

Kellogg-Morgan Stanley
Sustainable Investing Challenge



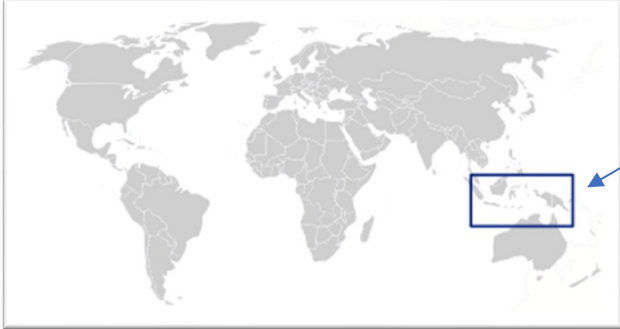
Cluster Cafe

Northwestern | Kellogg

Agenda



Papua New Guinea



Agri-based nation

22%
of PNG's GDP
comes through
Agriculture



High Poverty

85%
of population is
dependent on
agriculture – coffee,
cocoa, tea

High Dependence

40%
of the 9.2 Million
PNG population
depends on Coffee
farming



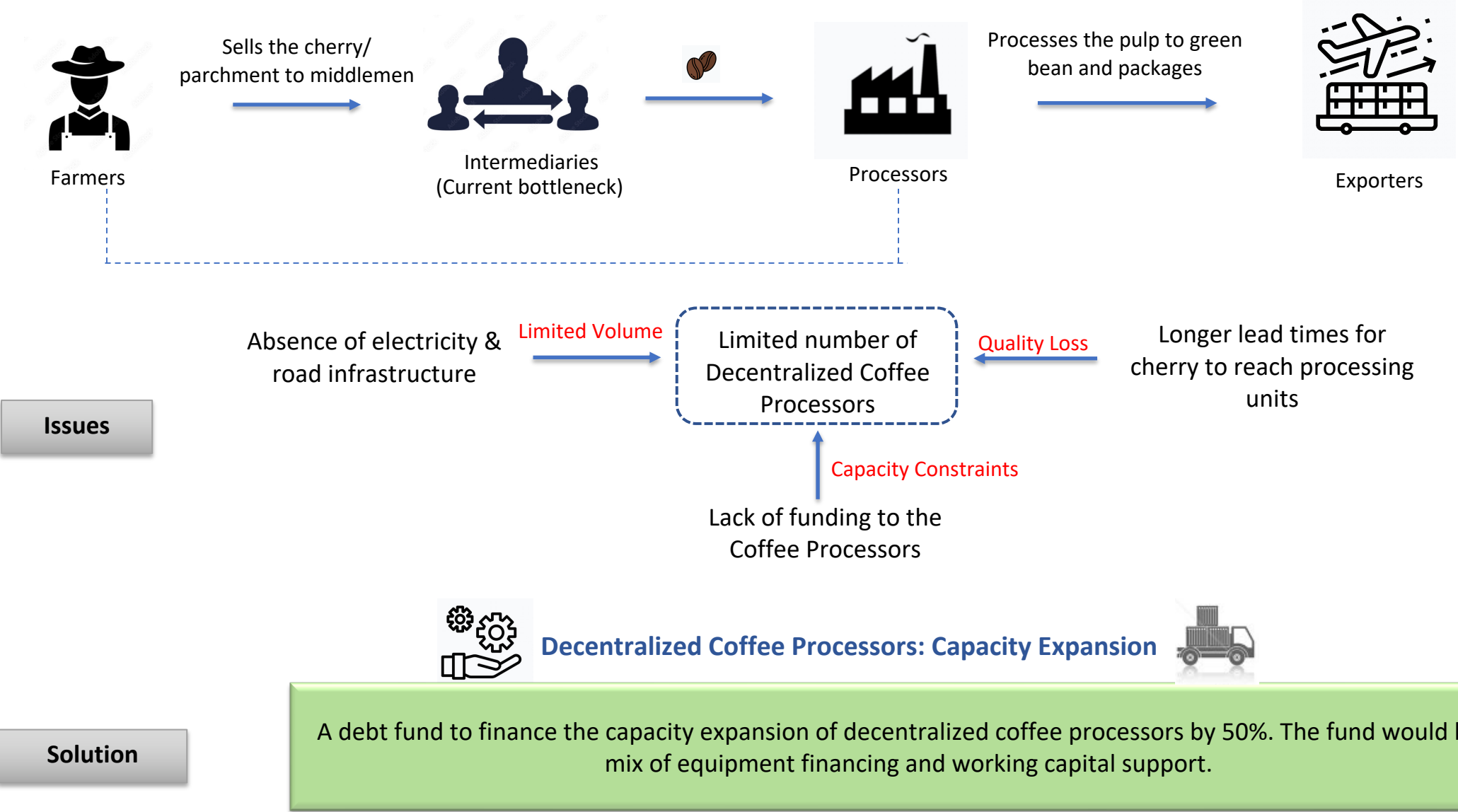
Progressive impact

85%
of coffee is produced
by smallholder
farmers



PNG has ideal terroir for growing differentiated, highest quality specialty coffee

Challenge



Practical challenges in Equipment Financing & Our Innovation

Major Challenges



Lack of Data availability:

Unsophisticated supply chains in emerging markets hinder availability of reliable revenue, P&L data for processors



Ensuring Social Benefit:

Social and monetary benefits often do not get transferred to farmers (failure of trickle-down theory)



Decentralized Market Accessibility:

Decentralized processors are unable to reach out to global buyers. Further, leading buyers



Need for Differentiation:

The processors compete with existing exporters of coffee, with relationships with existing exporters



Interest rate:

Hard to pay 12-15% interest rates to smaller SMEs



Solution: Enablement Unit

We propose setting up a central unit, which

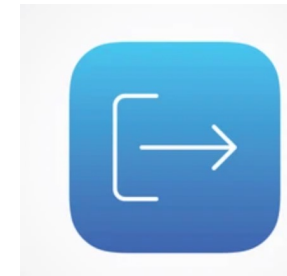
- centralizes, consolidates the 20 processors
- vertically integrates the value chain
- provides technical value additions



By setting up 2 centralized units:

Certification Enablement Unit:

- A single expert team setup to manage certifications for all 20 processors.
- Target certifications include Organic and UTZ



Export Enablement Unit

- A single firm under which the processors export
- Easier to maintain relationships with buyers

Value-added Debt fund to provide value-chain financing and Enablement Services

Enablement Unit

A centralized unit is created to enable smaller processors by

Provide consolidated services out of bounds for them | Focus on technical & complex value-added services



Certification Unit

Context:

- Most coffee in PNG is naturally produced, thus Organic and RFA certifications are easy to get
- Small processors have closer engagement with farmers, placing them uniquely to work on certification

Solution:

- Set up a small team responsible for managing certifications for all farmers working with the processors (80% of volume)

Benefits:

- Differentiators: Use the processors' relations with farmers to get certification; a big differentiator against bigger players
- Sustainable/ Climate resilient supply chain
- High Profits: Very high demand for certified coffee in premium segment. (Very high return on the investment)



Export Unit

Context:

- Decentralized processors don't have the technical knowhow to maintain buyer's quality requirement & manage shipment documents
- Smaller processors do not have access to global markets

Solution:

- Set up an exporting company via which all processors export

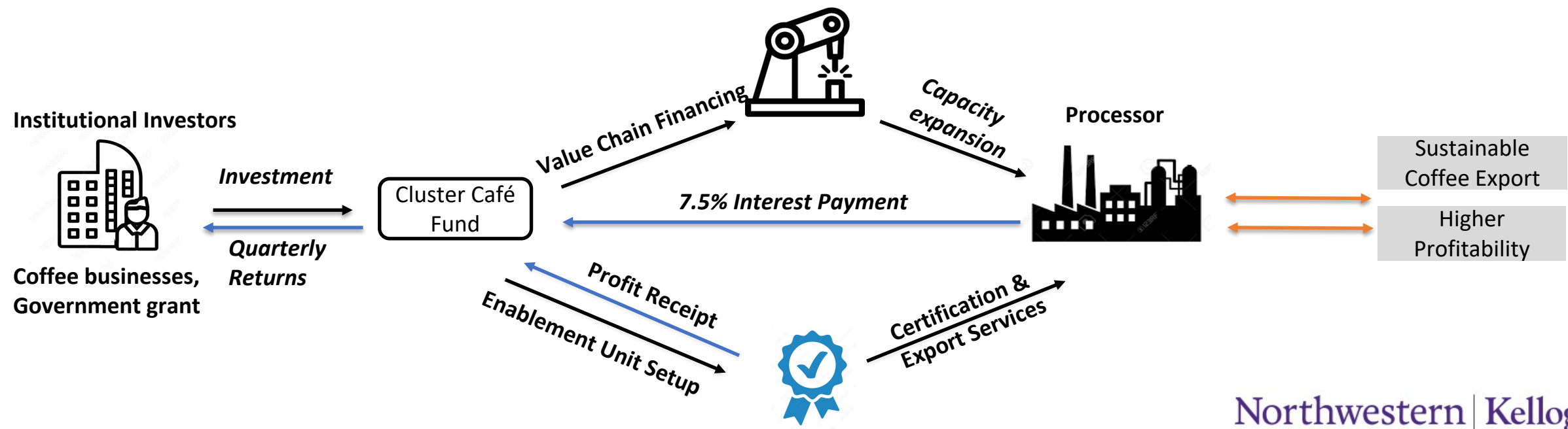
Benefits:

- Counterparty Risk Mitigation: As all export payments are received first by the export unit, payment/fees deductions are done before forwarding the processor's share
- Currency Risk Mitigation: Payments received in USD
- Market Access: Consolidation of processors provides access to even larger buyers, like Starbucks, Nestle
- Guaranteed Social Benefit: Farmer transfers are made directly from the export payments received

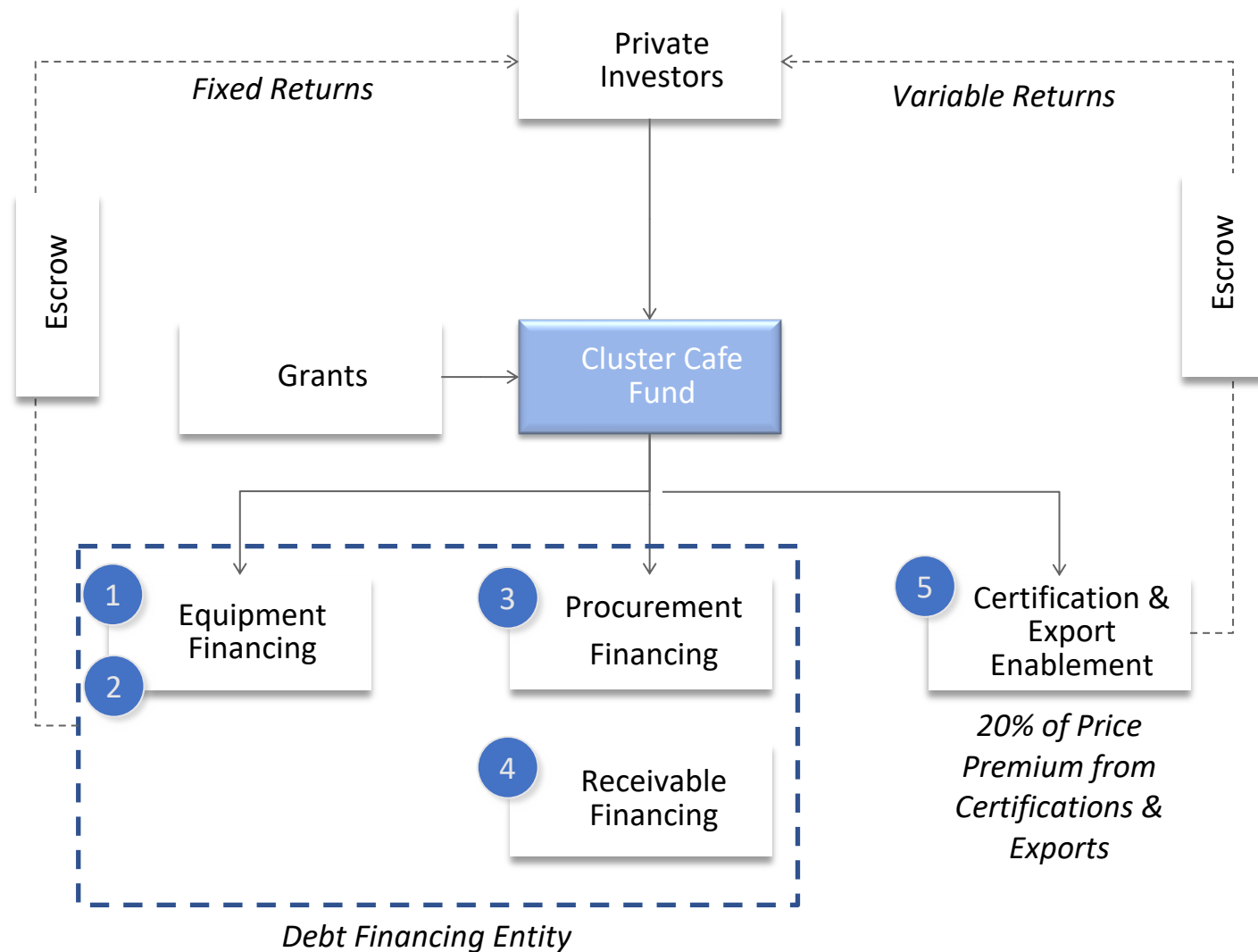
Enablement unit: increases profitability of farmers & processors, and subsidizes the interest rate charged by the fund by acting as a financial & social risk mitigator

Fund Snapshot

Asset class	Value-Added Debt Fund
Fund Type	Closed-end
Fund horizon	10 years
Target geography	Papua New Guinea: Eastern Highlands, Simbu, Jiwaka Provinces
Target Portfolio	20 mid-scale decentralized processors
Fund size	\$20M (Approx.)
Collateral	90% collateral by value expected



Fund Structure & Key Financing Terms

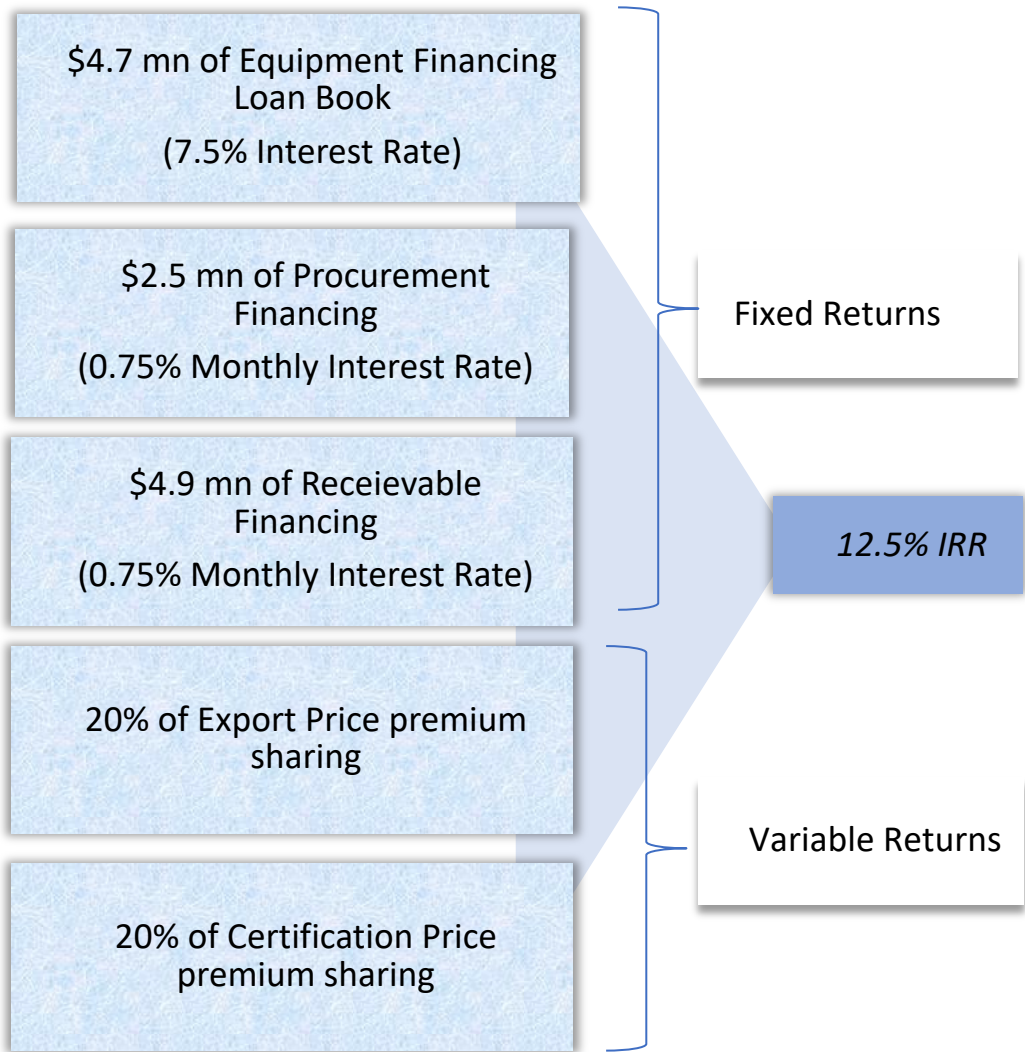


Key Financing Terms

- ➔ 1 Sale & Leaseback for Processing Equipment
- ➔ 2 Equipment Financing @ 7.5% Interest Rate, 10- Year Tenure, 90% Loan to Value
- ➔ 3 Procurement Financing @ 0.75% Monthly Int. Rate; 6 Month Tenure, 50% of Total Value
- ➔ 4 Receivable Financing @ 0.75% Monthly Int. Rate; 2 Month Tenure; 90% of Invoice Value
- ➔ 5 Certification & Export Enablement to command 20% of the Pricing Premium

Multiple Sources of Returns for Investors

Target Investors



Coffee Buyers
<ul style="list-style-type: none">- Such as Starbucks & Nestle- KDP invests in similar projects in the form of grants
Government & International Agencies
<ul style="list-style-type: none">- Government of PNG and World Bank are investing in a project, PPAP- PPAP: Investment to improve coffee incomes to alleviate poverty
Development Agencies
<ul style="list-style-type: none">- USAID and Asian Development Bank invested in projects to increase coffee income for social equity
Institutional Investors
<ul style="list-style-type: none">- Endowment Funds and other investors

Risk Assessment & Mitigation Strategies



Pre-Debt Assessment

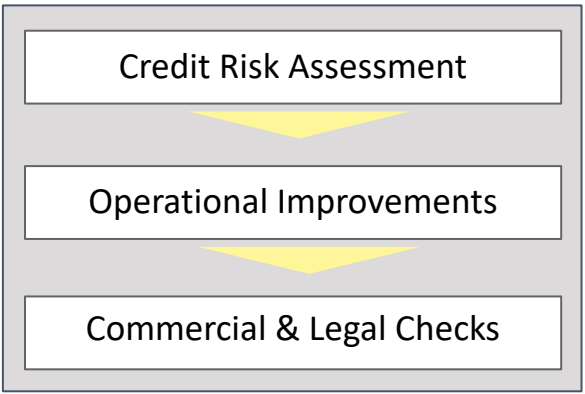
Financial Diligence

- Revenues (Pricing / Any exports)
- Value of Current Machinery
- Income tax returns
- Working Capital Cycle
- Quantitative data Assessment

Operational & Legal Diligence

- # of Farmers/ Regions Served
- Processing Volume / Capacity
- Runtime & Breakdowns
- Proprietor Background verification
- Ownership & Legal History
- Qualitative Assessment data sharing

Data Insights



Selection of 25 Processors
basis Credit Profiling

Post-Debt Assessment

Credit Risk Mitigation

- Minimum 3 Year of Vintage
- Sale & Leaseback
- Sufficient Collateral
- Revenues & Cash Flow Audit

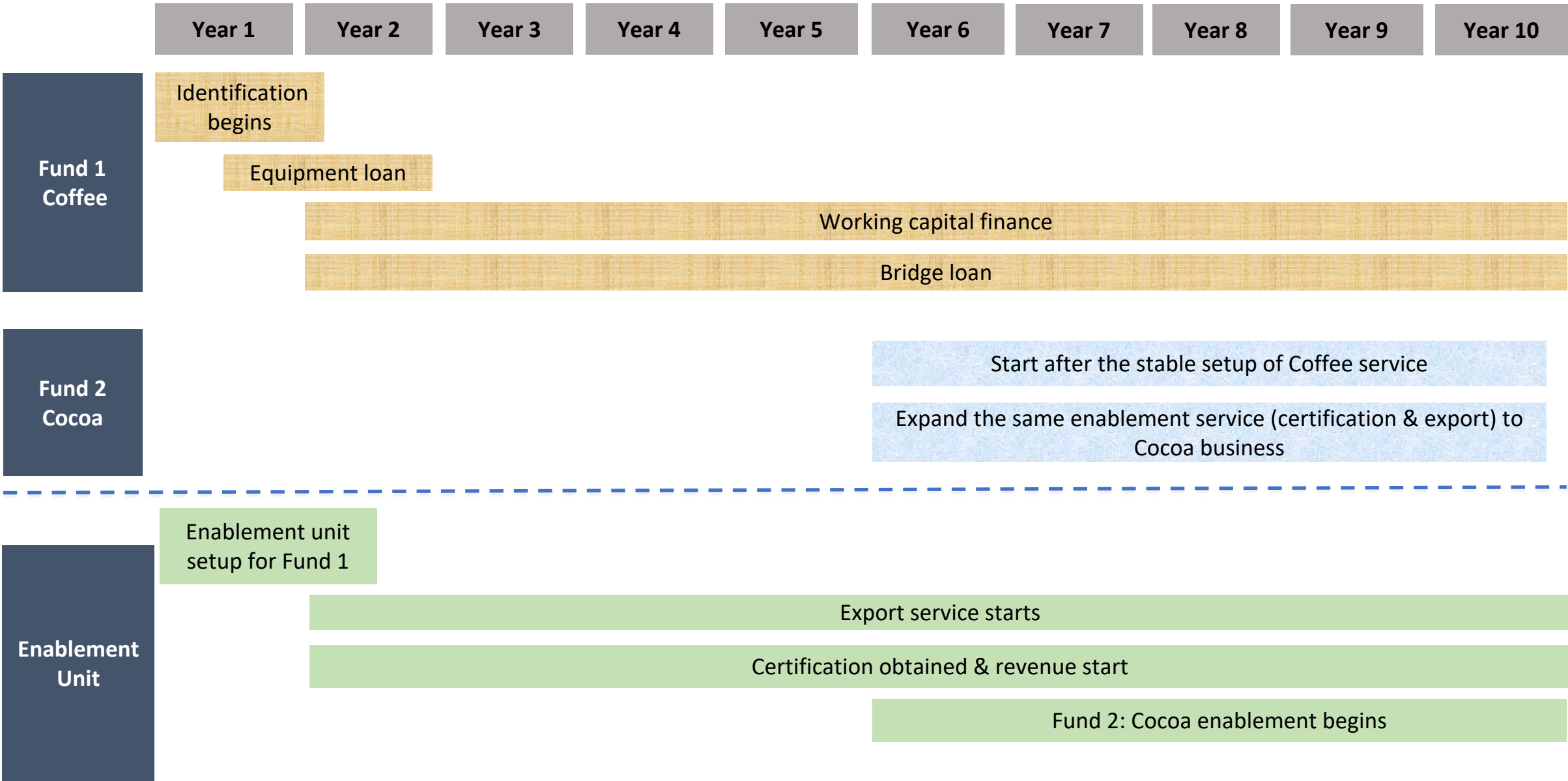
Operational Risk Mitigation

- Licensing by Coffee Board
- Export Grade Certifications
- Technical Support
- Export Market Development

Other Risk Mitigation

- Work with PNG Coffee Board
- Hedge Currency Risks
- Sell to Creditworthy Partners
- Contract Excess Inventory

Execution Roadmap



Stakeholder & Social Returns

Stakeholder Return



Farming Households

Financial benefits

- Production increase: 15%
- Income Increase: 30%+ (from year 3)

Social Benefits

- Climate resistant Supply chain, Increased farmer power

Small Processors

Financial benefits

- Economies of Scale: increased net profit margin
- Premiumization Support: Certification & Export
- Income Increase: 54%

Social benefits

- Wider value participation
- Improved farmer relations

Investors

Financial benefits

- High Fixed annual return: 7.5%
- Net returns: 12%

Social benefits

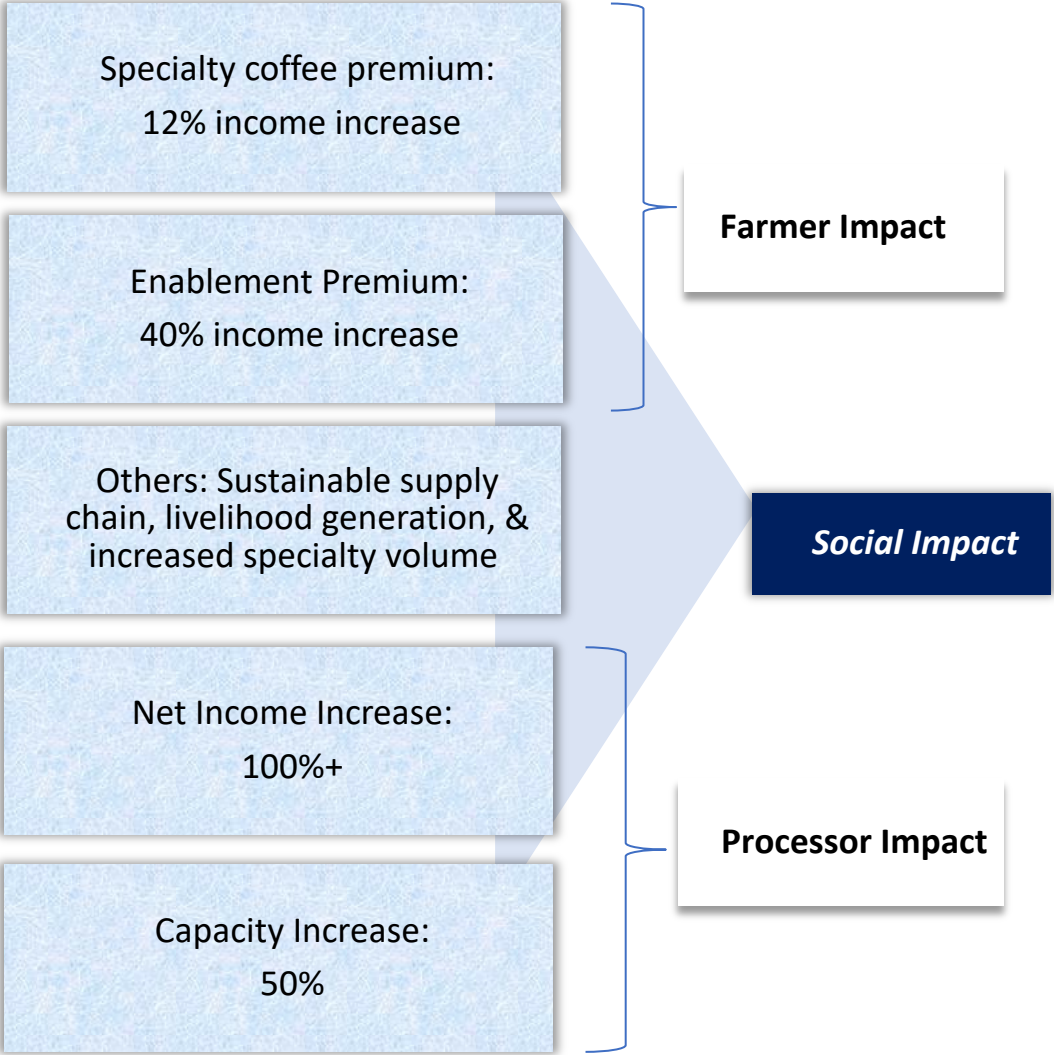
- Farmer transfer ensured by fund
- Sustainability coffee farming through certification

Economy (PNG)

- Coffee is one of the largest exported commodities and significantly impacts PNG economy
- Papua New Guinea has a focus to increase specialty volume and increase smallholder farmer power



Social Returns



Team Cluster Cafe

Ishan Pasrija



Coffee Business, Papua New Guinea

- Headed the coffee business for Olam (15% market share) in PNG
- Led end-to-end supply chain from procurement, processing to export
- Worked with 10k farmers in PNG and in social impact and agriculture in India

Supriya Kashyap



Consumer Products Sustainable Agriculture

- Worked with 100+ farmers in 12 villages in India to drive sustainability in Agriculture
- Managed revenue growth for world's largest CPG company

Shubham Narayan



Investment Professional Early & Growth Stage

- Raised funding for an agri-tech platform
- Managed a ~\$300M fund focused on consumer plays such as food and agri impact investing plays

Agni Tripathi



Consumer Products Channel Strategy

- Launched premium coffee brand for Indian market
- Implemented procurement strategy for multiple agri commodities, maximizing farmer income and business outcome

Appendix

Advisor & Mentors

- **Steven Tumai** - GM, Coffee Industries corporation, Coffee board
- **Charles Dambui** - CEO, Coffee Industries corporation, Coffee board
- **Febri Adetiya** - Manager, Outspan PNG Ltd., Coffee, exporter
- **Mohit Keshwani** - CFO, Outspan PNG Ltd. Coffee, exporter
- **Bill Humphry** - PPAP, World Bank-Coffee Industries corporation
- **Samuel Raffan** - Sirigine Coffee, specialty coffee processor
- **Mark Munnul** - Kosem Coffee, Small Processor
- **Sero Bebes** - Beser Coffee, Specialty coffee Processor
- **Marie** - Manager, BSP Bank
- **Levi** - Manager, BSP Bank
- **Adnan Falak** - MDF, Australian Aid
- **Barbara Schmid** – Starbucks, Sustainability CAFÉ practices
- **Basavaraj Mashetty**- Cocoa business, Indonesia, Olam

Equipment Costs

Equipment Financing	Unit	Value
Electronic Weight	USD	5,000
Storage House	USD	20,000
Pulping Machinery	USD	43,900
Drying Beds	USD	9,000
Greenhouses	USD	18,000
Canvas	USD	4,000
Dryer	USD	35,000
Huller/Polisher	USD	75,000
Packaging Machine	USD	28,000
Storage House	USD	10,000
Fermentation Tank	USD	15,000
Total	USD	2,62,900
Additional Coffee Demand Catered	MT	100

Exporter Responsibilities Matrix

Exporter Responsibility					
Department	Exporter jobs:	Capital Intensity	Complexity	Time/Money Requirement	Responsibility
Quality Analysis	Quality Management	Low	High	Low	Fund
Proc Plan	Processing/Blending Plan	Low	Medium	Low	Fund
Processing	Blending Process to match Quality	High	Low	High	Processor
Processing	Packaging	Low	Low-Medium	High	Processor
Processing	Logistics: to port	Low	Low	High	Processor
Quality Analysis	Final Quality check	Low	High	Low	Fund
Shipping Documentation	Export Documentation	Low	High	Low	Fund
Shipping Documentation	Certification Management	Low	High	Low	Fund
Financial	Escrow Account	Low	High	Low	Fund

Export Margin/Premiums

Export Enablement	Unit	Value	
% of Specialty Targeted Market for Certification	%	90%	
Specialty Coffee Volume for Certification	MT / yr	5,400	
Specialty Coffee Pricing Premium - Exports	Unit	Value	% Split
Coffee Grade:			
Y1 (Average)	USD/MT/ yr	110	5%
X	USD/MT/ yr	220	15%
A (Avg Specialty coffee)	USD/MT/ yr	331	30%
Specialty	USD/MT/ yr	441	50%
Average Premium	USD/MT/ yr	358	
Total Annual Premium	USD mn	1.9	

Export Enablement Costs

Expenses for Export Enablement	Unit	# of FTEs	Salary / FTE	Total
Q-grader	USD/ yr	1	50,000	50,000
Quality Supervisor	USD/ yr	1	11,429	11,429
Quality Assistants	USD/ yr	5	5,257	25,714
Processing Planner	USD/ yr	2	14,286	28,571
Processor Relationship Liason	USD/ yr	1	32,000	32,000
Shipment Manager	USD/ yr	1	17,143	17,143
Shipment Assistant	USD/ yr	1	8,571	8,571
Total Salary	USD/ yr			1,73,429
Other Expenses for Export Enablement	Unit	Total		
Rental	USD/ yr	36,000		
Quality equipment	USD/ yr	6,000		
Laptops	USD/ yr	2,100		
Electricity	USD/ yr	6,000		
Water	USD/ yr	2,400		
Stationery	USD/ yr	2,400		
Car	USD/ yr	12,000		
Fuel	USD/ yr	15,000		
Total Other Expenses	USD / yr	81,900		
Total Export Enablement Opex	USD / yr	2,55,329		
Total Fund Expenses over 10-Year Horizon	USD mn	2.6		

Certification Premiums

Certification Market Size	Unit	Value	
% of Specialty Targeted Market for Certification	%	80%	
Specialty Coffee Volume for Certification	MT / yr	800	4,
Specilaty Coffee Pricing Premium - Certifications	Unit	Value	% Split
Cerrtifications			
UTZ	USD/MT/ yr	265	60%
Organic	USD/MT/ yr	441	20%
Café Practice	USD/MT/ yr	331	10%
Double Certification	USD/MT/ yr	102	1, 10%
Average Premium	USD/MT/ yr	390	
Total Annual Premium	USD mn	1.9	

Certification Enablement Costs

Expenses for Certification	Unit	# of FTEs	Salary / FTE	Total
Project Leader	USD/ yr	1	35,000	35,000
Field Supervisors	USD/ yr	4	11,429	45,714
Field Assistants	USD/ yr	10	2,857	28,571
Farmer Support	USD/ yr	40	514	20,571
Data Lead	USD/ yr	1	5,714	5,714
Data Support	USD/ yr	2	2,857	5,714
Total Salary	USD/ yr			1,41,286
Other Expenses for Certification	Unit	Total		
Rental	USD/ yr	18,000		
Vehicles	USD/ yr	25,000		
Bikes	USD/ yr	2,000		
Laptops & Equipment	USD/ yr	1,440		
Maintenance	USD/ yr	7,500		
Electricity	USD/ yr	3,600		
Water	USD/ yr	2,400		
Stationery	USD/ yr	2,400		
Training Material	USD/ yr	5,000		
Fuel	USD/ yr	37,500		
Audit	USD/ yr	45,000		
Total Other Expenses	USD / yr	1,49,840		
Total Certification Opex	USD / yr	2,91,126		
Total Fund Expenses over 10-Year Horizon	USD mn	2.9		

Farmer Income Increase

Farmer												
Income Change	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Traditional Income	USD		1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Certification Premium	USD				78.04	156.09	156.09	156.09	156.09	156.09	156.09	156.09
Production Increase	USD			18.00	36.00	54.00	72.00	90.00	108.00	126.00	144.00	162.00
Export Premium	USD			161.21	161.21	161.21	161.21	161.21	161.21	161.21	161.21	161.21
Specialty Income Premium	USD			145.50	145.50	145.50	145.50	145.50	145.50	145.50	145.50	145.50
Total Income	USD	0	1,200	1,524	1,620	1,716	1,734	1,752	1,770	1,788	1,806	1,824
Income Increase (Avg)				27%	35%	43%	45%	46%	48%	49%	51%	52%

Processor Income Increase

Processor												
PnL	Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Volume	MT	200	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00
Sales Revenue	USD mn	\$11,02,300	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450	\$16,53,450
Coffee procurement	USD mn	9,92,070	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105	14,88,105
Gross Margin	USD mn	1,10,230	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345	1,65,345
Electricity	USD mn	2,205	3307	3307	3307	3307	3307	3307	3307	3307	3307	3307
Fuel	USD mn	1,323	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Labour	USD mn	6,614	7937	7937	7937	7937	7937	7937	7937	7937	7937	7937
R&M	USD mn	2,205	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
Packging Material	USD mn	8,818	7937	7937	7937	7937	7937	7937	7937	7937	7937	7937
Farmer Schemes	USD mn	6,614	11905	11905	11905	11905	11905	11905	11905	11905	11905	11905
Freight Charges	USD mn	6,614	6614	6614	6614	6614	6614	6614	6614	6614	6614	6614
Bad Debt	USD mn	4,409	6614	6614	6614	6614	6614	6614	6614	6614	6614	6614
Insurance & Others	USD mn	8,818	6614	6614	6614	6614	6614	6614	6614	6614	6614	6614
Interest Payment	USD mn		40,067	51,228	51,228	51,228	51,228	51,228	51,228	51,228	51,228	51,228
Certification Premium	USD mn			9,365	18,730	18,730	18,730	18,730	18,730	18,730	18,730	18,730
Export Premium	USD mn		4,683	12,487	18,730	18,730	18,730	18,730	18,730	18,730	18,730	18,730
Profit before Tax	USD mn	62,611	75,066	81,074	96,683	96,683	96,683	96,683	96,683	96,683	96,683	96,683
Taxes	USD mn	18,783	22,520	24,322	29,005	29,005	29,005	29,005	29,005	29,005	29,005	29,005
Net Profit	USD mn	43,827	52,546	56,752	67,678	67,678	67,678	67,678	67,678	67,678	67,678	67,678
Income Increase Avg			20%	29%	54%	54%	54%	54%	54%	54%	54%	54%

Fund Returns

Consolidated P&L		Unit	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Interest Income - Equipment Financing	USD mn			0.35	0.33	0.30	0.27	0.24	0.21	0.17	0.13	0.09	0.05
Interest Income - Procurement Financing	USD mn			0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Interest Income - Invoice Financing	USD mn			0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Income from Premium Sharing - Export Enablement	USD mn			0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Income from Premium Sharing - Certification	USD mn				0.30	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Total Revenue	USD mn			1.60	1.87	2.14	2.11	2.08	2.05	2.01	1.97	1.93	1.89
Opex - Export Enablement	USD mn			0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Opex - Certification				0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Opex - Fund Admin	USD mn			0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Total Opex	USD mn			0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
EBIT	USD mn		-	0.87	1.14	1.42	1.39	1.36	1.32	1.29	1.25	1.21	1.16
Income Tax	USD mn			0.26	0.34	0.42	0.42	0.41	0.40	0.39	0.37	0.36	0.35
PAT	USD mn			0.61	0.80	0.99	0.97	0.95	0.93	0.90	0.87	0.84	0.81
FCFF	Unit		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
EBIT	USD mn		-	0.87	1.14	1.42	1.39	1.36	1.32	1.29	1.25	1.21	1.16
Less: Income Tax	USD mn		-	(0.26)	(0.34)	(0.42)	(0.42)	(0.41)	(0.40)	(0.39)	(0.37)	(0.36)	(0.35)
NOPLAT	USD mn		-	0.61	0.80	0.99	0.97	0.95	0.93	0.90	0.87	0.84	0.81
Less: Equipment Financing	USD mn		(4.73)	-	-	-	-	-	-	-	-	-	-
Free Cash Flows	USD mn		(4.73)	0.61	0.80	0.99	0.97	0.95	0.93	0.90	0.87	0.84	0.81
IRR	%		12.5%										

Cash Flow

Cluster Café P&L – Cash Flows (USD mn)

