis of Incentives and Disincentives for Coffee in Kenya, Monitoring African Food and Agricultural Policies (MAFAP) (2013)
CIDIN	Farmer data, cost, certification	CIDIN and Solidaridad, The Impact of Coffee Certification on Smallholder Farmers in Kenya, Uganda and Ethiopia (2014)
Other	Farmer data	USDA, GAIN Report: Coffee, Kenya (2016); Kenya Coffee Directory (2012); ICO, Sustainability of the coffee sector in Africa (2015)
	Farmer data, market data, cost	Bagal et al, Study on the potential of marketing of Kenyan Coffee, European Commission(2013)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)
	Farmer data, market data, price	Report of the National Task Force on Coffee Sub-Sector Reforms (2016)



# NICARAGUA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs, supply chain	Stakeholder interviews (2017); TechnoServe implementation project data (2016)
Enveritas	Costs, farmer data	Stakeholder interview (2017)
CENAGRO	Farmer data	CENAGRO census (2011)
Other	Farmer data, market data, yield	USDA, GAIN Report: Coffee, Nicaragua (2016); CIAT, CIAT research on improving livelihoods of smallholder coffee producers in Nicaragua (2015)
	Yield, price, costs	CIDIN, How Standards Compete: Comparative impact of coffee certification in Northern Nicaragua (2010)
	Market data, yield, costs	Haggar J. et al, Environmental-economic benefits and trade-offs on sustainably certified coffee farms (2017); Soto, G. et al, Environmental and socioeconomic impact of organic coffee certification in Central America as compared with other certification seals (2012)
	Farmer data, market data, yield, costs	Montagnon, C., Production costs and profitability of coffee growing: A synthetic review (2016)
	Yield, supply chain	FUNIDES, Program to improve productivity of coffee (2012)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# PERU



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs	Stakeholder interviews (2017); TNS project data (2017)
COINCA	Farmer data, market data, yield, price, costs	Stakeholder interview (2017)
Perhusa	Farmer data, market data, yield	Stakeholder interview (2017)
Fair Trade USA	Farmer data, market data, yield, costs	Cost of Sustainable Production: An overview of farm-level production analyses in Latin America (2017)
Other	Farmer data, market data, yield	USDA, GAIN Report: Coffee, Peru (2017)
	Price	FAO Price Statistics (2016)
	Market data, yield, costs	Direccion Regional de Agricultura Huanuco (2016)
	Price, certification	Tuinstra, A. and Deugd, M., Rainforest Alliance Certification in Coffee Production: An analysis of Costs and Revenues in Latin America 2010-11 (2011)
	Farmer data	National Agricultural Census (2012)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)

# TANZANIA



Organization	Data inputs	Detailed references
Agri-Logic	Farmer data, market data, yield, price, costs, supply chain	African Coffee Sector: addressing national investment agendas on a continental scale, Agri-Logic and GCP (2016)
Enveritas	Farmer data, yield, costs	Stakeholder interview (2017)
Tanzania Coffee Board	Farmer data, market data, supply chain	Stakeholder interview (2017)
Other	Farmer data, yield	USDA, GAIN Report: Coffee, Tanzania (2017)
	Farmer data, market data, yield, costs	NORC at the University of Chicago, Coffee Partnership for Tanzania (CPT) (2015); Coffee Partnership for Tanzania (CPT) Baseline Survey: Data Analysis and Findings (2013)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)
	Farmer data, market data, yield	Hans R. Neumann Stiftung, Quantitative Assessment of the Food-Cash-Crop Approach of HRNS Tanzania in 2015/16 (2017)

# UGANDA



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs, supply chain	IDH and TechnoServe, Uganda: A business case for sustainable coffee production (2013); Stakeholder interviews (2015)
Agri-Logic	Farmer data, market data, yield, price, costs	African Coffee Sector: addressing national investment agendas on a continental scale, Agri-Logic and GCP (2016)
USAID	Market data, yield, cost	Feed the Future Uganda Commodity Production and Marketing Activity: Scaling out tested and proven interventions by strengthening partnerships to better serve farmers in Uganda (2016); stakeholder interview (2017)
Enveritas	Farmer data, yield	Stakeholder interview (2017)
Other	Farmer data	USDA, GAIN Report: Coffee, Uganda (2016)
	Price premiums	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)
	Farmer data, market data	UCDA Database (2016)
	Farmer data	Development of Inclusive Markets in Agriculture and Trade, Kilimo Trust (2012)

# VIETNAM



Organization	Data inputs	Detailed references
TechnoServe	Farmer data, market data, yield, price, costs, supply chain	IDH and TechnoServe, Vietnam: A business case for sustainable coffee production (2014)
Hanns R. Neumann Stiftung	Farmer data, market data, yield, price, costs	Stakeholder interview (2017)
Other	Farmer data	USDA, GAIN Report: Coffee, Vietnam (2017)
	Market data	Ministry of Industry & Commerce, Report on the Import-export situation in 2017 (2017)
	Costs	WASI, Technical Norms for 1 ha of mature coffee (2017)
	Farmer data	Department of Crop Production under the Ministry of Agriculture and Rural Development (DOCP), "Existing situation and some solutions for sustainable coffee production" (2017)
	Certification	ICO, The State of Sustainability Initiatives Review 2014 – Standards and the Green Economy (2014)
	Farmer data	World Bank, Trade facilitation, value creation, and competitiveness: Policy implications for Vietnam's economic growth (2013)
	Supply chain	World Economic Forum, Achieving the New Vision for Agriculture: New Models for Action (2013)



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### **About the Global Coffee Platform**

The GCP is the leading facilitator of the coffee sector's journey towards sustainability. The GCP improves the livelihoods, ecosystems and resilience of coffee farming communities and the sector as a whole by enabling producers, international roasters, governments, traders, and NGOs to align and multiply their efforts and investments, collectively act on local priorities and critical issues, and grow and scale successful sustainability initiatives across the coffee world.

### **About TechnoServe**

TechnoServe works with enterprising men and women in the developing world to build competitive farms, businesses and industries. A nonprofit organization operating in 29 countries, TechnoServe is a leader in harnessing the power of the private sector to help people lift themselves out of poverty. By linking people to information, capital and markets, we have helped millions to create lasting prosperity for their families and communities.