



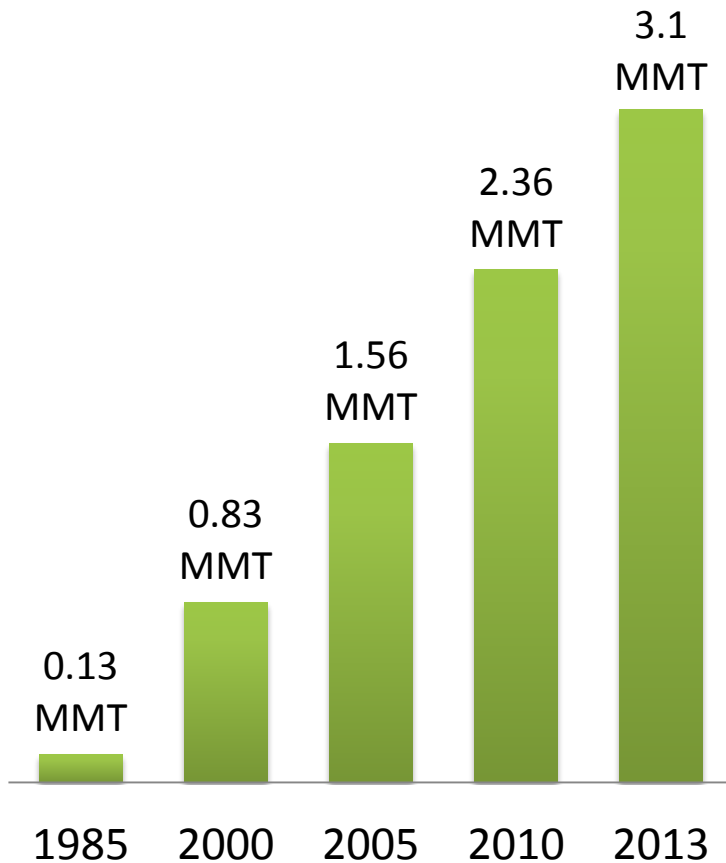
# MECK Fund

**Sustainable Palm Oil Production on Degraded Land**

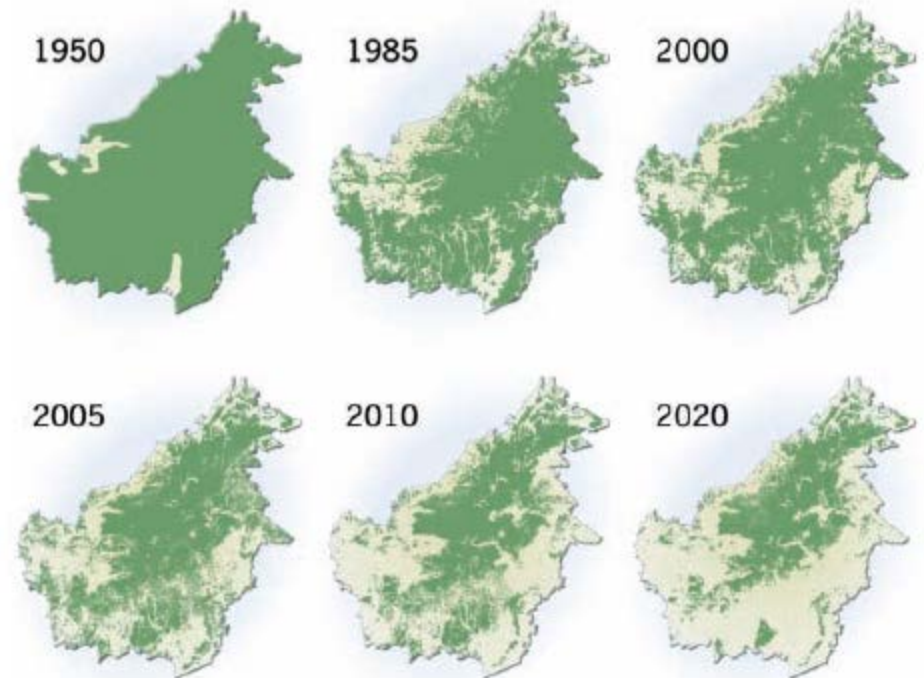
April 2014

# What is the Problem?

## Palm Oil Production, Indonesia Million Metric Tons



## 1.17M ha Deforestation Annually, Indonesia Extent of Deforestation in Borneo (below)



# What is the Problem?

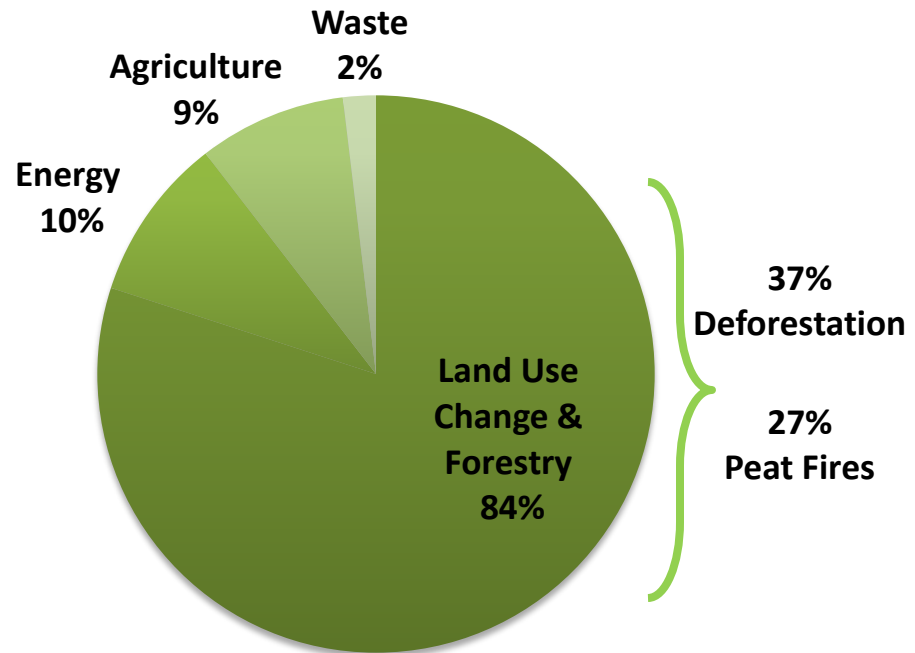
## Biodiversity Loss

1,154 Species Threatened in 2012



## Greenhouse Gas Emissions by Source

2.0 MT CO<sub>2</sub> Per Capita in 2012



# What is the Solution?

## STRATEGY

### WHAT?

Shift to Degraded Land

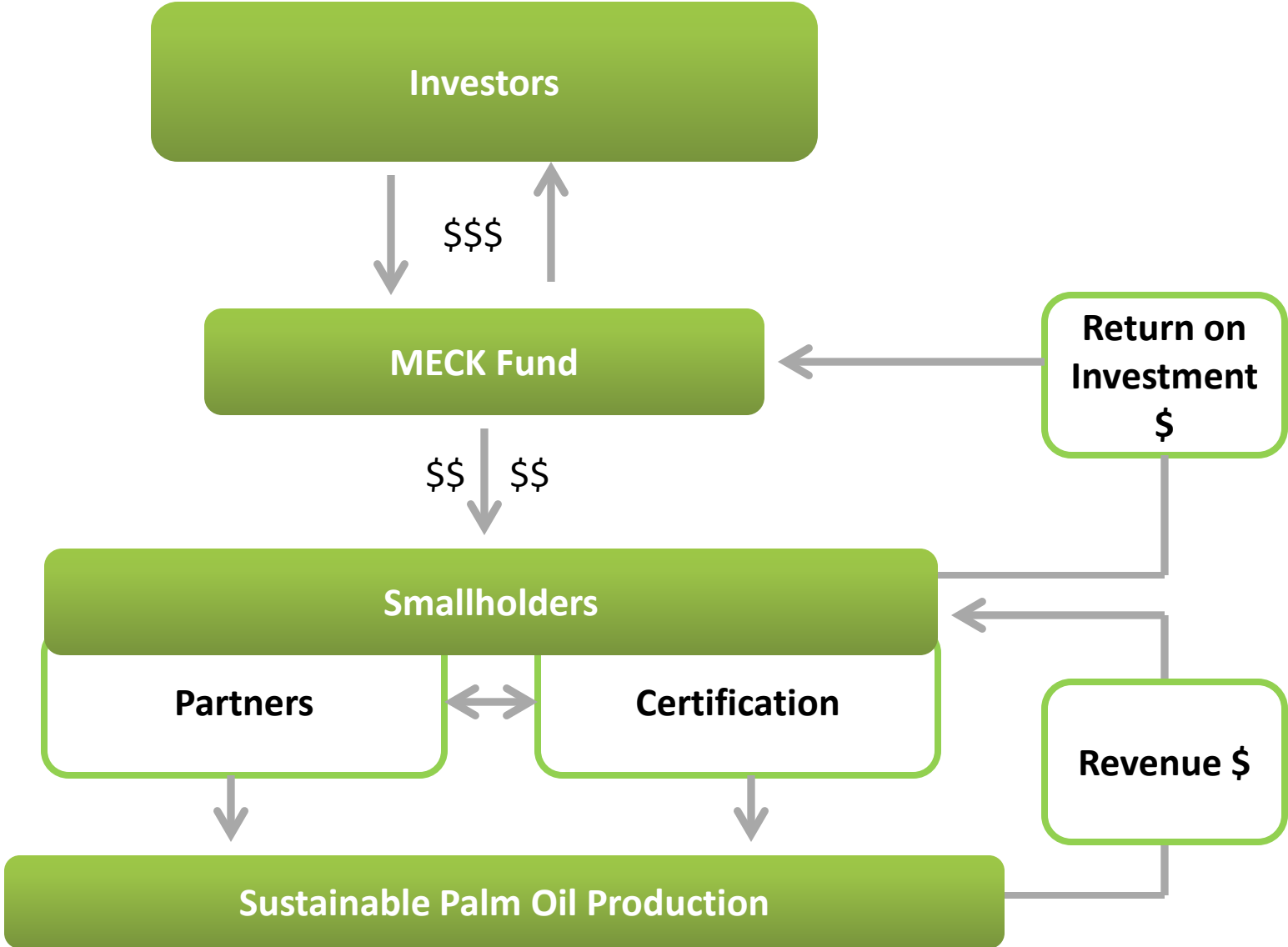
### WHY?

Current Moratorium on New Permits  
Sequester 15 Metric Tons CO<sub>2</sub> /Hectare /Year  
No Additional Land Clearing  
Millions of ha Degraded Land Suitable for Oil Palm

### HOW?

Provide Microfinance Loan  
Best Management Practices  
Risk Management

# How Will the Fund Work?



# Why Are We Choosing This Strategy?

## Research-Based Solutions

Pilot Programs, Independent Studies



**UN-REDD**  
PROGRAMME



## Due Diligence

Degraded Land Database Screening Criteria

Considerations	Screening
Environmental	Carbon Stocks Biodiversity Forest Regeneration Potential
Economic	Agricultural Sustainability Size
Social	Proximity to Infrastructure Risk of Displacement Risk of Loss of Cultural Identity
Legal	Legal Land Status (Zoning) Legal Claims (Permits)

# How Will the Fund Be Implemented?

1

**Negotiate with  
Commercial Partners**

- Transparency
- Local management facilitation
- Certification of sustainable palm oil through ISPO & RSPO

2

**Locate Initial Investors &  
Limited Partners**

- Secure early stage investors
  - Development Agencies
  - Foundations / Family Foundations
  - Private Investors
  - Hedge Funds
  - Corporate Foundations

3

**Fund Qualifying Farmers**

- Identify farmers using degraded land criteria
- Facilitate sustainable farming practices

4

**Track Sustainability &  
Progress**

- Use RSPO Standards
- Global Impact Investing Network IRIS
- Technical & financial education
- Risk mitigation

# Adding to Smallholder Value with Financial and Technical Assistance

## MECK Fund

Education,  
Support,  
Certification,  
Purchase  
Agreement

Capital  
Investment

Working  
Capital  
Investment

Interest  
&  
Profit  
Sharing

**Sustainable Smallholder Community**



# Total Affected Area of 10,000 ha, Fund Size of US\$40M

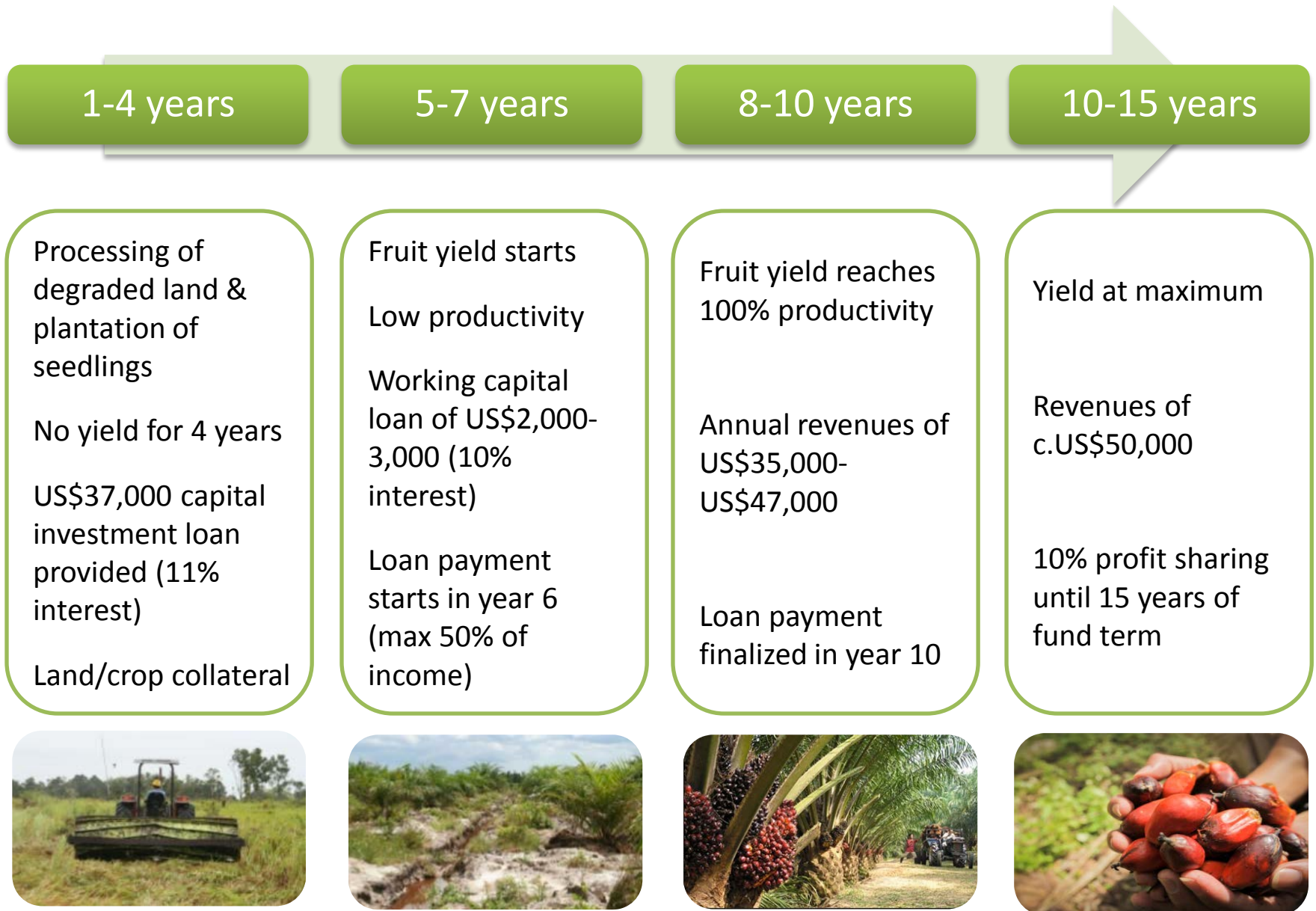
## Investment Approach

- Financing as incentive
- Target 1,000 smallholders
  - ➔ responsible stewards
- Focus on ESG Factors
- Lay down further groundwork for BMPs

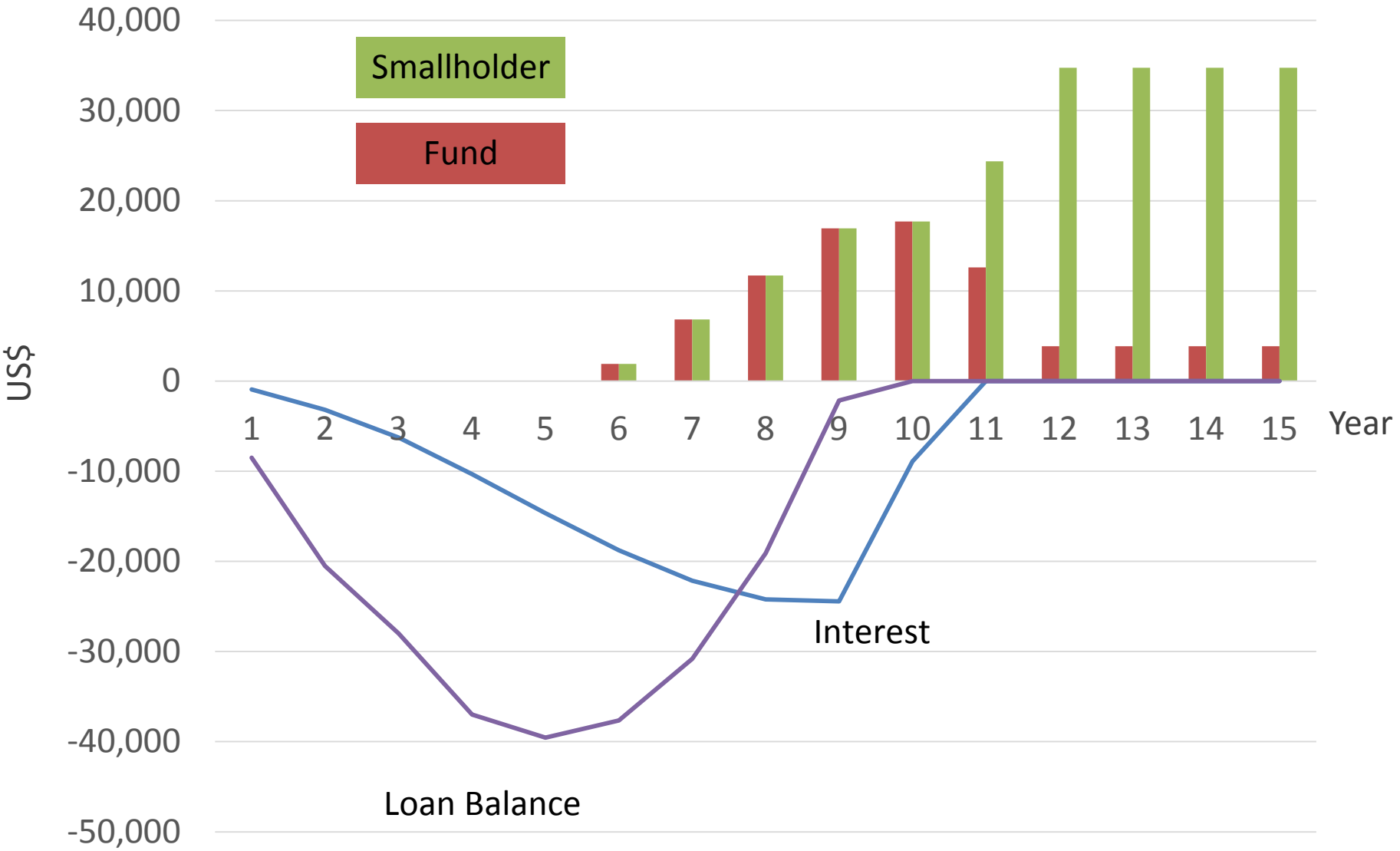
## Fund Structure

- Microfinance loans
- Total fund size of US\$40M
- 15 years term
- Competitive interest rates
- Profit-sharing

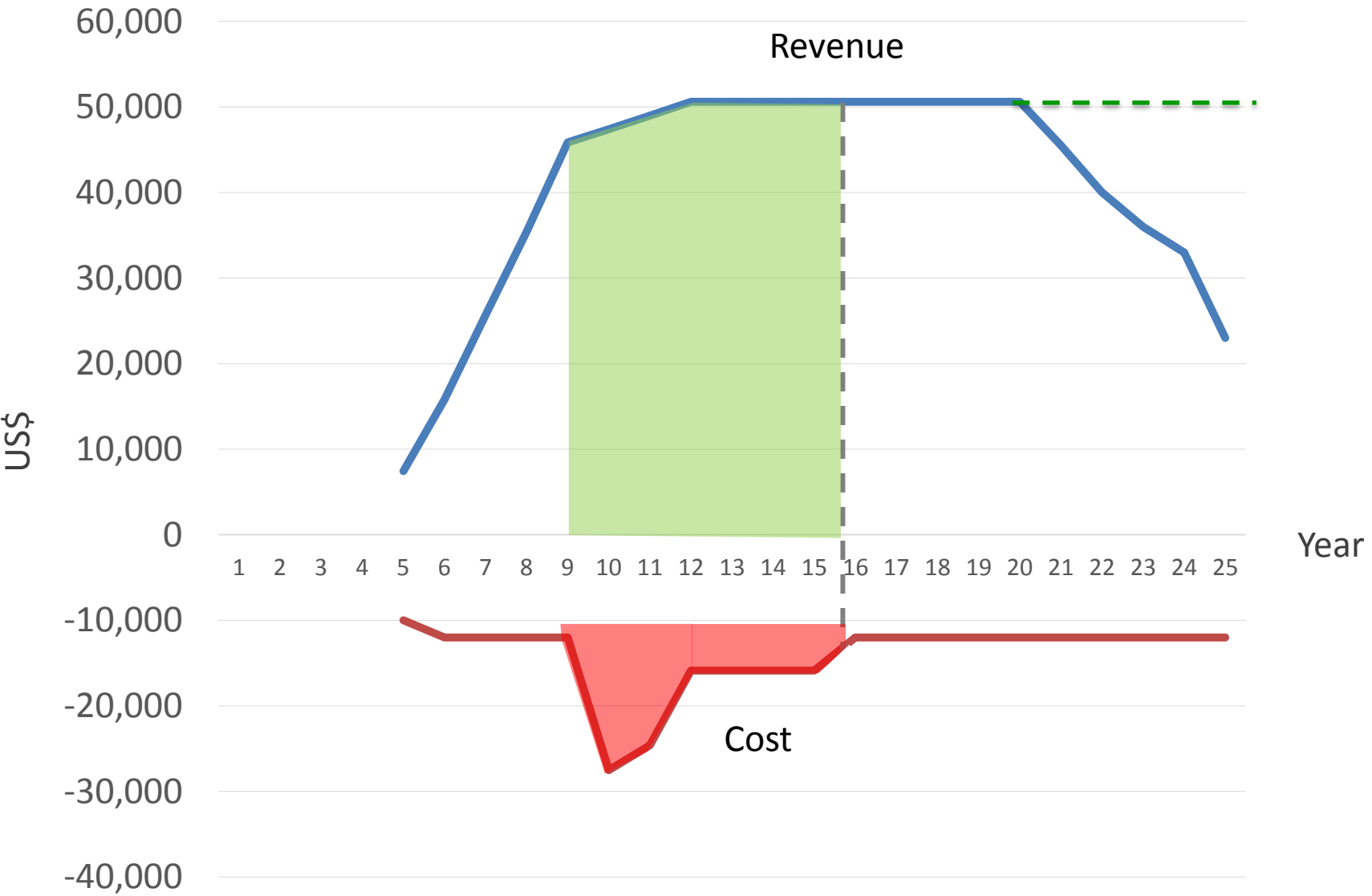
# 15 Years of Collaboration with the Smallholder



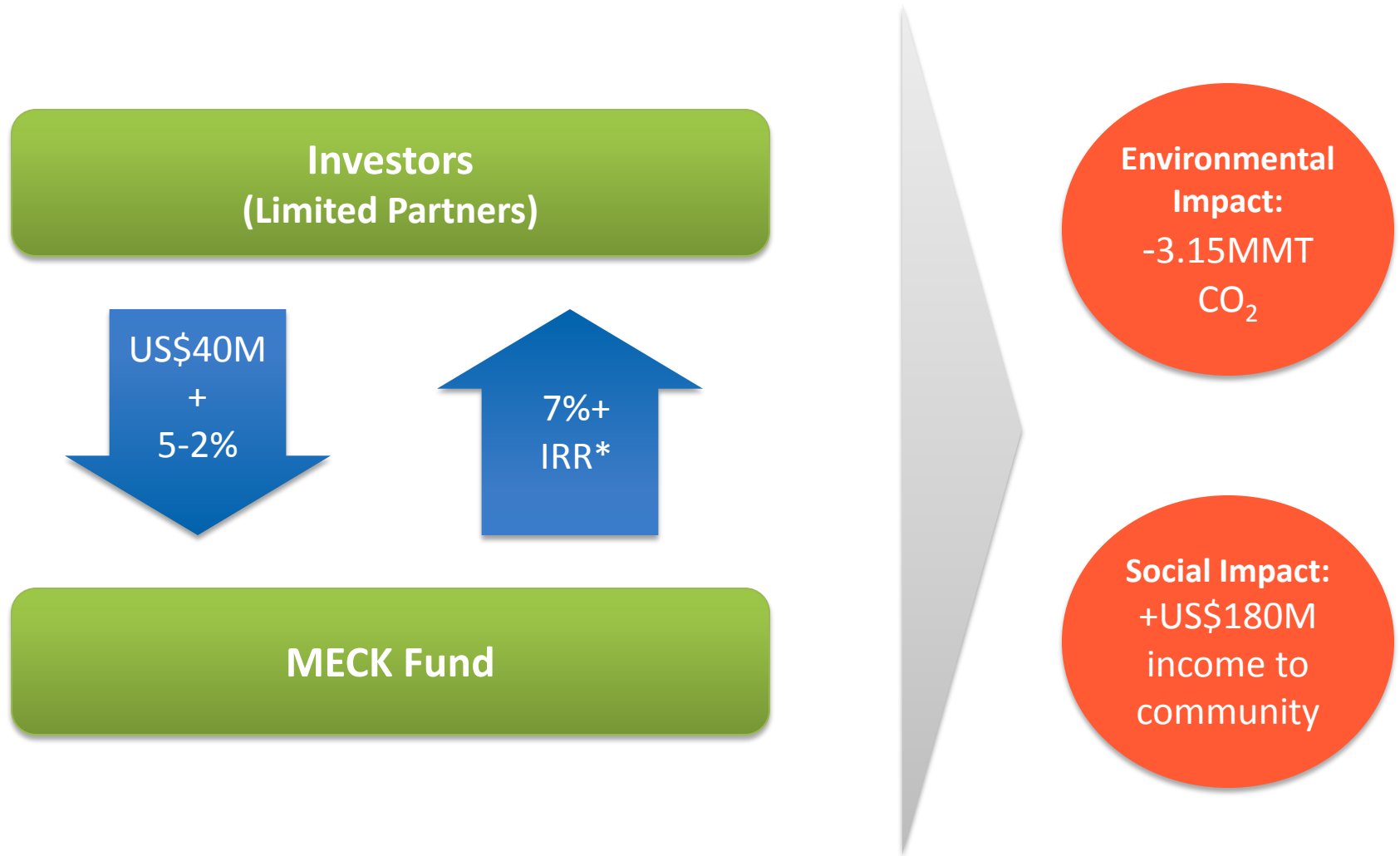
# Business Model – Loan Balance and Proceeds



# Business Model – Smallholder Revenue and Cost Development



# MECK Fund Will Generate 7% IRR for Investors, US\$180M Value for Community & Sequester 3.15MMT CO<sub>2</sub>



\* Upside potential to 9-10% IRR

Questions?

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# Appendix – MECK Fund Financial Model

## Smallholder Forecasted Income Statement

		Year 1-4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Investment capital	US\$	(37,000)											
Working capital loan	US\$		(2,550)	-	-	-	-	-	-	-	-	-	-
Revenue	US\$		7,450	15,806	25,662	35,420	45,876	47,380	48,981	50,600	50,600	50,600	50,600
Yield	tons		46.0	92.0	138.0	184.0	230.0	230.0	230.0	230.0	230.0	230.0	230.0
% productivity	%		20%	40%	60%	80%	100%	100%	100%	100%	100%	100%	100%
Price of CPO / ton	US\$		800	800	800	800	800	800	800	800	800	800	800
Price of KPO / ton	US\$		1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
CPO fruit conversion	%		15.6%	16.9%	18.1%	18.8%	19.4%	20.0%	20.6%	21.3%	21.3%	21.3%	21.3%
KPO fruit conversion	%		3.7%	3.7%	4.1%	4.3%	4.5%	4.6%	4.8%	5.0%	5.0%	5.0%	5.0%
Revenue from CPO	US\$		5,748	12,402	20,004	27,600	35,641	36,800	37,941	39,100	39,100	39,100	39,100
Revenue from KPO	US\$		1,702	3,404	5,658	7,820	10,235	10,580	11,040	11,500	11,500	11,500	11,500
Operational expenses	US\$		(10,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)
Profit	US\$		(2,550)	3,806	13,662	23,420	33,876	35,380	36,981	38,600	38,600	38,600	38,600

## Assumptions

Yield per ha	tons	23
CPO price / ton	US\$	800
KPO price / ton	US\$	1,000
Cost per ha	US\$	1,200

Interest rate on investment capital	%	11%
Interest rate on working capital	%	10%
Maximum payment from income	%	50%
Profit sharing	%	10%

# Appendix – MECK Fund Financial Model

## Cash Flow of the Fund

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Proceeds to fund	US\$'000						1,903	6,831	11,710	16,938	17,690	12,614	3,860	3,860	3,860	3,860
Proceeds to smallholders	US\$'000						1,903	6,831	11,710	16,938	17,690	24,367	34,740	34,740	34,740	34,740
Cash flow of the fund from loans	US\$'000	(8,500)	(12,000)	(7,500)	(9,000)	(2,550)	1,903	6,831	11,710	16,938	17,690	12,614	3,860	3,860	3,860	3,860
<b>IRR to fund</b>	<b>%</b>	<b>11%</b>														
Due diligence costs	US\$'000	(1,000)	(1,000)	-	-	-	-	-	-	-	-	-	-	-	-	-
2% management fee	US\$'000	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)	(791)
Total cash flow to fund	US\$'000	(10,291)	(13,791)	(8,291)	(9,791)	(3,341)	1,112	6,040	10,919	16,147	16,899	11,823	3,069	3,069	3,069	3,069
<b>IRR to investor</b>	<b>%</b>	<b>7%</b>														



# Appendix – Mitigation of Risk Factors

## Financial

### Moral Hazard

- Frequent contract is needed: Lending to farmers who do not have a culture of borrowing and repaying further increases operating costs: focus to close proximity areas
- Engagement of local partners to facilitate repayment and sustainability
- Organization of financial education

### Price and market risk

- Volatility in CPO/KPO prices

## Operational & Environmental

### Production and Yield Risk

- Crop insecurity
- Climate risk
- Insurance will be utilized

### Environmental

- Continued sustainability of operations
- Degraded land database

## Political & Social

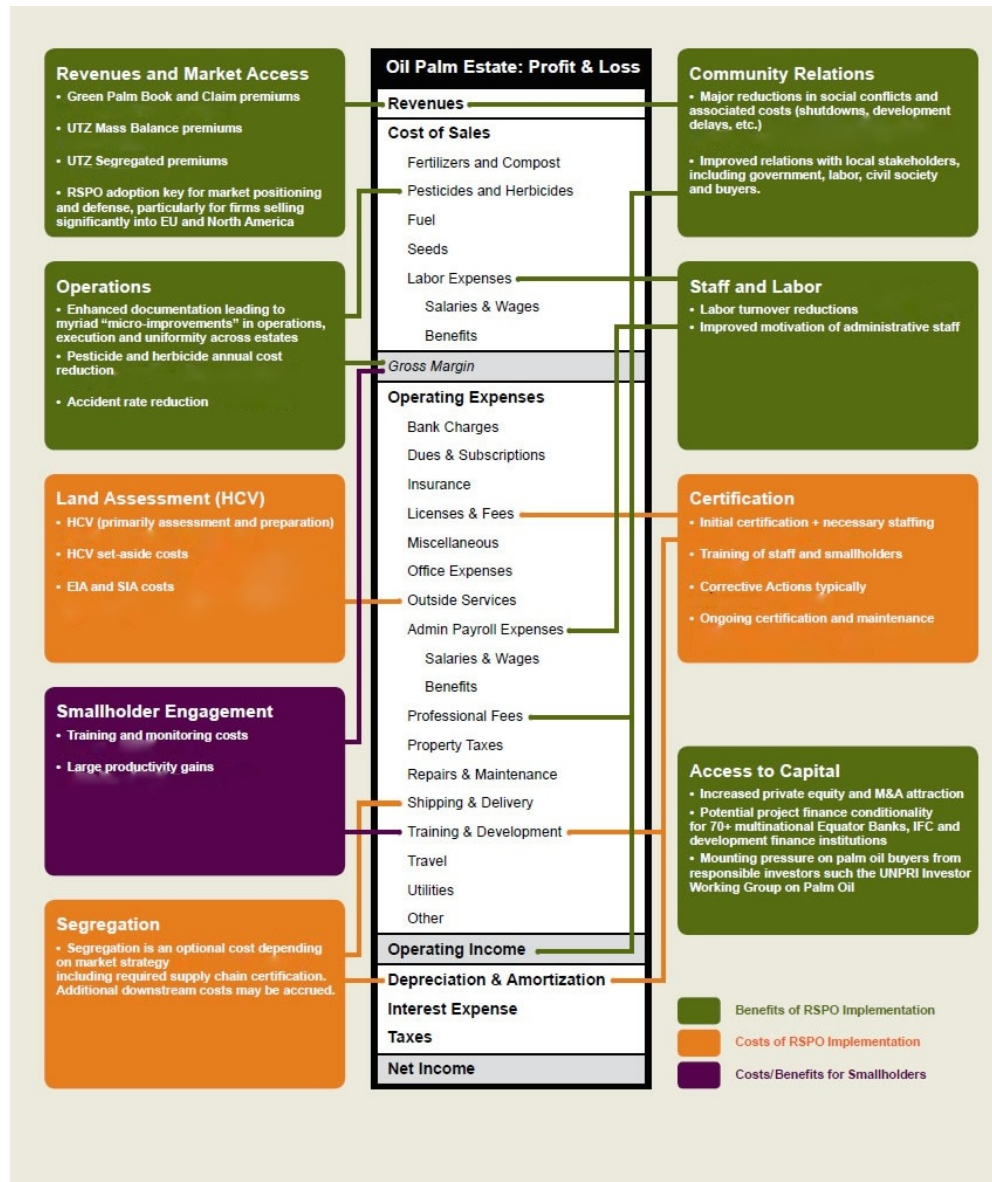
### Political Risk

- Country and foreign exchange risk

### Farmer Social-Economical Status Change Problems

- Repercussions of change in the wealth of local farmers and maintenance of future flow the investment to sustainable farming practices

# Appendix – Impacts of RSPO Certification on Smallholders



# Appendix – Potential Partners

