



Financial Solutions to Improve Farmer Livelihood in Zambia

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International Impact Investing Challenge

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ZaS Core Team Profile



Yeshwant Holkar

He has seven years of experience working as an equity analyst at an emerging markets long short fund, investing primarily in South Asia and Latin America. Yeshwant is originally from India and has a BA in Finance and Philosophy from Franklin & Marshall College.



Mwewa Kapotwe

He has worked in the African investment banking team at Renaissance Capital in London, executing a number of M&A and capital market transactions in the natural resources sector. Mwewa is originally from Zambia and holds an Economics Degree from the University of Newcastle-Upon-Tyne, UK.



Isaac Matzner

He has worked as the Research Coordinator at Auerbach Grayson, a boutique stock broker focused on emerging and frontier markets. He started his career as a JPA in the World Bank's Results Secretariat and has also done work related to remittances and diaspora investment. Isaac is originally from New York and has BA in International Development Studies from McGill University.

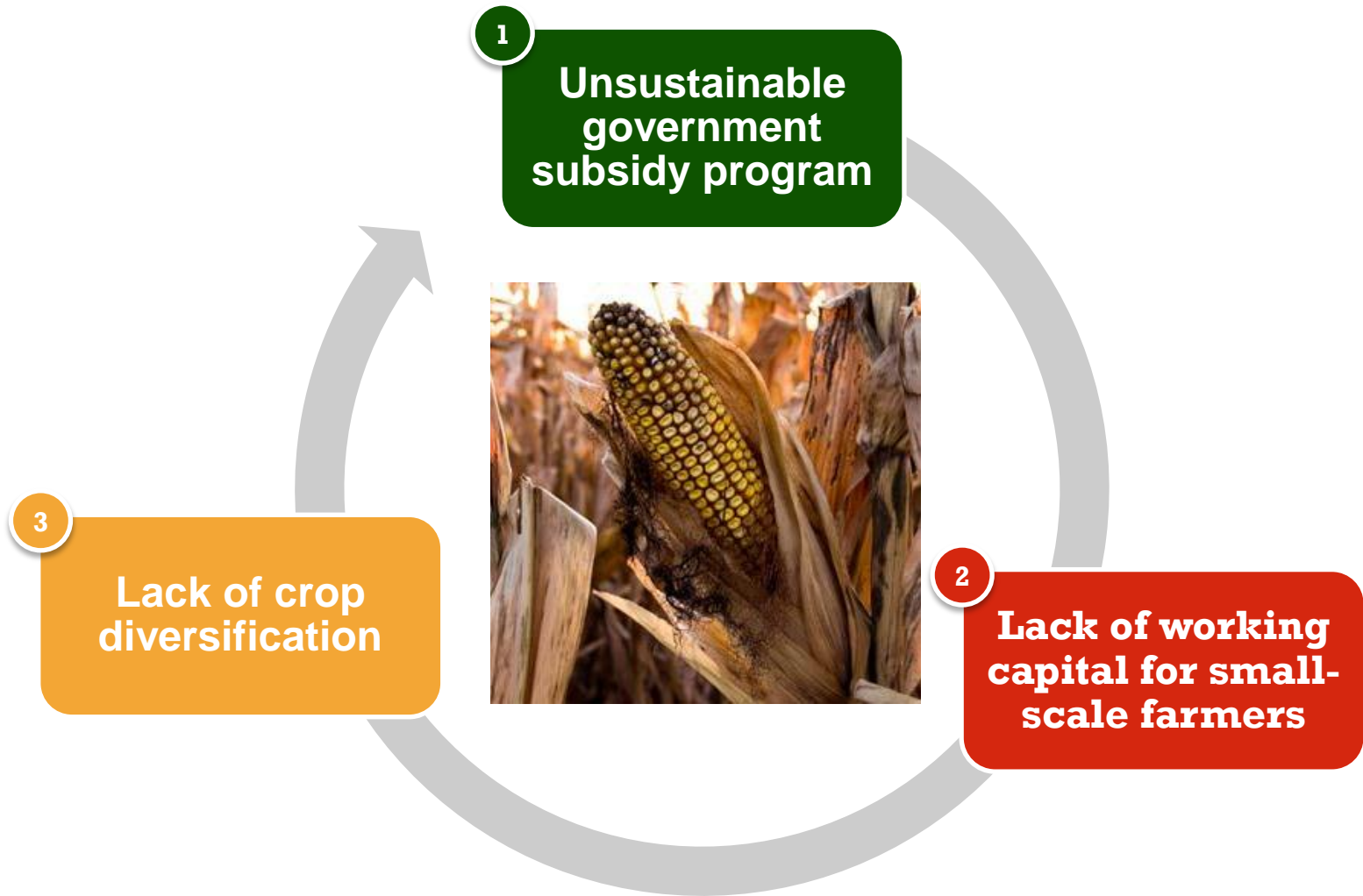


Nitin Nowjee

He has five years of Investment Banking experience in London working for one year within the Financial Advisory Services practice of Houlihan Lokey, focussing on the restructuring, fairness opinion valuation and portfolio valuations. Prior to Houlihan Lokey, he spent four years within the European M&A team at UBS, working on private equity-led buy-side and sell-side transactions. Nitin is originally from Mauritius and holds an MA, MEng and PhD in Chemical Engineering from the University of Cambridge.

The agricultural policy in Zambia needs reform

Systemic issues have led to an over-dependence of small-scale farmers on unsustainable government subsidy programme



Government currently incentivises maize production

1

**Unsustainable
government
subsidy program**

Maize Purchase Program (MPP)

- Ensure strategic maize reserve
- Ensure food security

**FRA buys
maize at
above-market rate**

**FRA sells
maize to millers at
below-market rate**

**FRA pays
farmers with a
3-month delay**

**Political pressure leaves
government unable to change policy**

Farmers are locked in a maize production cycle

2

Lack of working capital for small-scale farmers



3

Lack of crop diversification

Farmers incentivized to grow maize

Delayed payments from the FRA leads to WC challenges

Farmers unable to invest in switching crops & upgrading fields

Small scale farmers continue to grow maize

Subsidy programme is costly and wasteful



- Subsidy programme costs US\$350m per year
 - Over 1% of Zambia's 2012 GDP
- The program affects 3.5 million small-scale farmers
- Maize wastage of 190,000 tonnes annually (c.US\$49m p.a.)

Our Solution – Zambia Maize Bonds (“ZmB”)

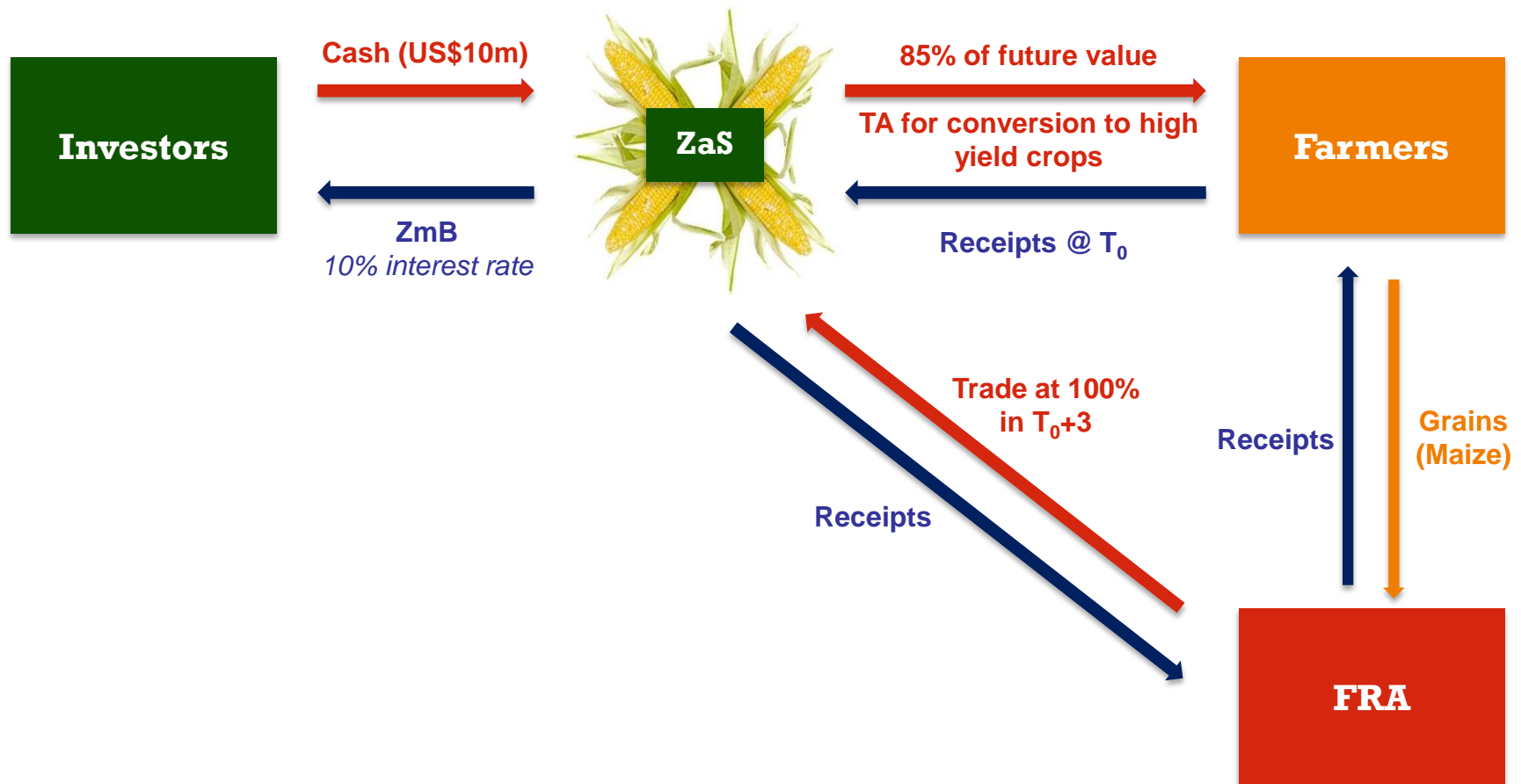
- Zambia Agricultural Solutions (“ZaS”) will empower small-scale farmers and reduces overall government subsidies
- The Zambia Maize Bond (“ZmB”) will be a social impact bond in the value of US\$10m

Key Objectives

- Provide short-term financing to small-scale farmers
- Promote crop diversification into higher margin crops
- Reduce Government Subsidy Program

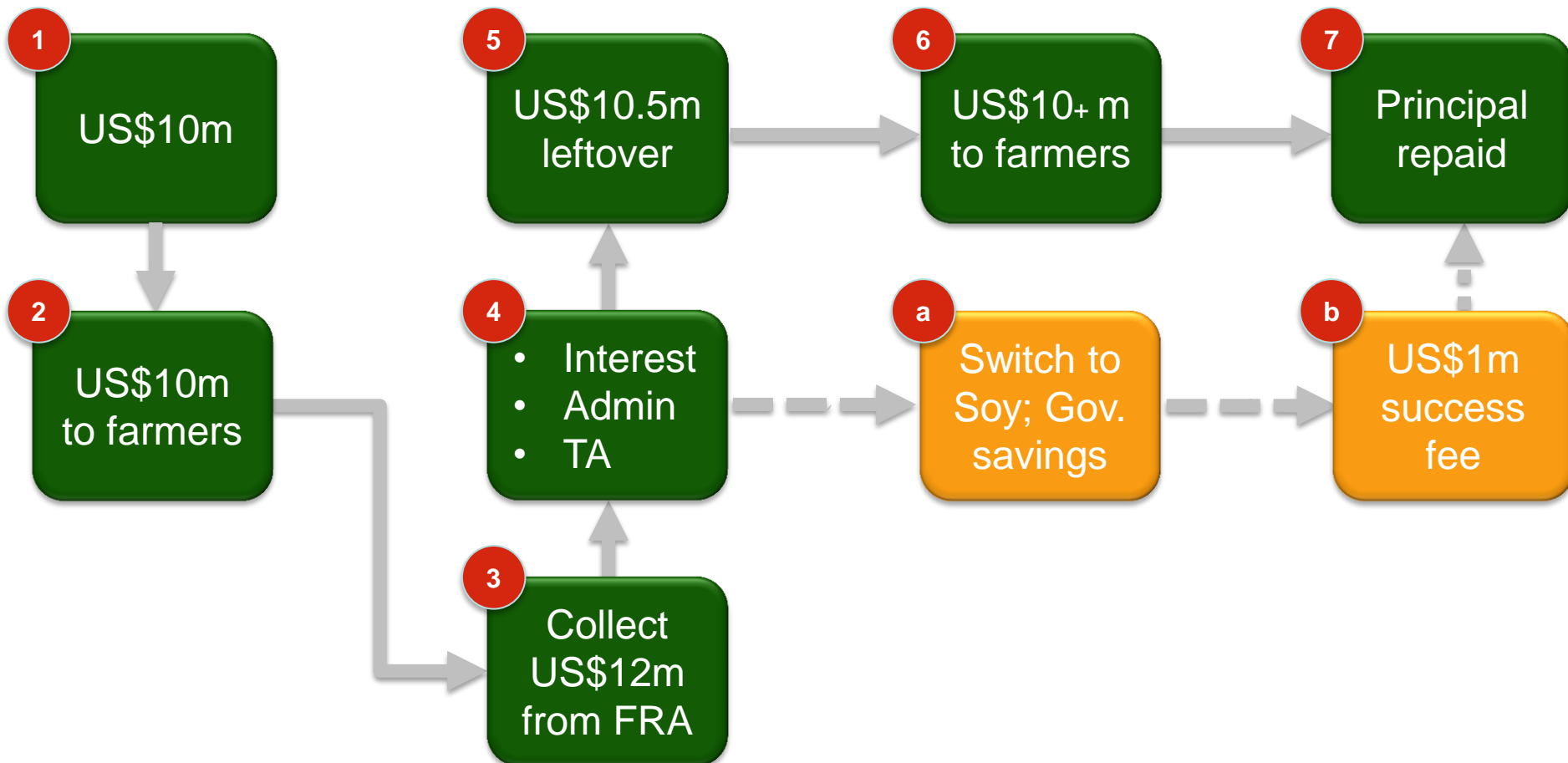


ZaS acts as an intermediary between FRA and farmers



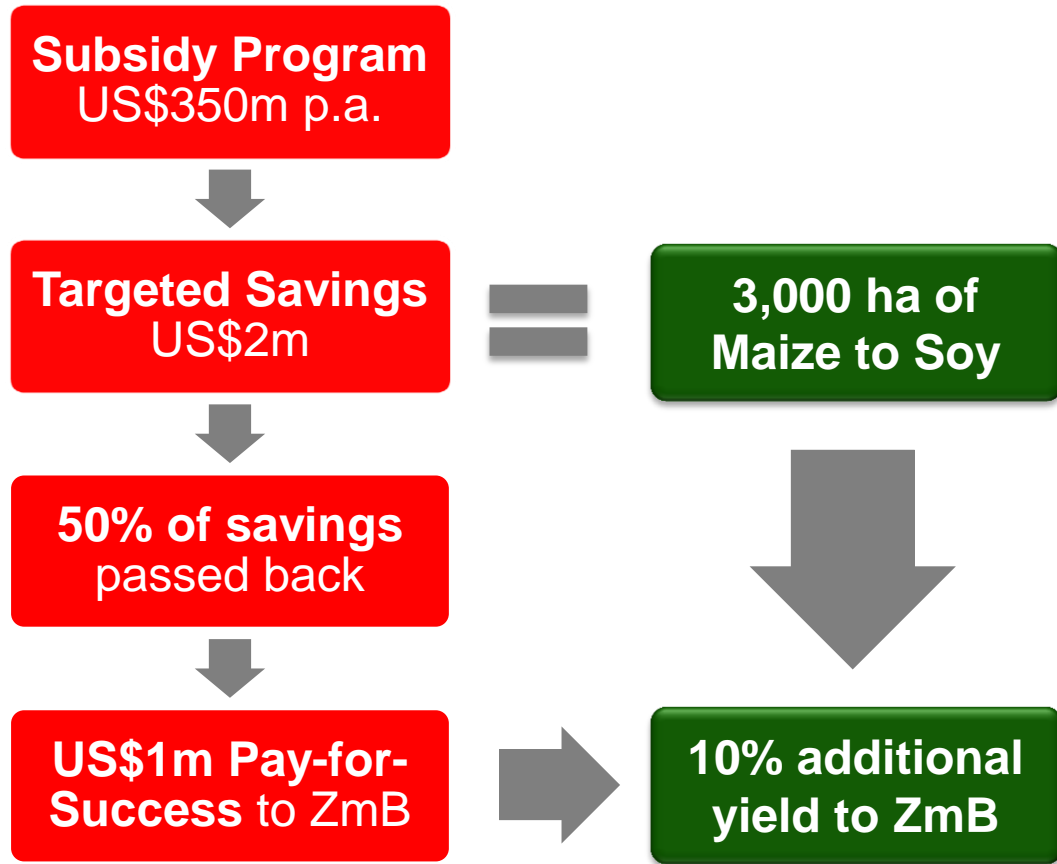
Funds incentivise crop switching

- 5-year bond
- 10% base interest rate
- 10 % additional interest if crop transition proves successful (from the Zambian Government)



Pay-for-Success driven by measurable KPIs

KPI to include documented conversion 3,000 ha. of maize farmland to soy production



Technical assistance to aid crop switching



3,000 ha. targeted conversion



2,000 small-scale farmers to be assisted



US\$500 of TA per farmer over 5 years



Cumulative TA cost of US\$1.0m over 5 years

Program pilot to work with local partners

- Small-scale pilot: Northern Province of Zambia

Fundraising and Registration

- Funds raised in the U.S.
- ZaS to register with SEC Zambia



Payment disbursal

- Partner with local banks and microfinance institutions



Technical Assistance

- Work with existing service providers



Solution will be targeted at a range of investors

Phase 1 - Initial Pilot Bond

Product testing in
Northern Zambia

Foundations and Social Funds



Phase 2 - Future Bond

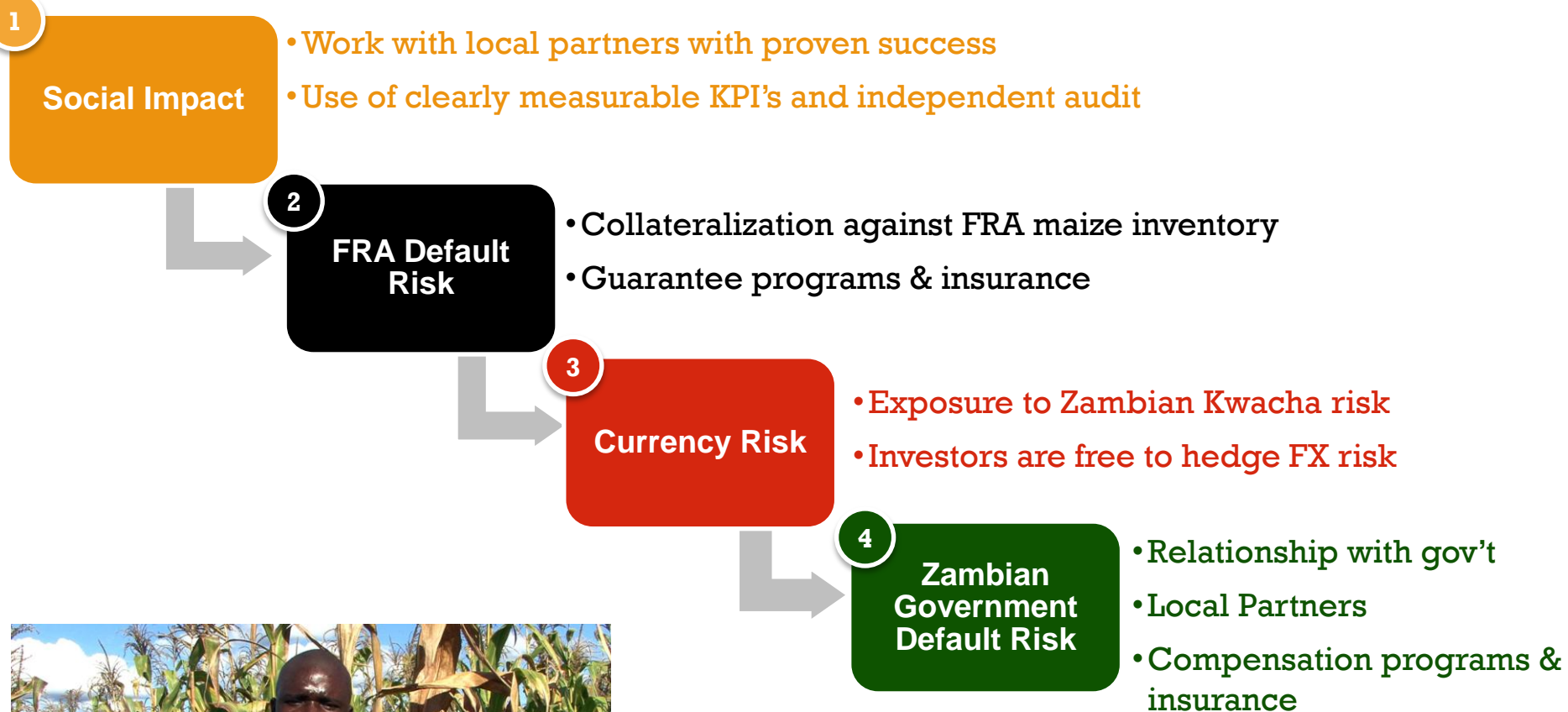
Product roll-out throughout
Zambia

**Socially-Minded Funds
&
Impact Investors**

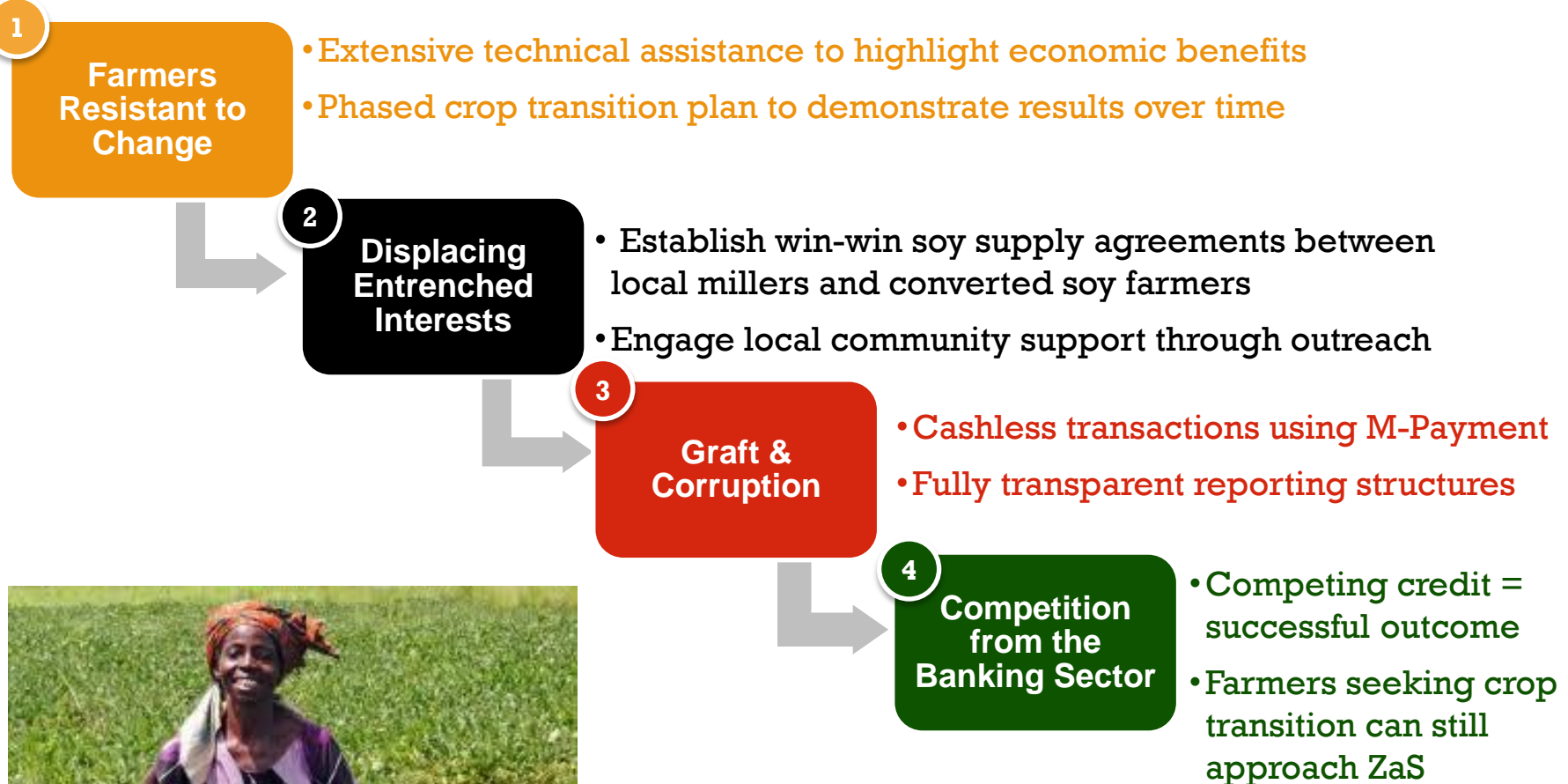
Phase 3 – Expansion

Replication in other countries
with large agriculture subsidy
programs

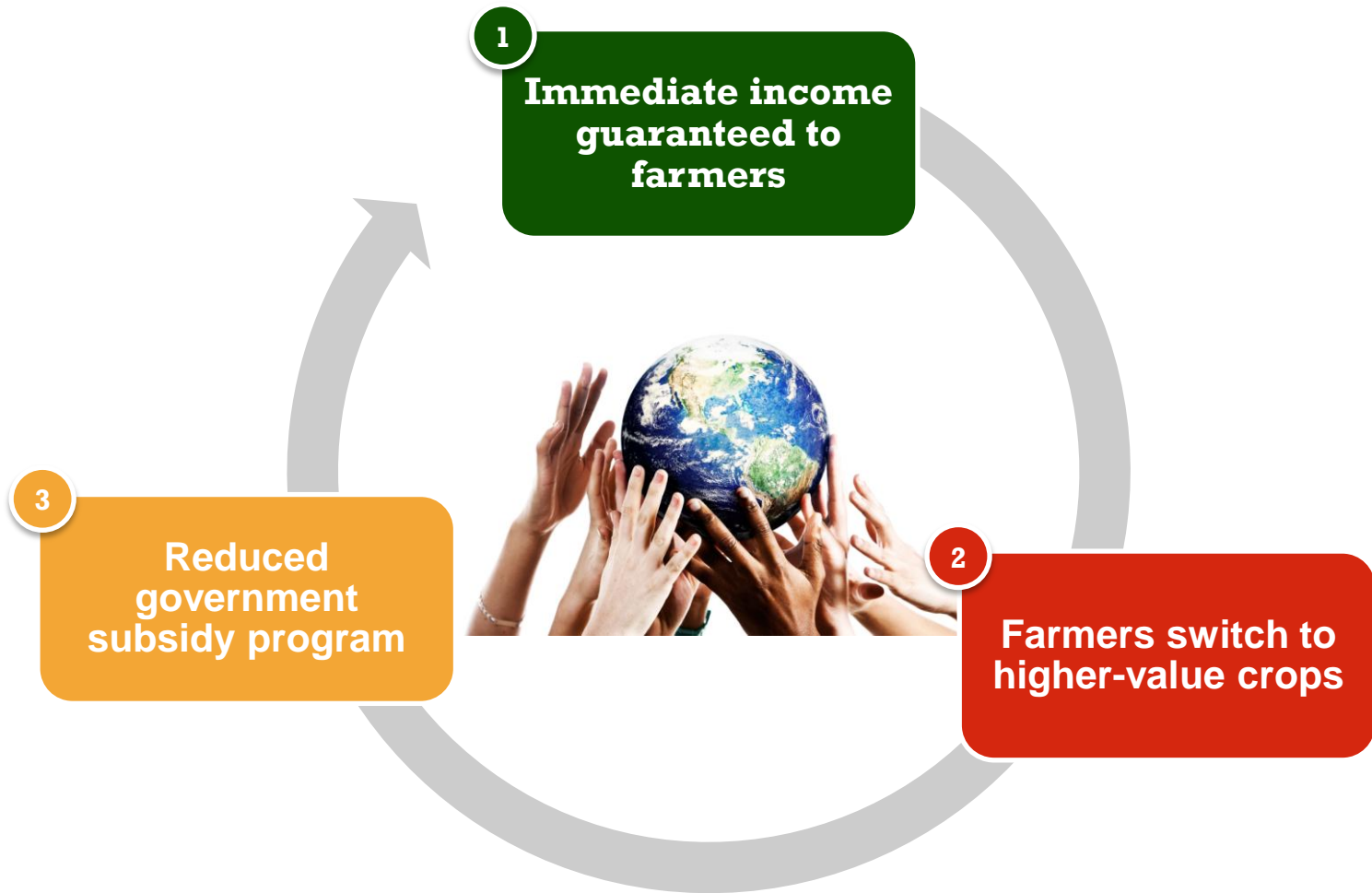
Financial Risks and Mitigating Strategies



Implementation Risks and Mitigating Strategies



ZaS will achieve significant social impact



By committing farmers to diversify their crops, the government will face less pressure to subsidize country-wide maize production

Q&A

Appendices

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Appendix 3 – Proposed Flow of Funds

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Appendix 1 – The ZaS Team

Core Team



Yeshwant Holkar
EM Investment Finance



Mwewa Kapotwe
African Corporate Finance



Isaac Matzner
Development & Finance



Nitin Nowjee
Corporate Finance

Team Mentor



Peter Tynan
Managing Director
Sustainability
Global Environment Fund



Partners

Zambian



International



D.Capital

Appendix 2 – Potential Implementation Partners (1)



Root Capital is a nonprofit social investment fund that grows rural prosperity in poor, environmentally vulnerable places in Africa and Latin America by lending capital, delivering financial training, and strengthening market connections for small and growing agricultural businesses.



Technoserve is a nonprofit organization that develops business solutions to poverty by linking people to information, capital and markets. Technoserve works with enterprising people in the developing world to build competitive farms, businesses and industries.



Fintrac is a woman owned, US-based consulting company that develops agricultural solutions to end hunger and poverty, working with local and global partners to increase production, improve postharvest handling, add value, and develop markets and competitive value-chains for the world's most vulnerable farmers and communities. By teaching farmers proven technologies and practices, Fintrac increases yields to improve nutrition, generate income, and build industries.

Appendix 2 – Potential Implementation Partners (2)



Stanbic Bank in Zambia is part of one of Africa's leading banking and financial services groups, Standard Bank Group Limited, which is based in South Africa and listed on the Johannesburg Securities Exchange. Rooted in Africa and with representation in strategic sub-Saharan markets, the Standard Bank Group is a regional banking force with a global sweep.



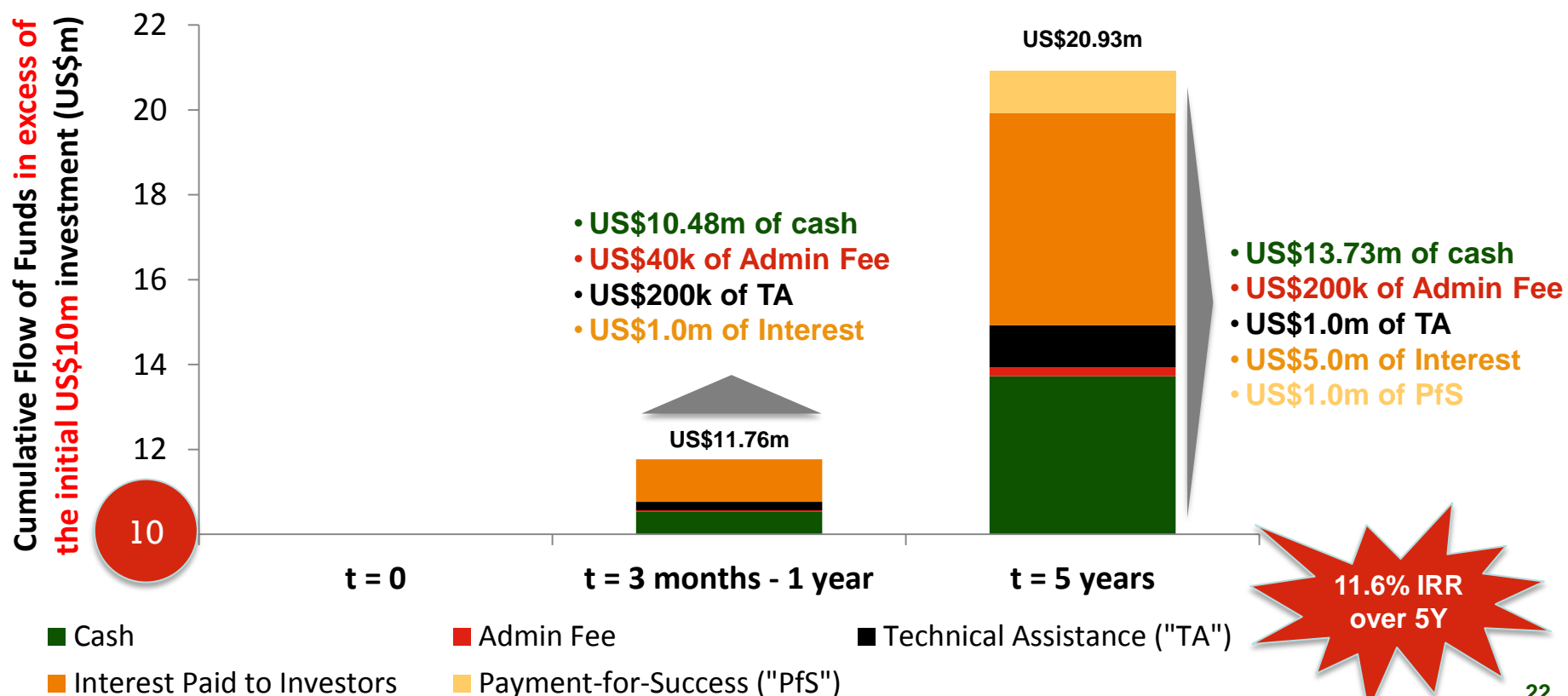
The **World Food Programme** is the world's largest humanitarian agency fighting hunger worldwide. The organisation has five key objectives: saving lives and protecting livelihoods in emergencies, preparing for emergencies, restoring and rebuilding lives after emergencies, reducing chronic hunger and under-nutrition everywhere in the world and strengthening the capacity of countries to reduce hunger.



Letshego is the first consumer lending company to be established in Botswana and is still the leading provider of unsecured credit to Botswana. Letshego was established to provide unsecured loans to formally employed clients.

Appendix 3 – Proposed Flow of Funds

- ZmB will be structured as a 5-year bullet bond
 - Base-interest yield at 10% (5% discount to Zambian 5-year sovereign bonds in Kwacha)
- The Zambian government to commit to a Pay-for-Success conditional of ZaS achieving set KPIs
 - Examples of KPIs include successful conversion of 3,000 hectares of maize farmland to higher margin crops within the first 5 years
 - Pay-for-Success incentive at 10% yield of initial investment



Appendix 4 – Detailed Financial Model

FLOW OF FUNDS

(US\$ million)	31-Dec-13	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18
Year Count	0	1	2	3	4	5
Proceeds:						
ZmB proceeds	10.00	10.00	10.52	11.14	11.87	12.72
LTV		85%	85%	85%	85%	85%
Cash payout by FRA after 3 months		11.76	12.38	13.11	13.96	14.97
Costs and payments:						
Technical Assistance	(1.00)	(0.20)	(0.20)	(0.20)	(0.20)	(0.20)
Admin Fee	(0.20)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Annual Interest paid to Investors	10%	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Remaining proceeds		10.52	11.14	11.87	12.72	13.73
Pay-for Success:						
Pay-for Success rate	10%	0%	0%	0%	0%	10%
Pay-for Success payment		0.00	0.00	0.00	0.00	1.00
Pay out to Investors	100%	0.00	0.00	0.00	0.00	1.00
Pay out to ZaS	0%	0.00	0.00	0.00	0.00	0.00
Carry Forward Cash		10.52	11.14	11.87	12.72	13.73
Cash to Investors (= Interest paid + Pay out from Pay-for-Success)		1.00	1.00	1.00	1.00	2.00
Principal paid back to Investors						10.00
Additional funds paid back to Investors (= Dividends)						0.00
Funds remaining in ZaS at the end of Year 5						3.73

RETURNS ANALYSIS

(US\$ million)	31-Dec-13	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18
Year	0	1	2	3	4	5
Cashflows	(10.00)	1.00	1.00	1.00	1.00	12.00
IRR (%)	11.6%					

Appendix 5 – ZmB Terms and Conditions

Za\$ “Zambia Maize Bonds” Summary Terms & Conditions	
Issuer & Title	Za\$ - “Zambia Maize Bond”
Deal Size	US\$10 million
Denomination	Authorized denominations of the notes will be 50,000 KWR (c.US\$10,000)
Maturities	Bullet principal payment due 5 years from issue date
Interest Base Rate	Each note will bear interest at a 5% discount to 5Y Zambian sovereign bond rates at issue (currently c.15%)
Pay-for-Success	An additional 10% interest above base rate paid at maturity based on achievement of agreed upon KPI's
Social Impact Target (KPI)	c.3,000 ha. of maize producing farmland converted to soy production

Appendix 6 – If the Initial Bond were Unsuccessful?

Affected Party	Result / Outcome
Zambian Government	<ul style="list-style-type: none">• Government is only responsible for paying in case where agreed KPIs are met at the end of Year 5• Government can cancel program at the end of the contract term
ZaS	<ul style="list-style-type: none">• Loses credibility with Government, reducing likelihood of securing further government contracts• Loses credibility with social investors, making it difficult to access capital for further programs
Impact Investors	<ul style="list-style-type: none">• Receives only 5% return on initial investment as working capital funding will support repayment of principal