










# SilverStreet Capital

## 2022 Annual Impact and ESG Report The Silverlands Funds

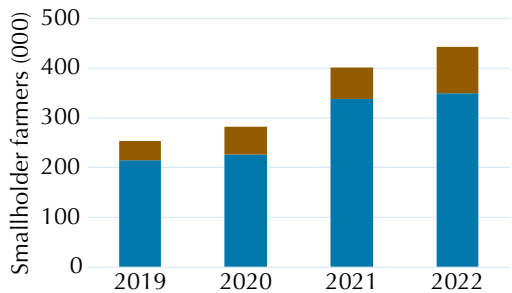


	Impact Metric	Silverlands I 2011	Silverlands II/III 2016	Total	SDG's	
<b>Social Impact</b>						
At our businesses	Employment (#)	6,700	4,300	<b>11,000</b>	 	
	New jobs created (#)	3,400	1,300	<b>4,700</b>		
	Salaries paid in year	\$30m	\$29m	<b>\$60m</b>		
	Increase in average salary since investment	2.0 x	2.8 x	<b>2.3 x</b>		
Community impact	Direct economic benefit (# smallholder farmers)	349,000	94,000	<b>443,000</b>		
	Individual incomes improved % (\$ p.a.)	53% (\$280)	55% (\$290)	<b>54% (\$280)</b>		
	Increased community incomes (\$ p.a.)	\$95m	\$27m	<b>\$122m</b>		
<b>Climate and Natural Capital Impact</b>						
At our businesses	Indigenous ecosystems protected (ha)	29,500	350	<b>29,850</b>	 	
	Renewable energy generated (kWh)	4,228,000	2,797,000	<b>7,025,000</b>		
	GHG Emissions - Scope 1 and 2 (tCO <sub>2</sub> e)	43,800	27,200	<b>71,000</b>		
<b>Gender Impact</b>						
At our businesses	Women employees	(%)	41%	38%	<b>40%</b>	 
		(#)	2,800	1,600	<b>4,400</b>	
Outside our businesses	Women smallholder farmers	(%)	70%	61%	<b>68%</b>	
		(#)	245,000	57,000	<b>301,000</b>	
Total	Women experiencing a direct economic benefit	(% of total)	70%	60%	<b>67%</b>	
		(#)	248,000	58,000	<b>306,000</b>	
<b>Nutritional Impact</b>						
Outside our businesses	Annual calories produced is equivalent to the needs of ... (# people)	3.8m	2.7m	<b>6.5m</b>		
	Annual protein production is equivalent to the protein needs of ... (# people)	4.4m	5.2m	<b>9.7m</b>		
<b>ESG Management</b>						
Compliance with our Responsible Investment Code (%)		95%	93%	<b>94%</b>		
Dedicated ESG personnel (#)		15	4	<b>19</b>		
Unadjusted Gender Pay Gap (%)		37%	34%	<b>36%</b>		

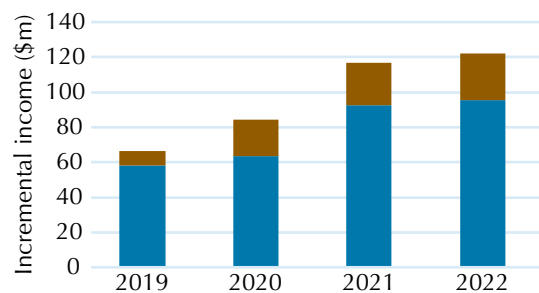
## Key Impact Metrics Over Time - Silverlands I & II/III ■ Silverlands I ■ Silverlands II/III

### Social Impact

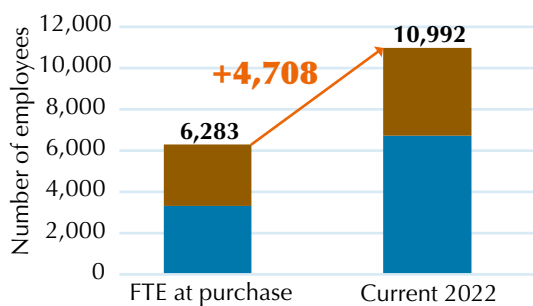
**443,000 smallholder farmers benefitting economically**



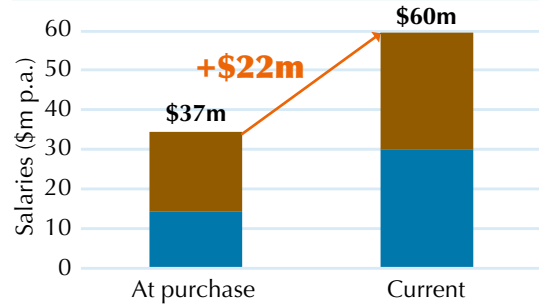
**Increased incomes \$122m p.a.**



**11,000 employees, ~4,700 new jobs**



**\$60m p.a. annual salaries**



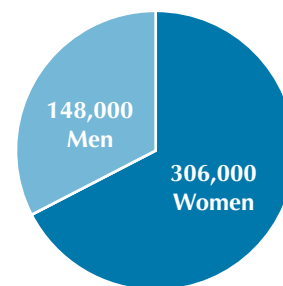
### Natural Capital and Climate Impact

**~30,000 ha of indigenous ecosystems protected**



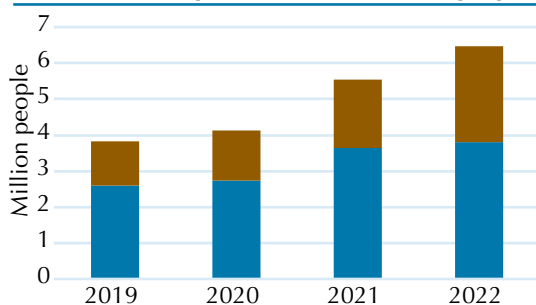
### Gender Impact

**67% (306,000) of economic beneficiaries are women**

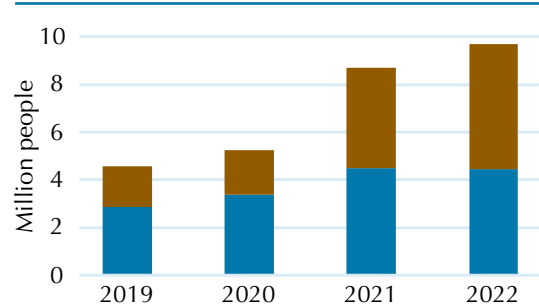


### Nutritional Impact

**Annual calories produced can feed 6.5m people**



**Annual protein produced sufficient for 9.7m people**



Numbers based on academic research and surveys and include assumptions. See detailed discussion in the report.

# Welcome

## Welcome to our tenth Annual Impact and ESG Report.

SilverStreet is a UK and Africa-based investor focusing on the African agricultural sector and our investment objective is: *“To achieve attractive returns for our investors as well as substantial positive social, environmental and climate impacts through our investments.”*

## Awards in 2022

We won the Global Private Capital Association’s ESG Performance Award for Sector Focused Funds. This was one of only two ESG awards made by the GPCA, an association of our peer group comprising emerging market private equity fund managers. In June 2022 we won two awards from Environmental Finance, one for Best Sustainability Reporting, and Silverlands II won the award for Environmental Fund of the Year. We have four portfolio companies in the 2023 Financial Times’ survey of the 100 fastest growing companies in Africa: Achill (14th), Silverlands Vineyards (25th), Zamseed (26th) and Silverlands Tanzania (73rd).

## EU SFDR

In March 2021 the EU’s new Sustainable Finance Disclosure Regulation (SFDR) came into force. All EU funds are classified according to the degree to which sustainability is a consideration with “Article 9 / Dark Green” funds having sustainable investing as their core objective, the highest sustainability standard. We are proud that all three of our Funds are classified as Article 9/Dark Green. This is a rarefied group with under 5% of EU funds meeting this status.

## The opportunity for both impact and return

The Sub-Saharan African agricultural sector presents an exciting opportunity for both return and impact. The key to achieving both is to carefully direct investments to “fix” issues in particular agricultural value chains. This unlocks that value chain, raising incomes for smallholder farmers and, depending on the investment, substantially reducing potential deforestation.

## Impact summary

Our main impact target, smallholder farmers, the majority of whom are women, represents the lowest income sector of Sub-Saharan African economies and achieves crop yields that are about one-third of the global average. By introducing rotation crops, better quality inputs and through extension work, we can double food production, raise incomes, benefit women disproportionately and preserve Sub-Saharan Africa’s natural capital.

Our investments have created 4,700 quality jobs and have had an enormous multiplier effect. As this report shows, we estimate that 443,000 people have directly benefitted economically, most of whom are smallholder farmers, and some 68% of whom are women. These farmers have seen their annual incomes rise by ~54%, an extraordinary boost. The food produced across our Funds is enough to provide for ~6.5m people for a year. Our annual production of protein is sufficient to cover annual protein requirements for ~9.7m people for a year.

## Conclusion

We are privileged to be managing investments for patient and long-term investors who seek positive impacts. We are excited about the breadth of climate, social and environmental impact possible through our investments and the return potential that they bring. Thank you again for your support.



**Gary Vaughan-Smith**  
Chief Investment Officer

# Contents

<b>1</b>	Welcome.....	2
<b>2</b>	Introduction.....	5
<b>3</b>	Silverlands Funds' Investment and Impact Strategy .....	7
<b>4</b>	Creating a Positive Impact in the Seed Sector.....	13
<b>5</b>	Creating a Positive Impact through Technical Support.....	21
<b>6</b>	Creating a Positive Impact through Protecting our Natural Capital .....	28
<b>7</b>	Creating a Positive Impact in the Poultry Sector .....	34
<b>8</b>	Supporting Livelihoods in Southern Zambia.....	43
<b>9</b>	Creating a Positive Impact with Plantation Crops .....	49
<b>10</b>	Creating a Positive Impact through Creating Quality Jobs.....	53
<b>11</b>	Other Development Impact .....	59
<b>12</b>	Managing Impact and ESG .....	60
<b>13</b>	Annual ESG Review.....	63

# Awards

Awards	Organisation
<b>Environmental Fund of the Year, Africa; Best Sustainability Reporting by an Asset or Fund Manager, Medium and Small, 2022</b>	Environmental Finance Sustainable Investment Awards
<b>ESG Performance Award - Sector Specialist, 2021</b>	CDC/GPCA ESG Awards
<b>Ethical Investor of the year, 2018, 2019, 2020/1</b>	Global Fund Award, Corporate LiveWire
<b>Emerging Markets Investment Company of the year, 2020/1</b>	Global Fund Awards, Corporate LiveWire
<b>Best Impact Investor, UK, 2018</b>	Wealth & Finance International
<b>Best African Agriculture PE Fund, 2018</b>	Wealth & Finance International

**In 2021, Phenix Capital conducted an Impact Fund Assessment to assess the robustness of our impact funds' propositions. Our score of 51 out of 66 was well above the average score of 45 and nearing the highest score of 56.**



# Glossary of Terms

<b>Achill</b>	Achill Island Investments (Proprietary) Limited
<b>CBL</b>	Crookes Brothers Limited
<b>CSI</b>	Corporate Social Investment
<b>EHS</b>	Environmental, Health and Safety
<b>ESAP</b>	Environmental and Social Action Plan
<b>ESG</b>	Environmental, Social, Governance
<b>IFC</b>	International Finance Corporation
<b>JV</b>	Joint Venture
<b>NGO</b>	Non-Governmental Organisation
<b>PPE</b>	Personal Protective Equipment
<b>PS</b>	Performance Standard (from IFC Performance Standards)
<b>QBV</b>	Quinta da Bela Vista Limitada
<b>Quantum</b>	Quantum Foods Holdings Limited
<b>RIC</b>	Responsible Investment Code
<b>SA</b>	Republic of South Africa
<b>SASL</b>	Silverlands Agriculture Services Limited
<b>SEMS</b>	Social and Environmental Management System
<b>Silverlands I</b>	SilverStreet Private Equity Strategies SICAR
<b>Silverlands II</b>	Silverlands II SCSp
<b>SLIC</b>	Silverlands Livelihoods Improvement Community
<b>SNL</b>	Silverlands Ndolela Limited (previously NAPL)
<b>SRL</b>	Silverlands Ranching Limited
<b>STL</b>	Silverlands Tanzania Limited
<b>SVL</b>	Silverlands Vineyards (Proprietary) Limited
<b>SZL</b>	Silverlands Zambia Limited
<b>Zamseed</b>	Zambia Seed Company Limited



# Introduction

# 2

## 2.1 About this Report

This is our tenth **Annual Impact and ESG Report**, and covers the period 1 July 2021 to 30 June 2022 for investments in all the Silverlands Funds (Silverlands I, II and III).

Our aim for the report is to provide an update on the Silverlands Funds' impact and to review Environmental, Social and Governance (ESG) compliance. Detailed ESG reports for each portfolio company were shared with investors in the Silverlands Funds in September 2022. For more information, please contact the Head of Impact and ESG on [info@silverstreetcapital.com](mailto:info@silverstreetcapital.com) or visit [www.silverstreetcapital.com](http://www.silverstreetcapital.com).

## 2.2 ESG and Impact Measurement Standards

SilverStreet Capital is a signatory of the UN Principles of Responsible Investment (UNPRI). We have considered the following ESG and Impact standards in compiling this report:

Our ESG Standards	Our Impact Measurement and Reporting Guidelines
SilverStreet's ESG and Impact Policy	SilverStreet's ESG and Impact Policy
SilverStreet's Responsible Investment Code (RIC)	Impact Management Project (IMP)
International Finance Corporation (IFC) Performance Standards	UN Sustainable Development Goals (SDGs)
UN Global Compact	Article 9 EU SFDR

## 2.3 Our Partners

Our work is facilitated by numerous partners who we would like to thank for their assistance and support. These include:

- the World Poultry Foundation (WFP);
- Caritas;
- Catholic Relief Services;
- the Southern Agricultural Growth Corridor of Tanzania (SAGCOT);
- Foundations Zambia;
- Danida (the Ministry of Foreign Affairs of Denmark);
- the Danish Investment Fund for Developing Countries;
- Musika Development Initiatives, Zambia;
- the Conservation Farming Unit (CFU);
- AgDevCo;
- the U.S. International Development Finance Corporation (DFC) (political risk insurance and senior lender to Silverlands I); and
- Multilateral Investment Guarantee Agency (MIGA, a member of the World Bank Group) (political risk insurance).



## 2.4 New ESG Regulation

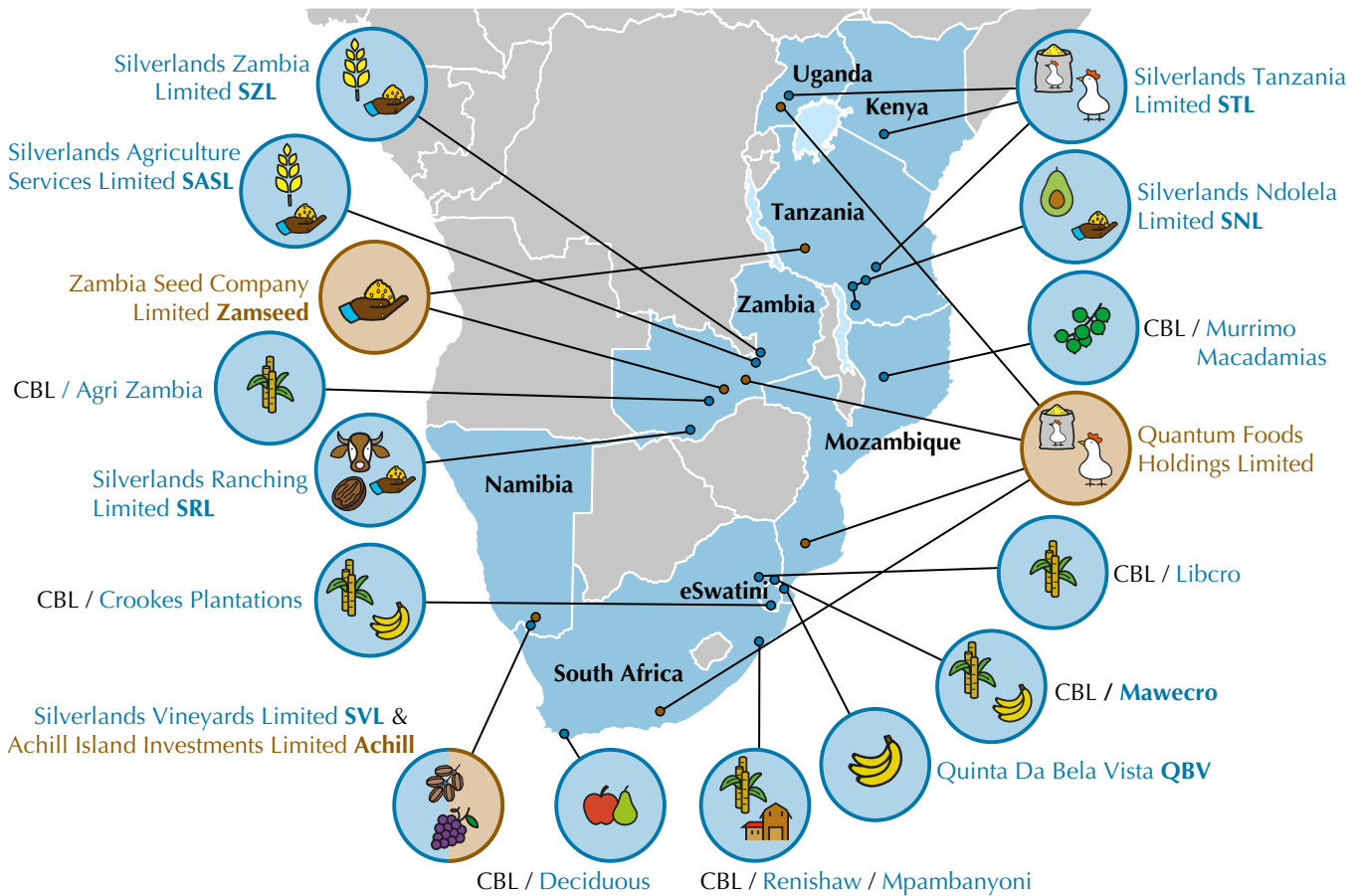
### EU Sustainable Finance Disclosure Regulations (“SFDR”)

Silverlands Fund I, Silverlands Fund II and Silverlands Fund III are classified as article 9 funds by the European Union’s Sustainable Finance Disclosure Regulations. As part of this classification, each fund has reported on its principal adverse impacts (“PAIs”). For more information on the PAIs please visit the sustainability disclosures on our website.

## 2.5 Silverlands Funds’ Portfolio Companies

The Silverlands Funds are invested in 11 portfolio companies across eight countries in Southern and East Africa.

Location of Silverlands I, Silverlands II/III companies across Southern and East Africa





# Impact Strategy





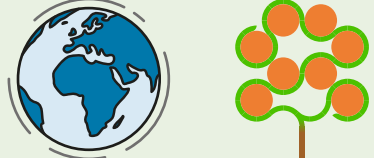
# 3

## Our Objective

“To seek attractive returns for investors whilst achieving a substantial positive social, environmental and climate impact.”

### 3.1 Theory of Change

In order to create an impact, one needs firstly to identify the key issues to be solved and then, the solutions to these issues. One is trying to answer the question “where to allocate capital to achieve both impact and return?”.

Challenges	Our Solutions	Our Impact
	 	 
Large population growth	Focus on smallholder farmers	Sustainable increase in incomes for smallholder farmers and through quality jobs
High poverty levels	Improved crop inputs to boost yields	Climate benefits from reduced deforestation
Food insecurity	Training and implementation of conservation farming methods	Natural capital conservation
Poor productivity/yields	Provide markets for high value crops	Substantially improve food security and nutrition
Deforestation	Protect our natural capital	Major economic benefits, for women in particular

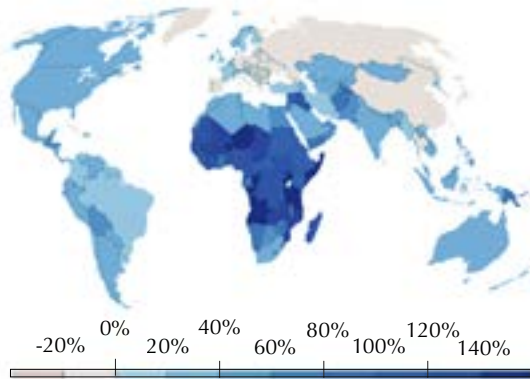
### 3.2 Challenges in Sub-Saharan Africa

#### Population growth

Sub-Saharan Africa has a population of 1.1 billion people and this is forecast to rise to 2.2 billion by 2050, an approximate doubling in size.

An increase in food production will be required to feed the growing population.

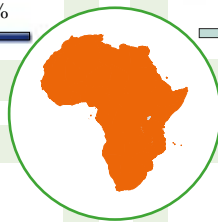
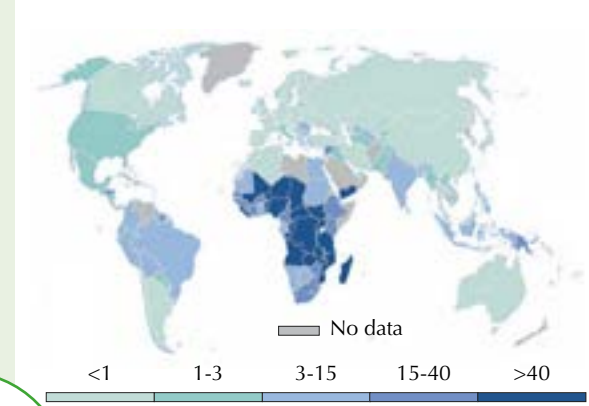
Forecast change in population, 2017 to 2050 (%)<sup>1</sup>



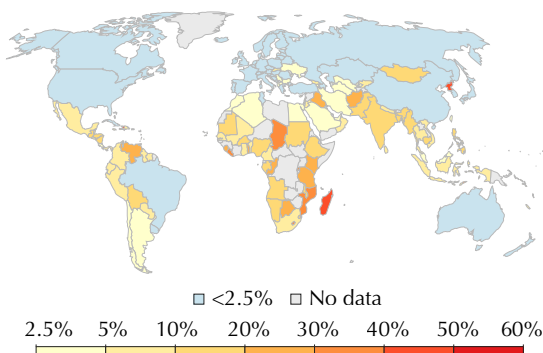
#### High poverty levels

Poverty levels in Sub-Saharan Africa are much higher than the rest of the world. Smallholder farmers, who represent ~60% of the population, are amongst the lowest income group.

Poverty rate at \$1.90/day poverty line<sup>2</sup>



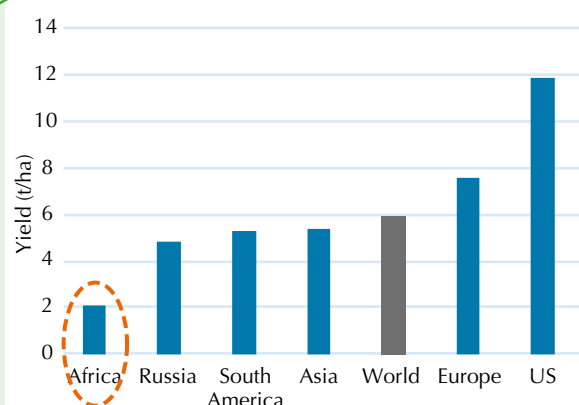
Share of the population that are undernourished<sup>3</sup>



#### Food insecurity

In many parts of Sub-Saharan Africa there are shortages of food, in particular protein. 80% of food is produced by smallholder farmers.

Maize yields (t/ha)<sup>4</sup>



#### Poor productivity and crop yields

Smallholder farmer crop yields in Sub-Saharan Africa are markedly lower than the rest of the world. Fewer tonnes per hectare means lower incomes, less food available and increased deforestation.

Maize is the most important example. It accounts for ~45% of total calories and protein consumed in Sub-Saharan Africa.

<sup>1</sup>United Nations (2019); Map: [World Population Prospects](#) (UN Population Division)

<sup>2</sup>World Bank (2020); Map: [Poverty and Shared Prosperity 2020](#)

<sup>3</sup>UN Food and Agriculture Organization (2017); Map: [Hunger and Undernourishment](#) (Our World in Data)

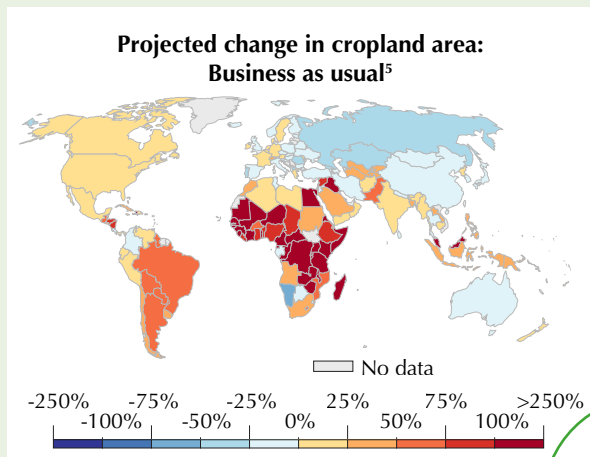
<sup>4</sup>UN Food and Agriculture Organization (2020)

### 3.3 Climate and Natural Capital Challenge: Why We Focus on Productivity

#### Under current trends ...

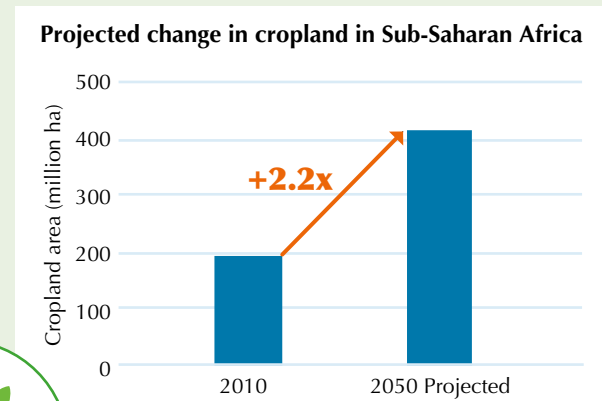
#### Vast deforestation will occur in Sub-Saharan Africa

Under current production and yield trends, to feed Sub-Saharan Africa's increasing population, vast areas of woodland are expected to be deforested by 2050. Dark red shading implies an expected doubling in farmland in that country by 2050.

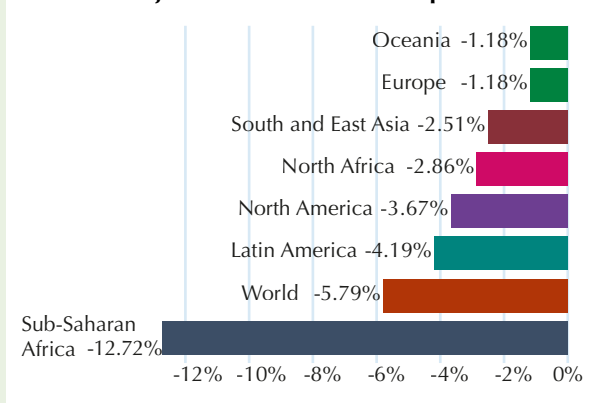


#### By 2050 ... On current trends and without intervention, cropping area will more than double in Sub-Saharan Africa

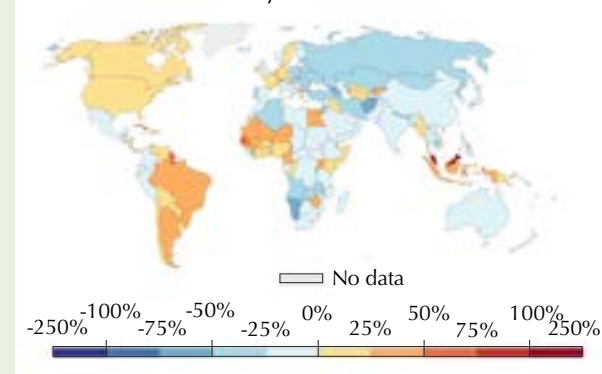
An incremental 227 million hectares of land will be deforested in Sub-Saharan Africa by 2050 based on current yield and population trends if there is no intervention to increase yields. This is equivalent to four times the size of France, or a quarter of the area of the United States.



#### Projected habitat loss for all species<sup>6</sup>



#### Projected change in cropland area if yields increase<sup>7</sup>



#### By 2050 ...

#### Substantial habitat loss in Sub-Saharan Africa

Such a dramatic increase in cropland area would destroy 6% of the habitats of most of the world's wildlife - double this figure in Sub-Saharan Africa. This would have a detrimental effect on biodiversity.

#### The single most effective change to prevent this deforestation is to raise crop yields in Africa

When compared to other solutions applied globally, such as altering diets or making trade more efficient, improving productivity and yields on smallholder farms has been shown to be the single most effective change to prevent cropland expansion in Sub-Saharan Africa.

Our strategy to improve productivity and increase yields for smallholder farmers can protect this natural capital and support the population's food requirement.

<sup>5, 6, 7</sup>Williams, et al (2021); [To protect the world's wildlife we must improve crop yields - especially across Africa \(Our World in Data\)](#)

### 3.4 Our Solutions: Increasing Productivity Where it Matters Most

#### Focus on smallholder farmers

Smallholder farmers in Sub-Saharan Africa are:

- The most numerous food producers;
- Majority women;
- Integral to solving the climate crisis;
- Experiencing low crop yields; and
- Using unsustainable practices.

Smallholder farmers are an attractive impact target. They represent the lowest income part of these economies. By raising yields and improving sustainability, multiple development goals are met:

- Increased incomes;
- Reduced deforestation;
- Increased food security;
- Particular benefit for women.

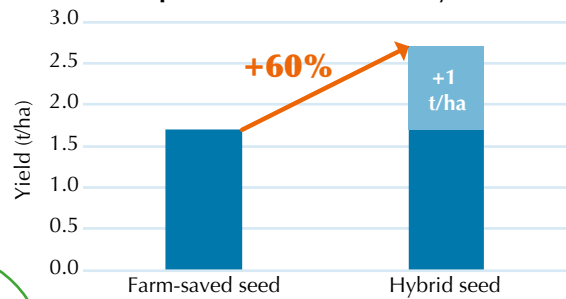


#### Increase access to improved inputs

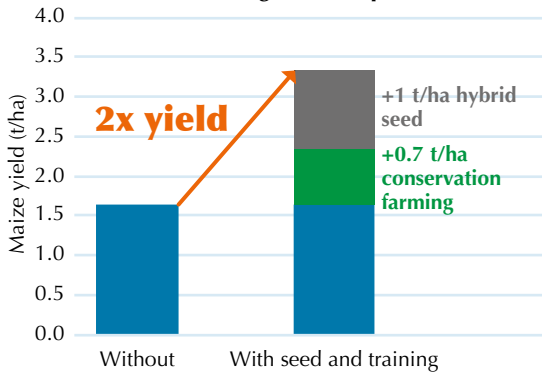
To improve their productivity, smallholder farmers need access to higher quality inputs, in particular higher yielding hybrid seed, and more productive livestock/poultry breeds.

Providing hybrid seed that is adapted to local conditions, for example, has an enormous multiplier effect. Academic research suggests planting hybrid seed produced ~60% greater yields than those using farm-saved seed.

The impact of our seed on maize yields



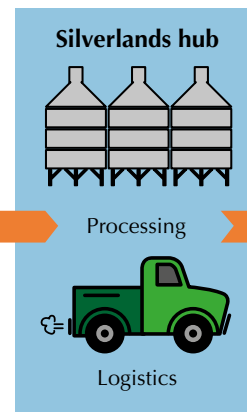
Yields double when using hybrid seed and the right techniques



#### Improve on-farm management techniques

To further increase yields and build climate resilience, we provide training to smallholder farmers in conservation farming and animal/poultry husbandry.

Training and extension support for farmers can improve their agricultural productivity enormously. For example, training in conservation farming techniques makes a material difference, increasing yields on average by 0.7 tonnes per hectare – doubling yields when combined with hybrid seed.



#### Provide a market for high value crops

The practice of monocropping is a key issue that leads to deforestation as farms need to be abandoned once disease pressure increases and soil health declines. Smallholder farmers thus require markets for rotation crops. A 'market' for most farm production is normally a processing plant: a soya processor, or fruit packing and juicing plant for example. In our hub out-grower model, neighbouring farmers are producers for a central processing facility, developed by the portfolio company.

### 3.5 Developing New Industries and Partnering with Communities

We are growing plantation crops that are often the first of their kind in the country. Spearheading these new industries will open doors for others. This creates jobs, foreign currency generation and tax revenues.

To enable skills and investment to grow plantation crops, on some farms we partner with communities using a joint venture model. Profits are split between the community and the portfolio company.

The JVs provide incomes to over 1,300 beneficiaries. The combined average profit earned by the three JVs over the last three years is \$2.3m per annum, or \$1,800 per beneficiary.



**New industries:** Date palm plantation, Namibia (left); and a pecan plantation, Zambia (right).



**Partnering with communities:** Mawecro joint venture, South Africa (left); and Libcro joint venture, South Africa (right).

### 3.6 Operating Responsibly and Creating Impact at our Operations



#### Conserving habitats & managing our environment

At our operations, we protect ~30,000 ha of natural eco-system in the non-cropping areas, that protects biodiversity and prevents emissions.

We also implement the highest environmental standards to:

- Reduce our carbon emissions;
- Implement efficient water use;
- Protect and build soil health;
- Minimise agrochemical use; and
- Manage our waste responsibly.



#### Quality jobs

Providing quality employment is a key aspect of our impact. We expand businesses and increase the number of employees - especially those in skilled positions, with training opportunities provided. Each company is supported to implement the highest ESG standards to ensure jobs are safe, fulfilling and inclusive for a diverse range of people.

The Silverlands Funds directly employ 11,000 people who earn salaries totalling \$60 million per annum.



#### Gender

We focus on women and believe that getting money into the hands of women builds inclusive societies, sustainable economies and healthier, better educated families. Women play a key role in the agricultural sector.

The main beneficiaries are employees and smallholder farmers. Of the 454,000 people who are benefiting directly through increased incomes, 67% (306,000) are women.

At our operations there are numerous gender focused initiatives to ensure that women are empowered to fully participate in the workplace.



#### ESG management

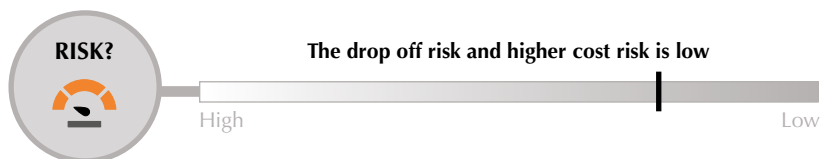
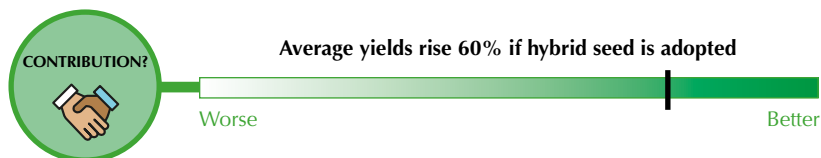
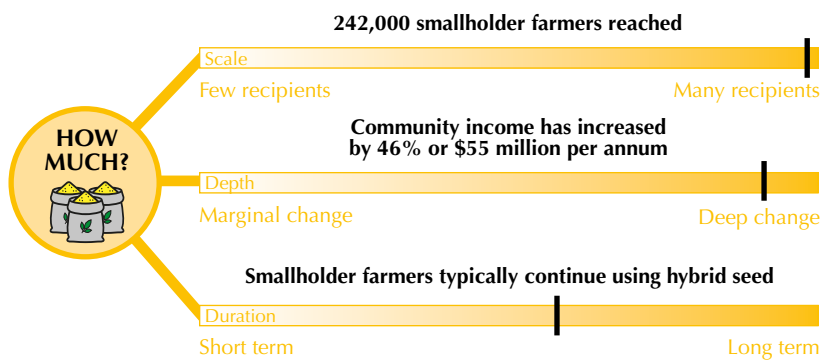
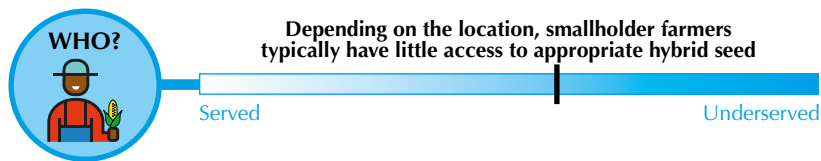
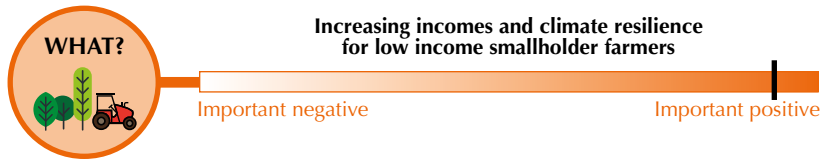
We integrate our ESG standards throughout the investment cycle and support portfolio companies closely. All our operations commit to our standards, which include the IFC Performance Standards, UN Global Compact and our own Responsible Investment Code.

To support implementation on the ground all operations have dedicated ESG personnel and controlled investments report regularly on ESG topics. The performance of all our portfolio companies has been assessed against the IFC Performance Standards and scored against our Responsible Investment Code for 10 years. Assessments are independent at least every second year.

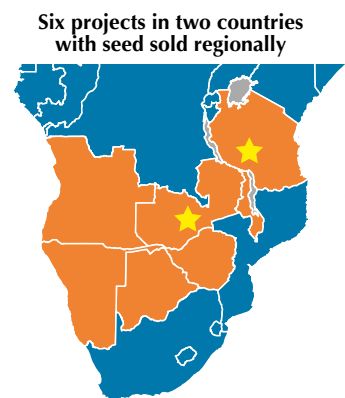
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# Seed Sector

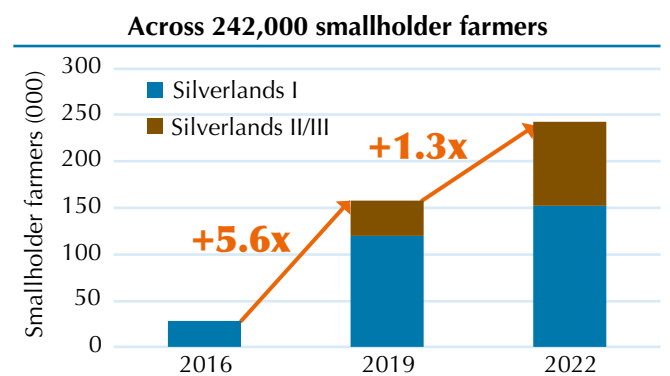
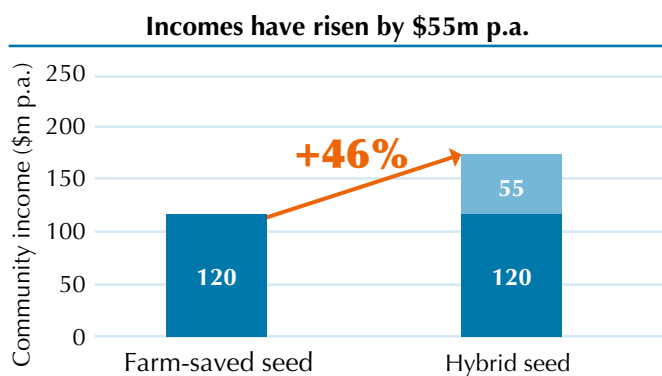
Creating a Positive Impact in the Seed Sector



Hybrid seed increases yields for Africa's most numerous and vital food producers, smallholder farmers. It is key to solving food insecurity and reducing land clearing.



## How Much?



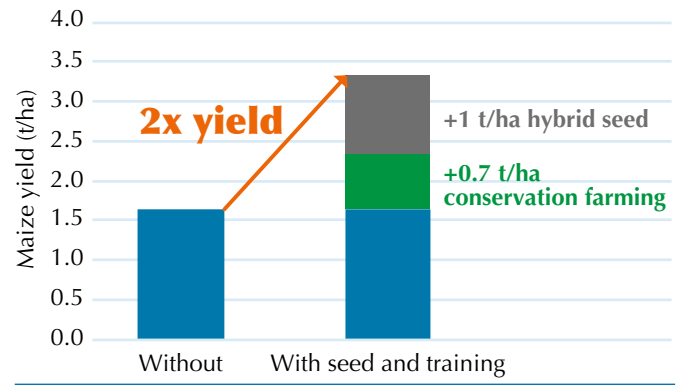
**Challenge**

High population growth and low yields have resulted in high levels of food insecurity and poverty, and in negative environmental and climate impacts. Under current production and yield trends, to feed Sub-Saharan Africa’s increasing population, vast areas of woodland are expected to be deforested by 2050. By raising yields on already cultivated land, this deforestation can be reduced or prevented.

**Solution**

One step in solving these challenges is to improve smallholder farmer access to hybrid seed. Academic research shows that hybrid seed can increase smallholder farmer yields by an average of 1 tonne per hectare, and when combined with training in conservation farming methods, yields can be approximately doubled. This can increase incomes by an estimated 80% per annum per farmer.

**Yields double when using hybrid seed and the right techniques**



Zamseed extension officers provide training on the characteristics of different Zamseed varieties.

**Protecting biodiversity, reducing deforestation and carbon emissions**

By increasing yields on already cultivated land, hybrid seed saves land from being cleared. To grow the same amount of produce using farm-saved seed would, we estimate, require 197,000 ha of additional land.



### Developing improved seed varieties

Many hybrid seeds from developed countries are bred to perform in optimal conditions, with high levels of fertiliser and secure water, typical of large commercial farms. However, these seeds are not adapted to the African climate and would not perform in conditions commonly found on smallholder farms in Sub-Saharan Africa, which may lack enough fertiliser, optimal soil conditions, secure water sources, access to pesticides or adequate storage.

Our operations produce hybrid seed specifically developed to perform under the conditions typical of smallholder farmers, including characteristics such as drought tolerance, disease tolerance and low fertiliser requirements. Multiple varieties of seed are bred or distributed by our six operations, including maize, sorghum, potato, pigeon peas, soya, wheat and sunflower (see the case studies below).

### Hybrid seed: Developing new and better seed

Seed research typically takes place on research farms or plots. Two parent lines with desired traits are identified, for example, one which is high yielding and one with drought tolerance. The varieties are then cross pollinated. The variety selected from the many crosses can then be grown over large areas, a process that entails careful cultivation with vigilant attention to detail.

## Case Study - Zamseed

**A regional seed business specialising in the production of improved seed for smallholder farmers.**

### Introduction:

Established in 1980, with headquarters in Lusaka, Zambia, Silverlands II made its first investment in Zamseed in 2018 with the aim of growing the business into a regional seed champion with significant social and environmental benefits. Silverlands II/III owns ~86% of Zamseed.



Orange maize: Vitamin A enhanced.



Smallholder demonstration plot, Zimbabwe.

### □ What?

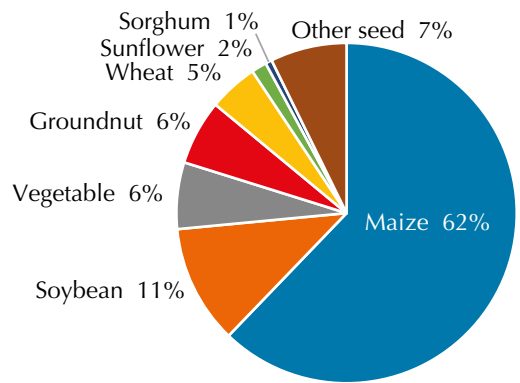
Zamseed benefits from exclusive rights to its own high-quality hybrid seed varieties that are specially bred by its inhouse research team to perform on smallholder farms across Sub-Saharan Africa.

By selecting varieties that are drought tolerant, perform with low fertiliser input and are tolerant of common diseases, Zamseed produces seed that significantly outperforms seed saved from the last season's crop. This hybrid seed improves the incomes and food production of resource-poor farmers.

**Products**

Zamseed now sells 14 hybrid maize varieties. This includes varieties specifically developed with high nutritional content and climate change mitigation qualities, such as drought tolerance and very short season times. Other products include soya beans, sorghum, sunflower, cow peas, groundnuts, pigeon peas, upland rice seeds and a variety of vegetable seeds. Maize underpins farmers’ incomes and livelihoods and forms most (62%) of Zamseed’s revenues. The goal is to build a broad seed product range to help farmers diversify across different crops.

**Zamseed sales split by revenue 2022(E)**

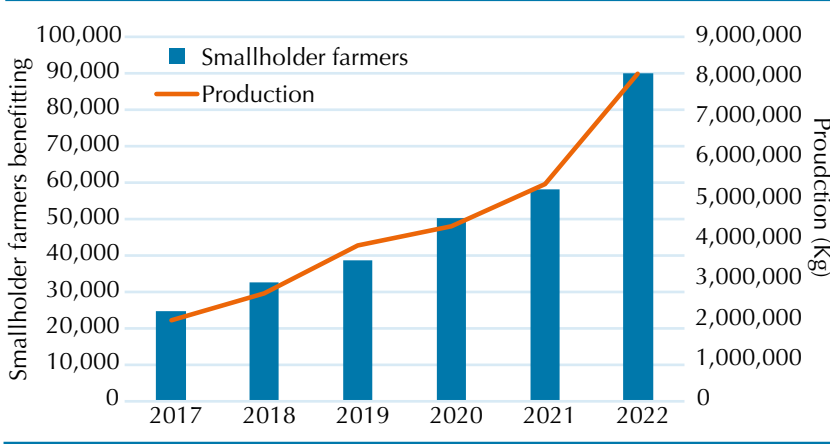


**Research and development**

Research and development is core to Zamseed, led by two of the top breeders in Africa: Dr. Bhola Verma and Dr. Amsal Tesfaye, guided by a committee of experts. In 2020, Dr. Amsal Tesfaye was recognised as one of the 20 most influential plant breeders in Africa by SAPBA, an association of his peers. Zamseed breeds and develops new varieties on its research farm near Lusaka. These varieties are tested under as many farming techniques and conditions as possible across Sub-Saharan Africa.

**Who?**

**Zamseed: Production linked to impact**



Zamseed currently sells seed in six countries: Zambia, Tanzania, Angola, Botswana, Namibia and Zimbabwe, almost exclusively supplying smallholder farmers. These farmers, the majority of whom are women, typically have little access to hybrid seed and training, and have low incomes.

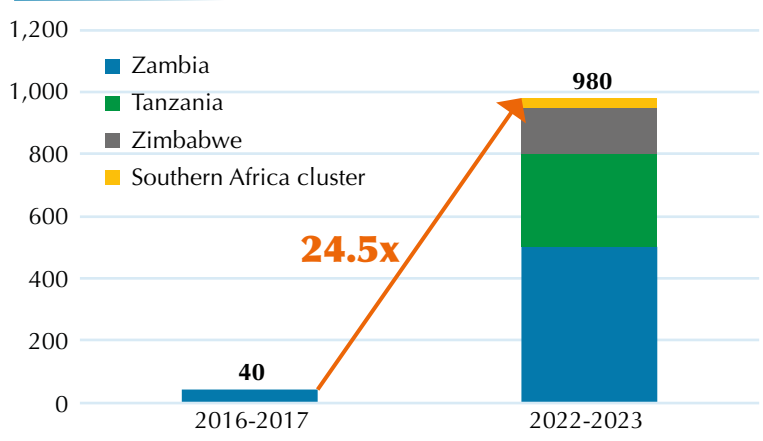
Zamseed’s impact is directly linked to its production – as production increases so do the number of smallholder farmers benefitting.

**Linking smallholder farmers to seeds: Demo plots**

Using a network of demonstration plots and extension officers, Zamseed ensures information on its seed reaches the farmers that need it. Demonstration plots allow local communities to see first-hand how the varieties perform in their location. Zamseed currently has 980 demonstration plots, up from approximately 40 prior to investment in 2018.

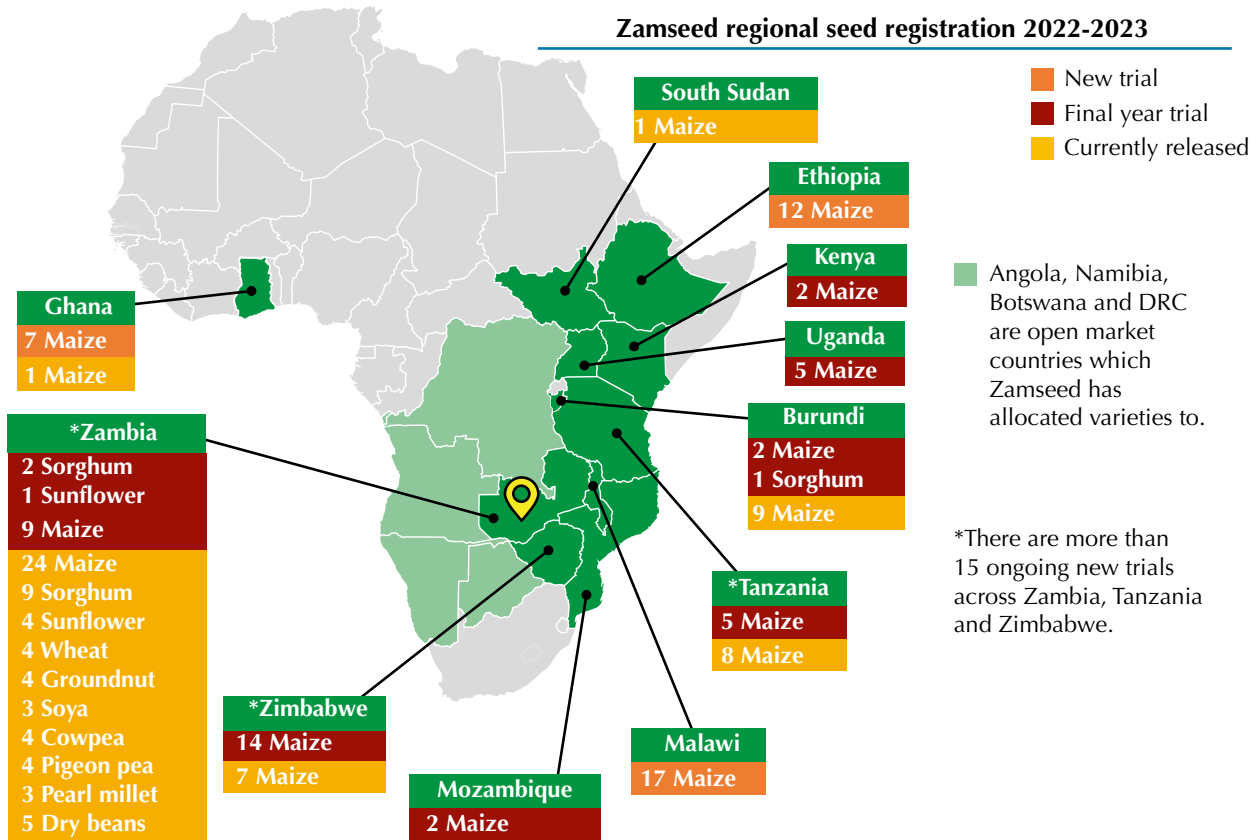
Zamseed’s team of 36 extension officers visit the farmers overseeing demonstration plots to provide support and training.

**Zamseed demonstration plots**



## Regional expansion

Zamseed has undertaken a regional seed registration process across multiple neighbouring countries. By trialling varieties in countries that are included in seed harmonisation laws, Zamseed is registering a wide range of varieties efficiently across the region. This year there are 68 individual seed variety trials underway, with 47 more trials planned.



## 2020 Smallholder farmer survey:

**In a 2020 survey, Zamseed found 96% of farmers reported a positive impact to their lives from planting hybrid seed. 97% of farmers reported that their income is “better” due to planting hybrid seed.**



Zamseed demonstration of a yellow maize variety, which is visually attractive to customers.



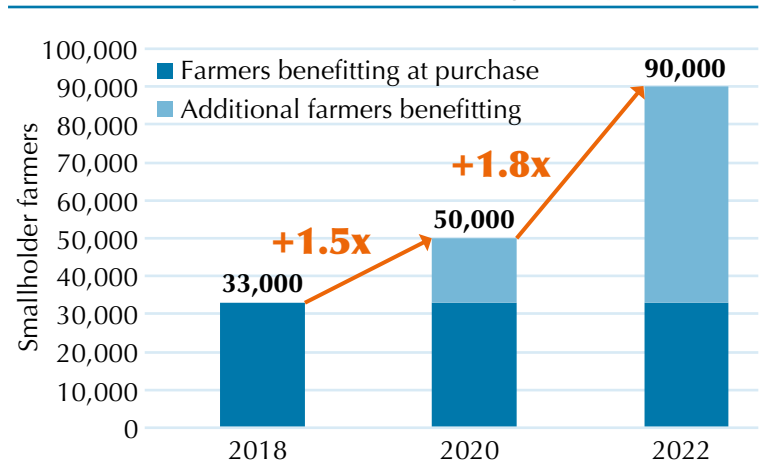
Pollinating sunflowers.

## How Much?

### How many?

- Zamseed’s seed sales have increased 32% per annum since Silverlands II first invested.
- ~90,000 smallholder farmers now benefit economically directly from Zamseed’s improved seed.
- Zamseed represents a substantial opportunity for out-sized impact. If the company can meet sales targets then by 2033, it is forecast that ~547,000 smallholder farmers will benefit economically representing a substantial opportunity.

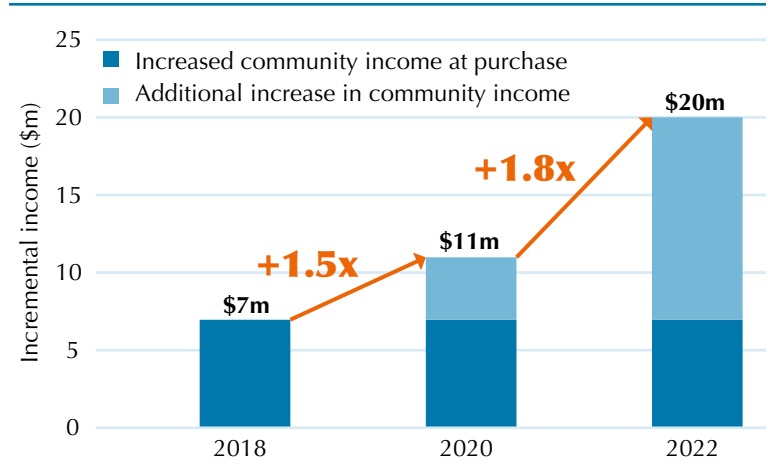
Increase in people benefitting directly



### By how much?

- Smallholder farmers typically earn \$220 more per annum when using Zamseed’s seed, a 42% increase in income.
- In 2022, Zamseed increased total community income by \$13 million per annum.
- By 2033 if the management team can execute as planned, communities are projected to earn an additional \$116 million per annum as a result of Zamseed’s operations.

Increase in community income per annum



## + Contribution

Smallholder farmers in Sub-Saharan Africa are comparatively underserved by improved seed producers in both access and suitability of varieties. In Sub-Saharan Africa, only 36.5% of cultivated area was planted with hybrid seed<sup>8</sup>. Some countries have much lower adoption rates, such as Angola where only 4.1% of cultivated area is planted with hybrid seed. Of the hybrid seed available, few companies have germplasm bred to perform under typical smallholder farm conditions that can contribute to solving challenges experienced by smallholder farmers, such as:

- **Nutritional deficits:** In Zambia, it is estimated that ~54% of children under five are vitamin A deficient. Zamseed’s orange maize contains 2.7x more Vitamin A than a regular variety.
- **Climate resilience:** Zamseed’s short season and drought tolerant varieties support smallholder farmers to mitigate some of the risk of climate changes, such as droughts.

<sup>8</sup>Abate (2017)

## △ Risk

The risk that the impact created by hybrid seed lasts for the long-term is contingent upon farmers using the seed for each season; however farmers' increased incomes should enable them to purchase seed for the following season. This drop-off risk is considered low but may occur in times of financial stress. Farmers in some countries have become used to government subsidies and may reduce hybrid seed purchases if subsidies fall away. This can be overcome by providing education to such farmers because buying improved seed raises farmers' profits, allowing for the cost of seed.

The risk of farmers unsustainably raising their costs is mitigated by focusing on varieties that perform well under smallholder conditions such as requiring appropriate fertiliser levels and educating farmers on how to ensure they achieve the best results.

## Other Seed Projects

### Introducing higher yielding sunflower seed in Tanzania

Across Tanzania, more than 1 million ha are planted to sunflower, almost entirely grown by smallholder farmers. The country consumes 570,000 tonnes of cooking oil annually, however, only produces 180,000 tonnes<sup>9</sup>. This shortfall results in high levels of importation. Silverlands Ndolela (SNL) is the first producer of hybrid sunflower seed in Tanzania, registering two new varieties that produce 8% more vegetable oil than regular varieties. In 2022, sunflower seed produced by SNL. This is estimated to be used by 21,000 smallholder farmers to plant 10,000 ha of sunflower, the higher yields increasing community income by \$1.5 million per annum.



### Producing hybrid seed in Tanzania and Zambia

Silverlands I is now the largest producer of improved seed in Tanzania, a country whose adoption rates for hybrid seed are very low. In total, Silverlands I produces 10,000 tonnes of improved seed which is planted on 208,000 ha by 152,000 smallholder farmers. With increased yields from growing higher-yielding seed produced by Silverlands I, we estimate that each farmer's profits should increase by 48% annually. This yield improvement is expected to increase incomes of smallholder farmers by \$35 million this year, and this should be a sustainable and ongoing income improvement for these smallholder farmers.

<sup>9</sup>Tanzania Investment Centre (TIC | Edible Oils)

### Silverlands Ranching: facilitating smallholder production of sorghum

Silverlands Ranching distributes improved sorghum seed to surrounding smallholder farmers as an out-grower model for Zambian Breweries. Silverlands Ranching then provides training and a market to growers, buying the produce from the smallholder farmers at fair and transparent prices. In 2022, Silverlands purchased sorghum grown by 360 farmers. This gives smallholder farmers the opportunity to diversify their cropping and reduces the risk of farmers being exploited by traders or middlemen.



### Introducing disease tolerant seed potatoes in Tanzania

Silverlands Ndolela has introduced new blight-resistant potato varieties to Tanzania. These varieties will benefit smallholder farmers who typically achieve low potato yields of 5 - 10 t/ha, when yields of up to 40 t/ha are possible. The reasons for these low yields include lack of good quality clean seed of improved varieties; no crop rotation; and losses due to soil diseases. One variety, with an excellent yield of 48 t/ha, was almost completely blight-resistant in our 2019 trials in Southern Tanzania, making it suitable for smallholder production. Silverlands Ndolela has gone through the lengthy process of registering multiple varieties in Tanzania, making this seed available for smallholder farmers.

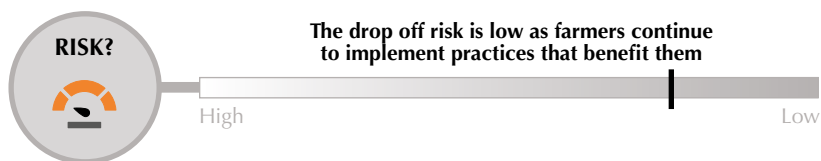
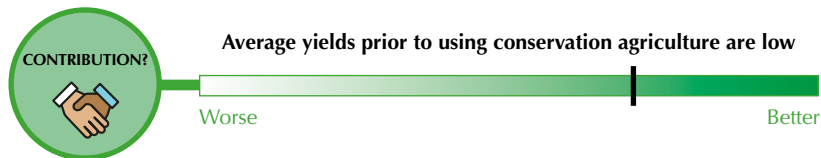
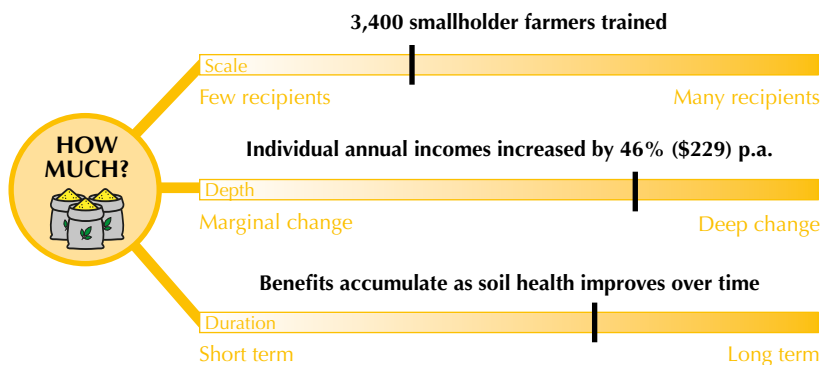
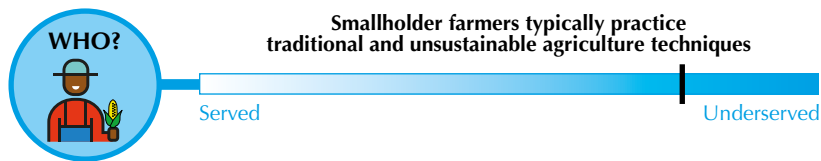
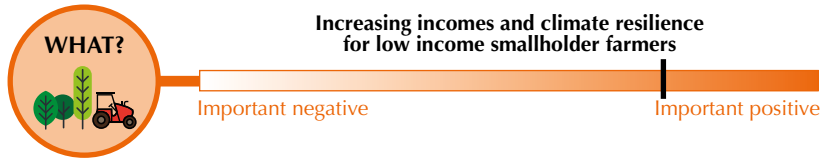
Selous Farm, Silverlands Ndolela, Tanzania.



# Technical Support

Creating a Positive Impact through Technical Support

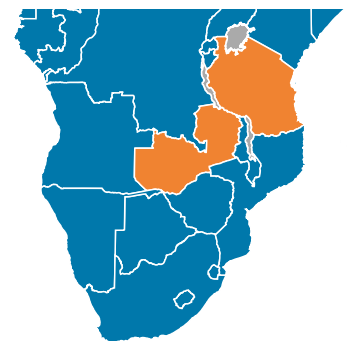
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We are increasing access to conservation agricultural training to raise the incomes for smallholder farmers, and improve soil health and climate resilience.



3,400 farmers trained across two countries



## How Much?

	Number of smallholder farmers trained	Income improvement % (\$ p.a.)
Grains farmers	2,100	33% (\$166 p.a.)
Poultry farmers	1,300	66% (\$330 p.a.)
<b>Total</b>	<b>3,400</b>	<b>46% (\$229 p.a.)</b>

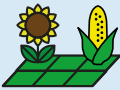






**Challenge**

Smallholder farmers in Sub-Saharan Africa typically practice inefficient traditional agricultural methods that result in poor yields and production, ecological damage, and increased exposure to the negative impacts of climate change. Farmers are typically located in rural areas, with little access to agricultural training or services.

**Solution**

We provide training to smallholder farmers in techniques and practices that can increase their production and incomes for the long term as well as reverse ecological damage. Examples of training include conservation farming techniques, veterinary practices and brooder poultry farming. We utilise multiple training strategies that are focused on extending training to smallholder farmers in rural and often neglected areas, as shown in the table below:

Crop production		Livestock production		
Demonstration plots	Champion farmers	Booklets & materials	Extension officers	Training centre
				
To effectively prove the impact of the training and improved techniques we cultivate demonstration plots that show the methods and results to the farmer in person and in the same ecological environment.	Extension services are often limited by resources. To increase the scale and reach of the training, champion farmers are trained and supported by extension officers to enable them to demonstrate the positive effects of good agricultural practices to their neighbours.	Booklets and training materials enable farmers to return to the training and record their own results.  Training material is additionally used as part of the poultry management curriculum at Silverlands’ poultry training centre.	Extension officers provide training to farmers in remote areas.  This is especially important for female smallholder farmers who are often responsible for the household and are limited in their ability to travel long distances.	To train farmers in more complex techniques, such as brooder poultry farming, we built a training centre where farmers can attend weeklong courses to increase their poultry production and kick-start the poultry value chain at the village level.

# Case Study - Conservation Farming

**By adopting conservation farming methods, smallholder farmers can increase their incomes, build climate resilience and reverse ecological damage**

**Introduction**

Conservation farming techniques are a widely accessible set of agricultural practices that aim to build soil health, retain soil moisture, and increase nutrients which results in increased yield, incomes, reduced deforestation and greater climate resilience.



Training smallholder farmers at Silverlands Agriculture Services’ demonstration plot in Central Zambia.



## □ What?

Conservation farming has three key principles that can be followed using resources available to smallholder farmers, requiring minimal financing:

- Minimum or no tillage;
- Using crop cover, residues or mulch;
- Crop diversification, whether intercropping or rotation with legumes.

By adopting these techniques, academic research shows that smallholder farmers' yields can increase by 0.7 t/ha. Conservation agriculture also has positive environmental impacts. With minimum tillage, farmers can improve moisture levels and biodiversity in soils, increasing fertility and reducing the effects of droughts. Rotating with a legume fixes soil nitrogen which increases yields and reduces pest and disease pressure common under monocropping. Additionally, conservation agriculture helps return atmospheric carbon to the soil.



**Demonstrating how yields are impacted by planting time: All photos taken on 2nd February.**



Maize Planting Date	16 Nov	25 Nov	4 Dec	15 Dec	24 Dec
Yields (t/ha)	9	8.3	7.3	6.5	3.4
Soya Planting Date	25 Nov	5 Dec	18 Dec	29 Dec	4 Jan
Yields (t/ha)	4.2	4	3.7	3.5	3.1

## Who?

### 1 Southern Zambia: Smallholder farmers at Silverlands Ranching

Silverlands Ranching trains smallholder grain farmers in conservation agriculture and drought resistant crops with assistance from Foundations for Farming, the Conservation Farming Unit and AgDevCo. Silverlands Ranching has built a close relationship with the nearby smallholder grains farmers through regular interaction and training. As the region is prone to drought, training has focused on conservation farming methods that can increase moisture retention and the cultivation of drought resistant varieties to reduce the negative effects of climate volatility.

In 2022, Silverlands Ranching started following Foundations for Farming' conservation farming method. Plots are made up of four different crops, each with 52 lines, aimed at providing a year's worth of food security for a family (one line per week). Once those plots are established, the farmer develops more plots that are sold.



To ensure training is accessible at the village level, SLIC extension officers enrolled in a 'train the trainer' exercise with Foundations for Farming to prepare them to train the wider community. Ten extension officers received training and cultivated their own demonstration plots. Midway through the growing season each extension officer's plot was then scored. The winner demonstrated the incredible yields that can be achieved on smallholder farms if correct conservation agriculture techniques were followed – it is estimated that he will achieve 12 t/ha on his plot (below).



## 2 Central Zambia: Maize, soya and groundnut farmers around SASL and SZL

In Central Zambia, the two Silverlands grains farms (SZL and SASL) have partnered with Foundations for Farming, to teach surrounding communities the key conservation agriculture principles as well as other agricultural techniques. Demonstration plots are run on the Silverlands farms and by community groups in surrounding areas, with over 200 people regularly attending training.

Sixteen Foundations for Farming training groups are currently running, with seven of them running for three seasons or more. The best groups are getting yields of 2-3 t/ha for soya and 6 t/ha for maize. These yields are a huge improvement on average smallholder yields (e.g., typically 1.5-2 t/ha for maize) and demonstrate the improvements that implementing conservation agriculture can have in just a couple of years.



Communities run their own demonstration plots with support from Silverlands and Foundations for Farming.



The training includes composting that naturally replenishes the soil.

## How Much?

Project	Crops	Number of demonstration plots	Number of farmers accessing training
Zambia Grains Farms	Maize, soya, groundnuts	12	206
Silverlands Ranching	Maize, sunflower, sorghum	64	1,920
<b>Total</b>		<b>76</b>	<b>2,126</b>

### How many?

- 2,100 smallholder farmers were trained by Silverlands projects in 2022.

### By how much?

- Smallholder farmers typically earn 30%+ (\$170) more per annum after adopting conservation agricultural techniques.

## + Contribution

In the areas we operate, smallholder farmers have typically received limited agricultural training and continue to practice inefficient and damaging techniques. By partnering with local experts, Silverlands has provided relevant and accessible training in multiple ways.

## △ Risk

Alignment risk – medium: SilverStreet is considering how best to ramp up the scale of the training given its central importance to raising yields and reducing deforestation.

### Looking to the Future: Accelerating our Impact with Agricultural Hubs

To accelerate our impact and increase the scale of agricultural training programmes, we are developing agricultural hubs in key growing areas. The hubs will be a centre for surrounding farmers to access:

- Training in conservation agriculture;
- Distribution of hybrid seed;
- Markets for maize and soya, to supply our poultry business among other offtakes;
- Extension assistance across a ~25km radius; and
- Facilitation of enhanced communications with farmers, e.g., mobile phone apps.



The Foundations for Farming training centre in Zimbabwe is a model training hub.

To ensure maximum utilisation of the hubs, they will be strategically located in the areas with a high density of smallholder agriculture. Each hub will service an area with a radius of 25Km with training supported by demonstration plots, champion farmers and extension officers.

# Case Study - Poultry Training

Training and extension services are invaluable to smallholder poultry farmers whose productivity and profits can increase substantially by following correct procedures. Silverlands Tanzania provides training and support to poultry farmers across the country in various ways:

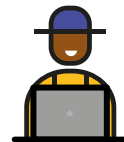
- 1 The **Silverlands Poultry Training Centre** was built to provide in-depth training to farmers. Poultry farmers attend courses and receive accreditation.
- 2 Silverlands’ team of **36 salespeople, all trained** to provide advice during home-visits across Tanzania.
- 3 **Online support** via the Silverlands’ Facebook page with 27,000 followers and Silverlands’ HelpDesk - an online platform to support farmers, who can ask questions via a helpline, email, webpage, and a mobile app.



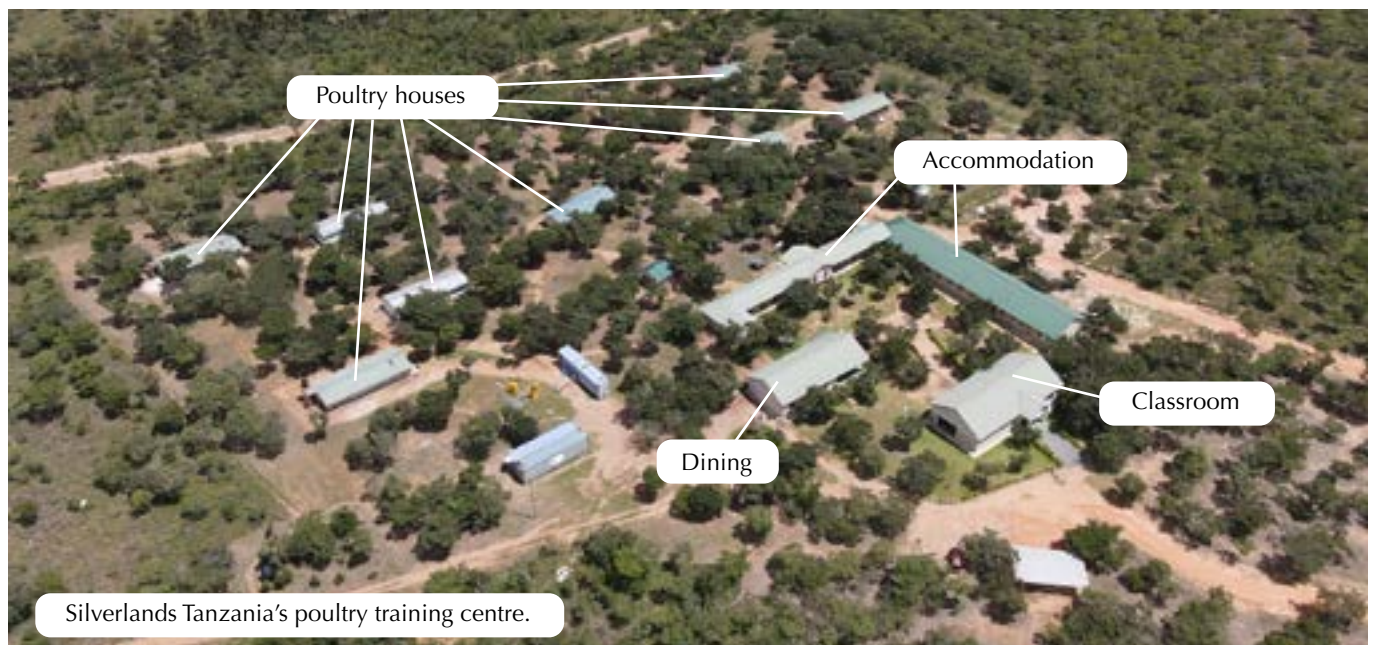
Over **1,300** farmers trained at Silverlands’ Poultry Training Centre.



Over **40%** of students were female poultry farmers.



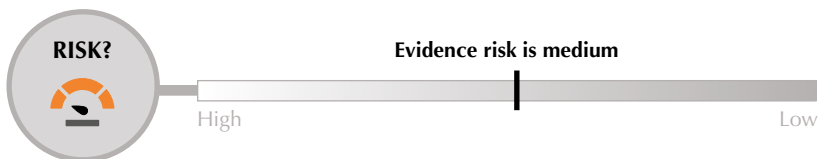
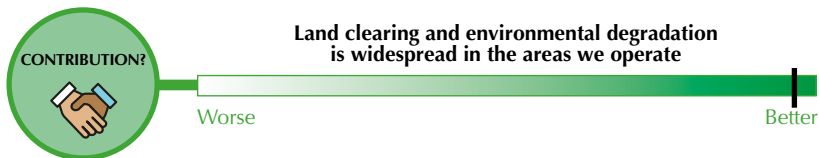
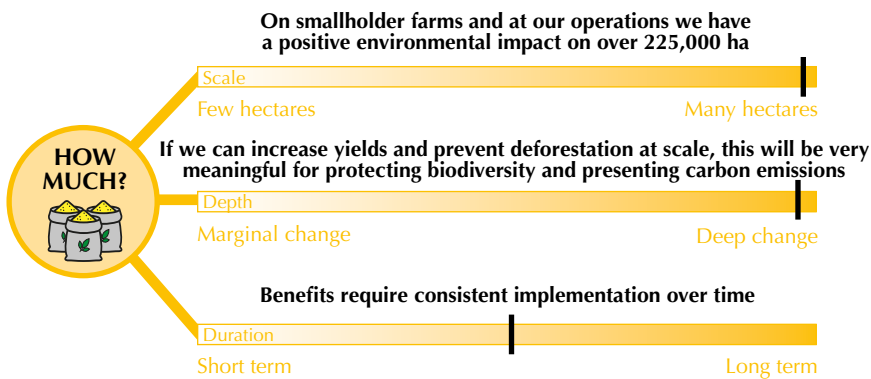
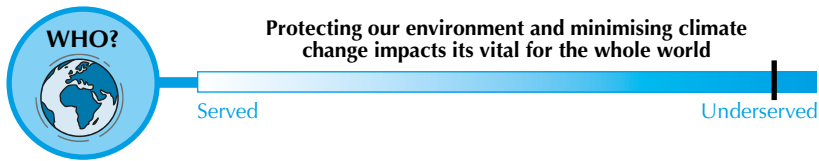
**27,000** farmers receiving advice via Silverlands Training Centre Facebook page.



# Natural Capital

Creating a Positive Impact through Protecting our Natural Capital

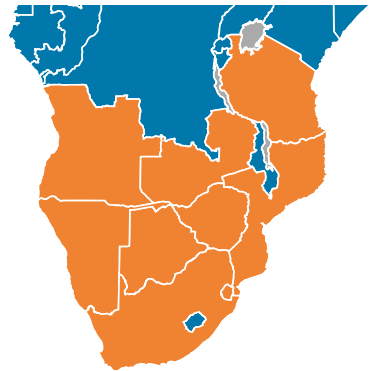
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At our operations and on smallholder farms across Sub-Saharan Africa we are working to protect our natural capital, reduce GHG emissions and build climate resilience.



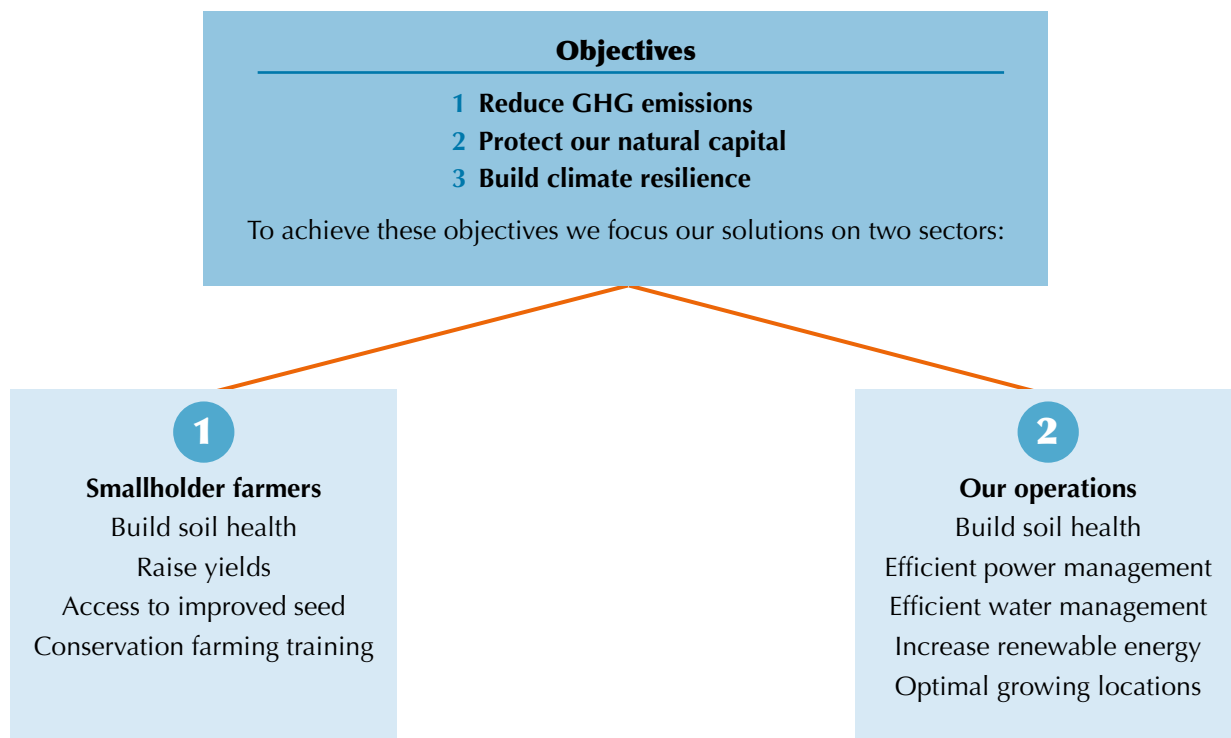
We have a positive environmental impact in 9 countries



**Hybrid seed produced by our operations can be used by smallholder farmers to plant 315,000 ha. If yields can be raised by 1 t/ha on this area, then an additional 197,000 ha does not need to be cropped.**

Our objective is to protect natural capital across Sub-Saharan Africa by halting deforestation, protecting our conservation areas and operating with climate smart principles. Protecting our natural capital means protecting everyone’s natural capital. To meet current ecological challenges and prevent future climate challenges, we focus on integrated solutions that can positively affect the climate, the environment, and people’s livelihoods.

Our environmental strategy has three principal objectives. To achieve these, we focus on both smallholder farmers and our own operations:



## Smallholder Farmers: Raising yields to minimise deforestation and protect biodiversity

Raising yields on existing agricultural land in Sub-Saharan Africa is critical to preventing deforestation and conversion of more land to agriculture. In a recent study, Williams et al. (2021) found that this was the single most effective change to preventing deforestation.

Reducing deforestation is essential to protecting biodiversity and preventing vast amounts of carbon dioxide from being released to the atmosphere. Maintaining healthy ecosystems also improves yields by maintaining water cycles, regulating microclimates around fields and providing habitats for natural pest predators. All these factors also improve lives and livelihoods.

SilverStreet’s strategy to raise smallholder farmer productivity is to:

- Increase access to improved seed for smallholder farmers;
- Provide technical support for smallholder farmers to build soil health, which has yield benefits and prevents erosion; and
- Provide markets that enable smallholder farmers to introduce rotation crops thereby halting monocropping, a key cause of farm abandonment and deforestation.

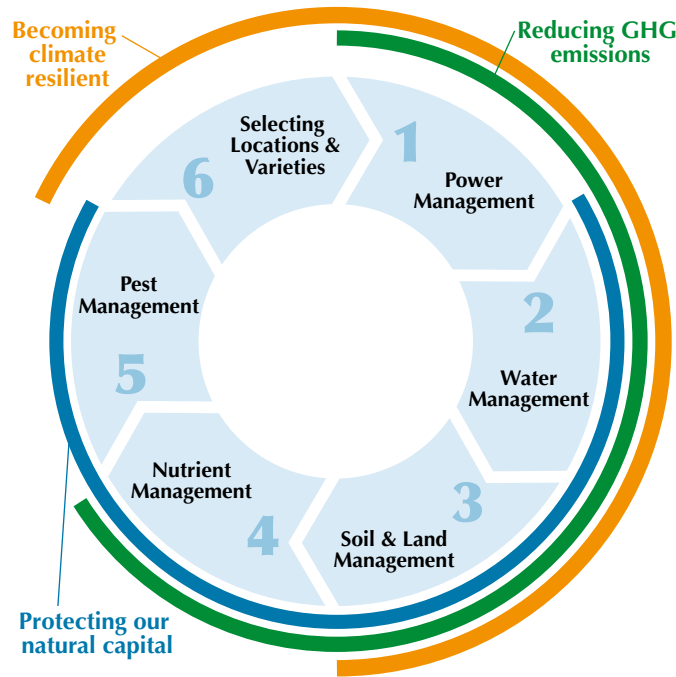
**Our results to date**

If yields can be increased on existing land, this prevents the need for clearing additional cropping area. Hybrid seed produced by our operations can be used by smallholder farmers to plant 315,000 ha. If yields can be raised by 1 t/ha on this area, then an additional 197,000 ha does not need to be cropped. This may reduce the need to convert indigenous ecosystems to agriculture or enable existing cropping land to be rehabilitated to indigenous ecosystems.

Hybrid seed is additionally key to equipping smallholder farmers with climate smart tools. Our hybrid seed is bred to be drought and heat stress tolerant, ensuring consistent yields and increasing resilience to climate change for the farmer.

## Our Operations: Managing our Environment

Climate change and natural capital are intricately linked. We concentrate on effective solutions that can achieve multiple goals. Specifically, at our operations, we focus on six areas to protect our natural capital, reduce our emissions, and build climate resilience:



**Power Management**

**Renewable energy:** We have implemented several renewable energy projects which add efficiency and directly reduce emissions. These include:

- An 800 kW hydroelectric power facility in Tanzania, supplying most of the farms electricity requirements.
- A 500 kW solar power development in Namibia.
- Five solar sites at Crookes Brothers in Eswatini. Since November 2022 they have produced 630,000 kWh.



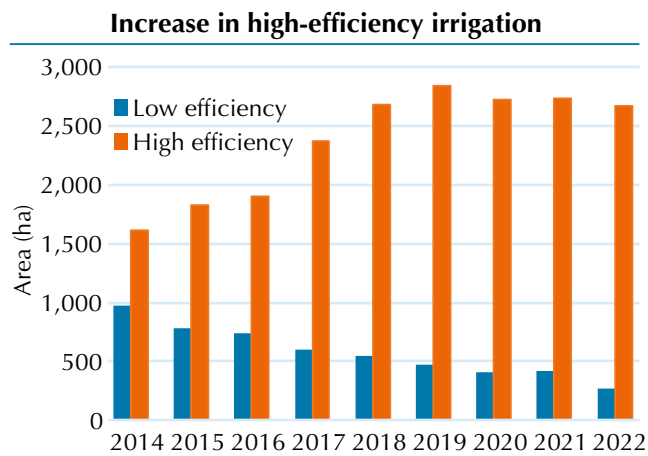


**Building climate resilience:**

Implementing the most efficient technologies, and with diligent on-the-ground management, our managers take extreme care to minimise the volume of water used.

Initiatives to reduce water use include:

- Flow meters;
- Drip and micro-sprinkler irrigation systems;
- Soil moisture probes and weather stations;
- Evaporation pans and automation methods.



**Minimum tillage and crop residue:** By drastically reducing disturbance to the soil, our operations:

- Increase soil organic matter with associated carbon benefits;
- Improve soil moisture retention;
- Protect soil biodiversity and health.

**Crop rotation and intercropping:** Incorporating other crops into the cropping cycle results in:

- Increased nitrogen in the soil when legumes are planted;
- Soil stabilisation;
- Improved soil structure.



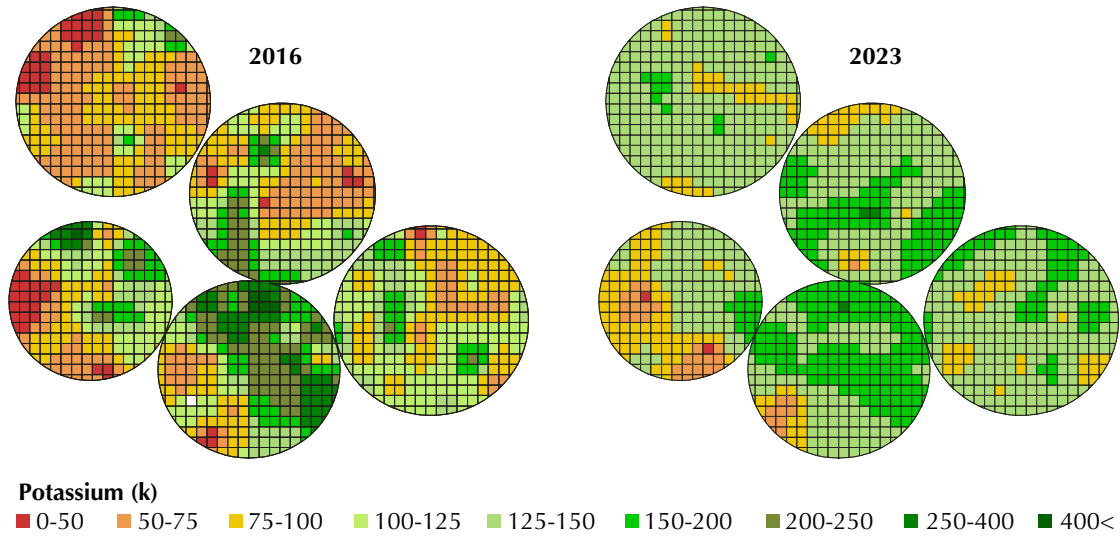
**Controlling erosion:** Contouring, carefully designed by engineers and marked out on the ground by surveyors, is implemented and maintained to reduce surface runoff. Additional erosion control methods are implemented where required.

**Protecting 29,850 ha of indigenous ecosystems:** Our operations protect these uncropped areas through implementing conservation plans that ensure protection of biodiversity.



**Environmental monitoring:** To ensure that our operations are not negatively affecting the surrounding environment we undertake regular monitoring. For example, to check we are not negatively affecting dams and rivers, we use insect larvae as sensitive indicators of water quality.

Soil analysis showing phosphate concentrations over seven years



**Precise application:** By analysing soil and plant health using satellite and drone data, fertiliser can be applied precisely to areas of concern, enabling operations to reduce fertiliser over application.

Applying fertiliser results in atmospheric GHG emissions. Reducing the use of fertiliser is key to minimising environmental impacts and reducing carbon emissions.

**Natural alternatives:** Using natural forms of nutrients reduces fertiliser use and can return organic carbon to the soil. Nutrient rich compost and manure are used as organic alternatives that develop the soil microbiome, facilitating successful plant growth.



Normalised Difference Vegetation Index (NDVI) imagery is used to assess plant health. Here, the team at SZL, Zambia, is using this technology.



Precision pesticide application using drones at SNL, Tanzania.

To maximise the protection of our natural areas and biodiversity we reduce pesticide use as much as possible. We use a variety of methods to reduce pest pressure without using pesticides, initiatives include:

- Maintaining **buffer zones** of vegetation around the cropping areas provides habitats for natural pest predators.
- Using **physical barriers** - such as wrapping sticky tape around the trunks of fruit trees to prevent crawling insects
- Tying up **tags dosed with pheromones** in the deciduous fruit tree orchards; these act as mating disruptors.

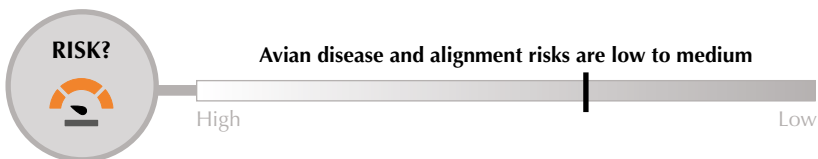
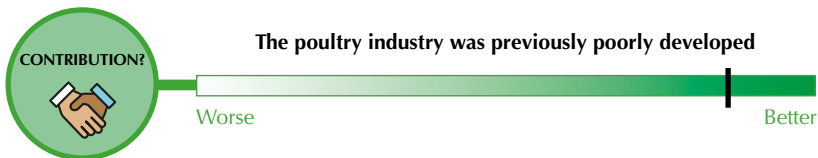
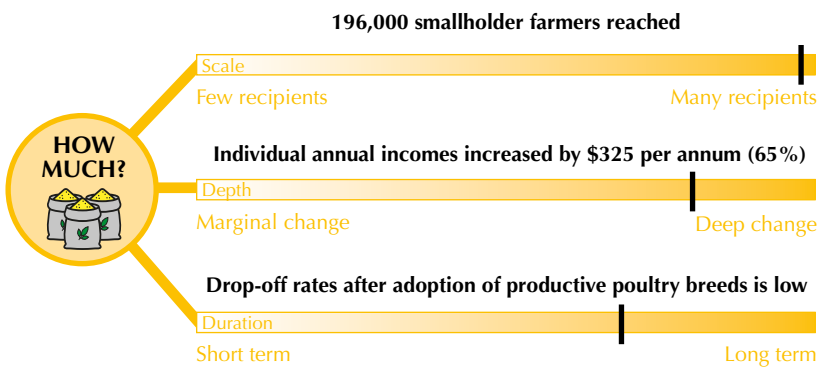
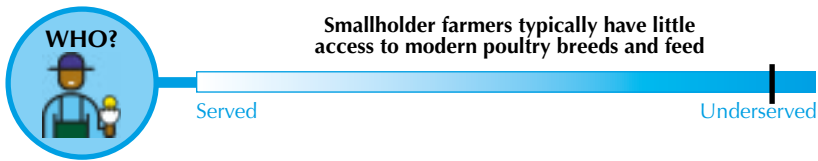
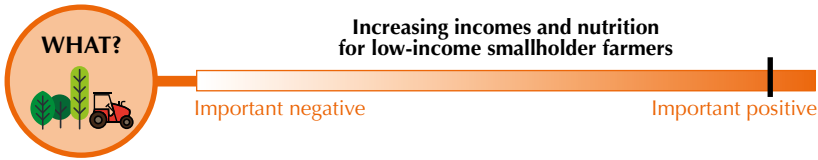
**Building climate resilience:** To mitigate the risk of climate volatility, we seek operations that are in the optimal locations for each crop. This includes climatic conditions and water security.

For example, our operations in Zambia benefit from secure water supplies from dams and nearby rivers and our table grape vineyard in Namibia benefits from optimal growing conditions for table grapes.

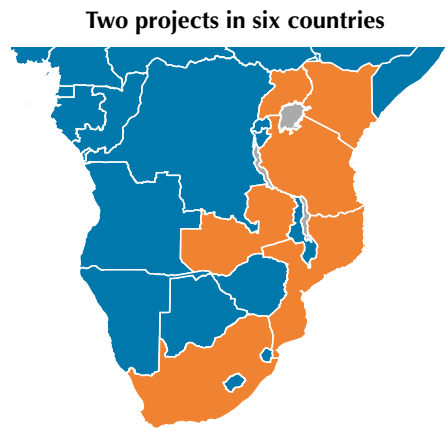


# 7

## Poultry Sector Creating a Positive Impact in the Poultry Sector

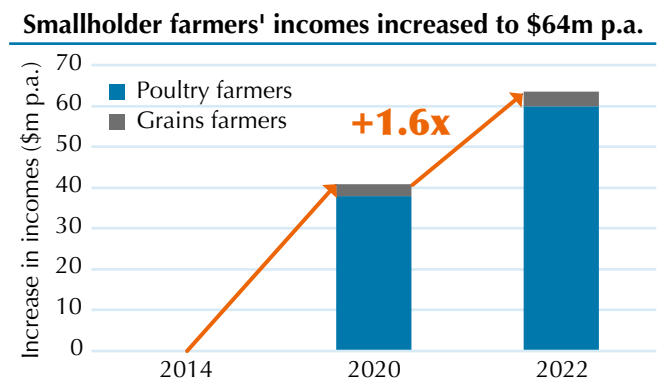
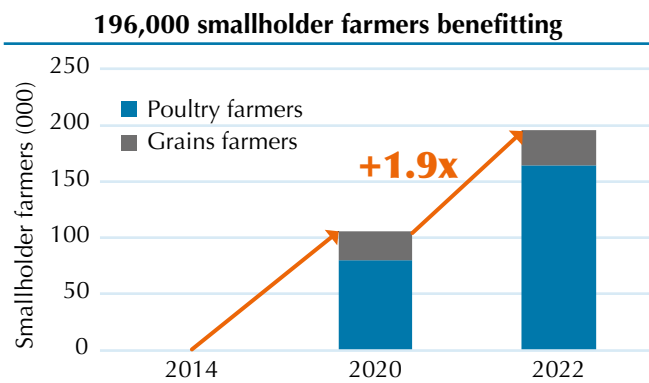


Increasing access to chicken and eggs can substantially improve nutrition and incomes in Sub-Saharan Africa, where nutrition is poor compared to other regions. Increasing poultry consumption can help this.



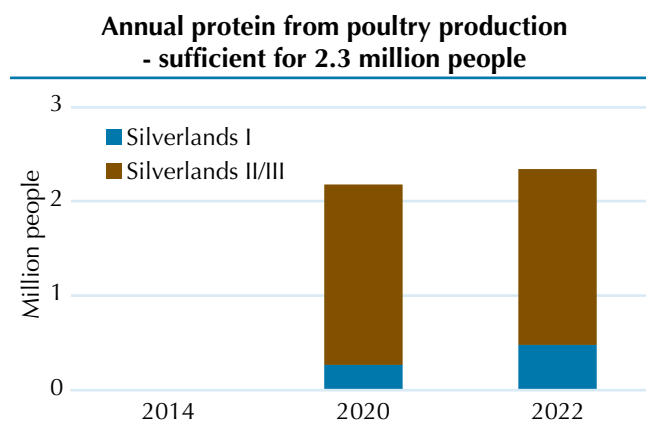
### How Much?

Across the Silverlands Funds ...



### Nutritional impact from our investments in the poultry sector

Investment in this area has substantial impact in fixing the calorie and protein shortages.



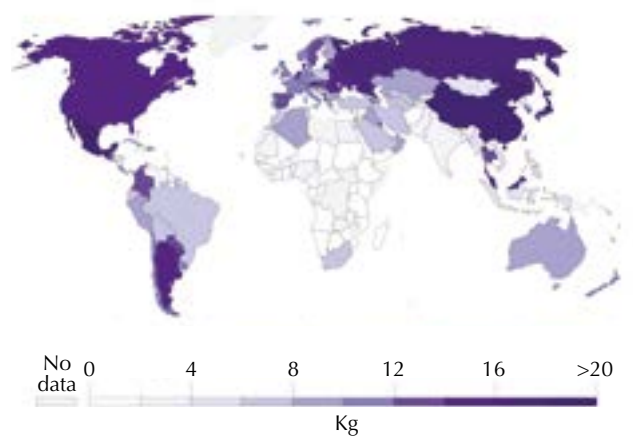
### Challenge

Sub-Saharan Africa experiences some of the highest levels of poverty and malnutrition globally. 19% of people in Sub-Saharan Africa are undernourished, double the global average<sup>10</sup>. 31% of children under five are stunted in Sub-Saharan Africa, compared to 22% globally, and 4.5% in Europe<sup>11</sup>.

### Solution

Fixing the poultry value chain in Sub-Saharan Africa supports access to nutritious protein and decreases poverty. Poultry are practical, cheap, transportable and easy and inexpensive to care for. Eggs are rich in nutrients, eating just one per day can provide a significant proportion of one’s daily requirements of vitamin B12 (25%), protein (13%) and vitamin D (9%)<sup>12</sup>.

### Average per capita egg consumption (kg/year)



### Opportunity to increase poultry and egg consumption in Sub-Saharan Africa

Despite its nutritional benefits, poultry consumption in Sub-Saharan Africa is low. Egg consumption in East Africa ranges from around 0.4 to 1.3 kg/capita against a world average of ~9 kg/capita<sup>13</sup>. Poultry consumption in each of Tanzania, Kenya and Uganda is only 5% of South Africa’s.

### How we’re enabling the sector: Introducing dual-purpose poultry and improved feed

Smallholder chickens constitute the majority of Sub-Saharan Africa’s poultry production. However, most of these chickens are local breeds which are unproductive in both egg and meat production. They are typically fed low quality feed, hampering growth and productivity.

Our operations distribute dual-purpose chickens which are considerably more productive than local breeds. Our two operations, located in six countries, increase access to poultry products including highly productive poultry breeds, improved feed and table eggs.

<sup>10</sup>WFP (2020)

<sup>11</sup>Global Nutrition Report (2020)

<sup>12</sup>FAO (2015)

<sup>13</sup>FAO (2017)

# Case Study - Silverlands Tanzania

Silverlands Tanzania is a poultry and feed business positively impacting smallholder poultry and grain farmers in East Africa

## Introduction

Silverlands Tanzania started from scratch in 2014 and is now the largest feed producer in Tanzania and the second largest producer of day-old chicks. It sold 14.6 million day-old chicks in 2022.



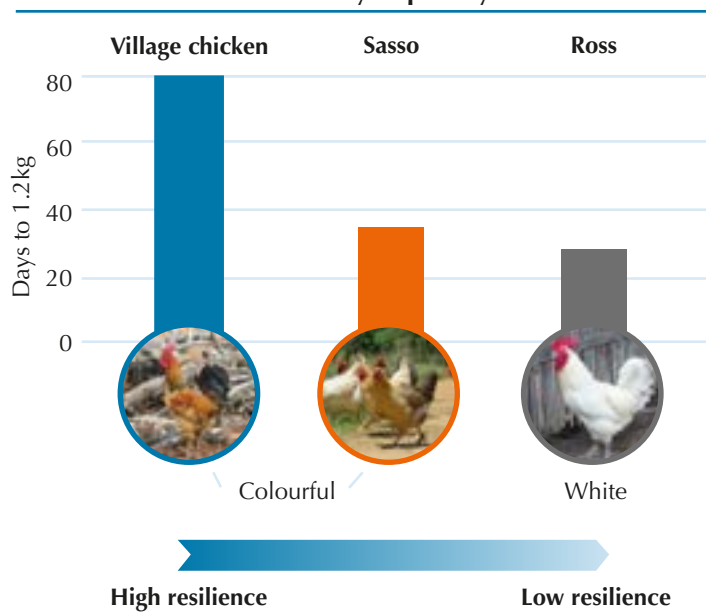
## □ What?

### Enablers for growth: Better poultry breeds

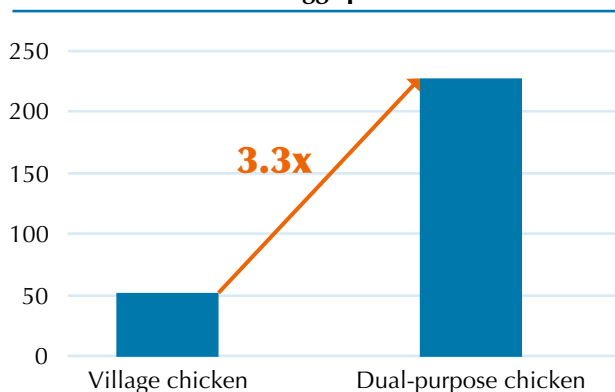
Silverlands Tanzania sells the Sasso dual-purpose, Ross broiler and Hyline layer poultry breeds. These breeds are highly productive - increasing incomes and access to food.

The Sasso breed forms the majority (72%) of sales. In addition to lowering mortality rates, converting from an indigenous to a dual-purpose poultry breed trebles the number of eggs and increases weight at maturity by 1.7x - dramatically increasing productivity for smallholder farmers and lowering costs of production<sup>14</sup>. Estimates are that farmer incomes can increase by much as 2x to 3x by growing a dual-purpose rather than traditional breed<sup>15</sup>.

Time to maturity of poultry breeds

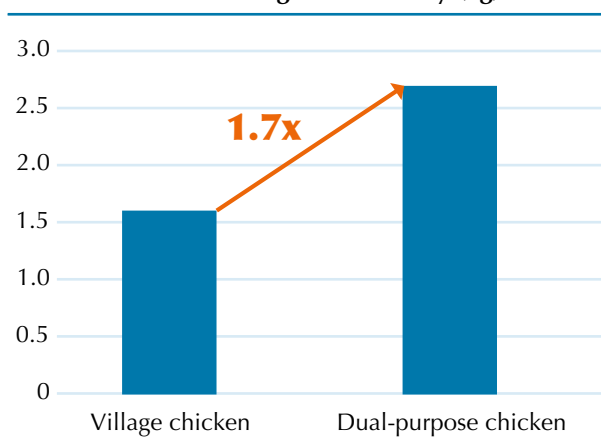


Number of eggs per annum



Source: Bill and Melinda Gates Foundation

Chicken weight at maturity (kg)



### Enablers for growth: High quality feed

Silverlands Tanzania built the first major soya processing plant in Tanzania. Construction of the processing plant enabled soya beans to be used as the protein component of poultry feed. Soya is purchased from smallholder farmers, who earn more by cultivating a higher value crop and benefit agriculturally from introducing this legume into their crop rotation. Silverlands Tanzania also built a 40 tonne/hour capacity feed-mill, the largest known feed-mill in East Africa, and 32,000 tonnes of grain storage.



<sup>14</sup>Bill and Melinda Gates Foundation (BMGF) 2020

<sup>15</sup>Bill and Melinda Gates Foundation (BMGF) 2020



Most poultry feeds available in Tanzania were poor quality and made with limited quality control measures. In contrast, Silverlands Tanzania’s feed formulations are designed by a professional international nutritionist to align with the breed standards and all feed is quality tested in an in-house laboratory. A range of feeds are produced for the varying energy and nutritional requirements of birds of different ages, breed and purpose (egg laying or broilers).

## Who?

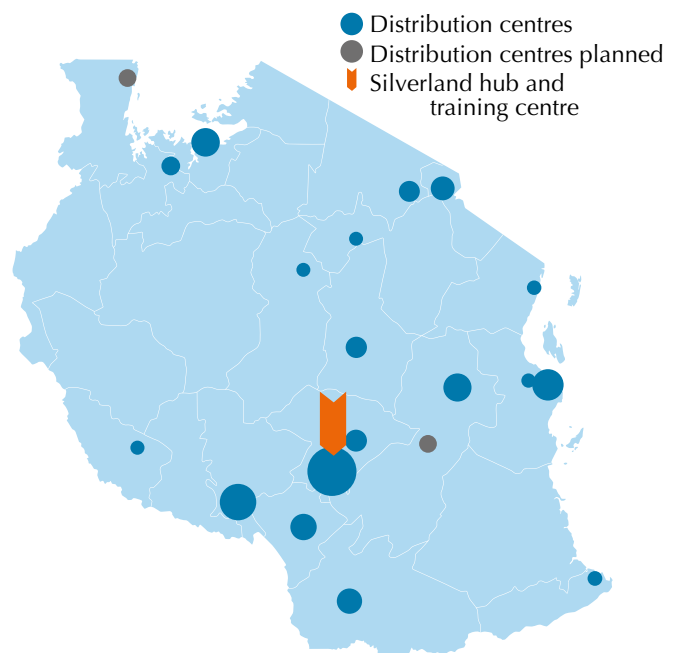
Silverlands Tanzania sells day-old chicks and its improved feed to 161,000 smallholder farmers across Tanzania and is expanding regionally in Kenya and Uganda. Some 70-80% of those farmers are women.

### 1 Smallholder poultry farmers

#### Distribution network

To reach as many smallholder poultry farmers as possible, Silverlands has built an extensive network of 19 distribution centres and sales points. Silverlands also has a team of 36 salespeople positioned across the country. They are all trained in the technical aspects of poultry production and can provide technical assistance to smallholder farmers.

#### Silverlands’ distribution centres across Tanzania



**Silverlands has built an extensive network of 19 distribution centres**



### Training centre

Silverlands established the only poultry training facility in East Africa. The Training Centre runs five-day courses that combine theory and practical work. Most smallholder farmer trainees (over 60%) attend the course on brooder unit management. Brooder (or mother) units rear day-old chicks through their first vulnerable 28 days and then sell healthy four-week-old chickens to others in their area – galvanising the poultry market and achieving a high multiplier effect. Over 2,800 people have been trained at Silverlands Training Centre.



### Benefits to women

Rearing poultry is commonly done by women and 70-80% of smallholder poultry farmers in Sub-Saharan Africa are women<sup>16</sup>. In a 2020 survey, Silverlands Tanzania found that 100% of respondents reported positive benefits from rearing poultry.

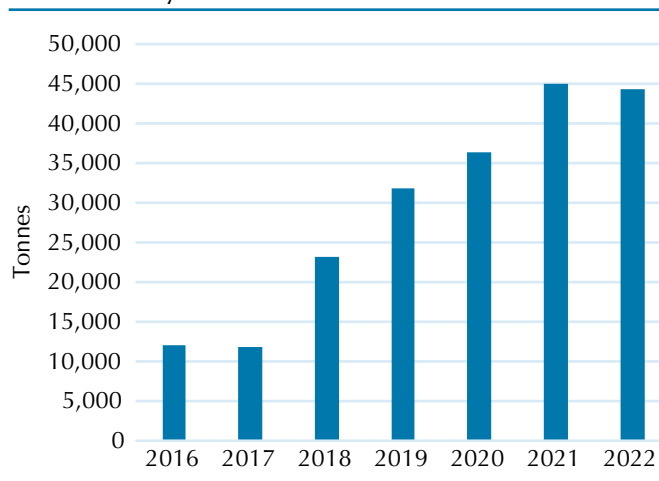
## 39% of female smallholder poultry farmers experienced greater respect since rearing poultry

### 2 Smallholder grain farmers

Growing soya, a high value crop, increases incomes for smallholder farmers as both a cash crop and naturally replenishing the soil with nitrogen, resulting in higher maize yields the following year. Soya is also an ideal rotation crop for maize because it comes from the legume family and maize is from the grass family.

Silverlands Tanzania built the first soya processing plant in Tanzania, creating a market for this crop. The annual production of soya has increased significantly since Silverlands operations began and is now sold to multiple buyers across Tanzania and neighbouring countries.

Maize and soya purchased by STL from smallholder farmers



<sup>16</sup>BMGF 2020; ID Insight, 2020



## How Much?

### How many?

- 161,000 smallholder poultry farmers economically benefit from Silverlands Tanzania's poultry or feed - 70-80% of whom are women.
- 31,000 grain farmers sell grain (maize and/or soya) to Silverlands - around two-thirds of whom are women.

### By how much?

- Incomes for smallholder poultry and grain farmers have increased by 59% (~\$295) per annum.
- This implies a total annual increase in community income of \$57 million.





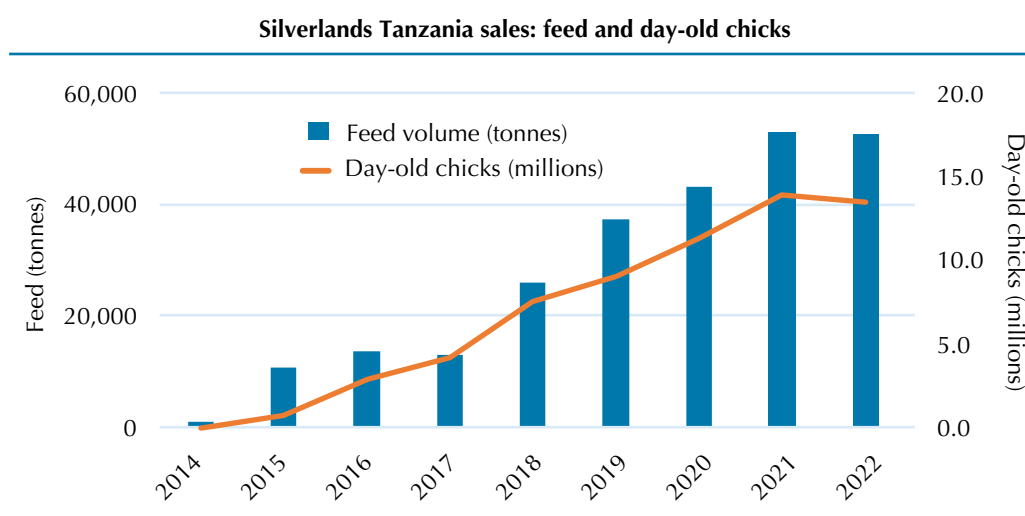
Smallholder farmer showing off one of her Sasso birds.



Sasso rainbow cockerel.

## + Contribution

**Poultry** - Prior to Silverlands, the poultry industry in Tanzania was poorly developed. Smallholder poultry farmers were forced to use inefficient poultry breeds and low-quality feeds. This results in costly poultry production, due to high mortality rates, disease, and slow maturity and production rates. The dramatic increase in Silverlands’ sales prove the market appetite for quality poultry breeds and feed.



**Grains** - Before Silverlands, there was no local market for soya because there was no soya processing plant in Tanzania. Almost no smallholder grains farmers were growing soya. By introducing soya as a rotation crop, farmers can increase their incomes, improve their soils and agricultural methods, and reduce deforestation.

## △ Risk

**Poultry - External risk: Low** - Avian flu remains a risk to Silverlands’ impact on smallholder poultry farmers. This is, in part, mitigated by the disease resilience of Silverlands’ breeds and support from extension officers – however the risk is not eliminated.

**Grains - Alignment risk: Medium** - The risk that Silverlands does not purchase soya from surrounding smallholder grains farmers is exacerbated for example because of regulatory changes in Tanzania.

# Case Study - Quantum Foods Holdings Limited

## Introduction

Quantum Foods Holdings Limited (34% stake owned by Silverlands II/III) operates in four countries, South Africa, Mozambique, Zambia and Uganda, and sells eggs, chicken and livestock feed.



## Egg production for improving nutrition

Quantum Foods is increasing access to affordable protein in the form of poultry products. These contribute to reducing stunting (growth deficiencies) in children.

An estimated 66% (720 million eggs per annum) of Quantum's egg production serves low-income consumers with food security challenges and little access to protein.

The current annual protein production of Quantum is equivalent to the annual protein requirements of 1.9m people. This includes 1.1 billion eggs that would meet the annual protein needs of over 295,000 people.



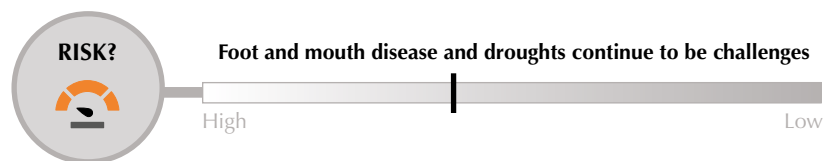
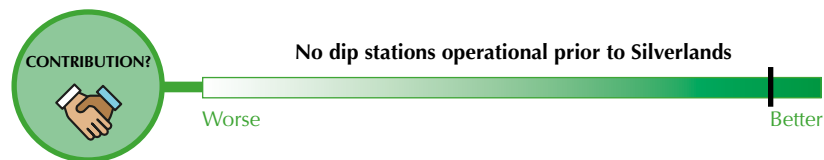
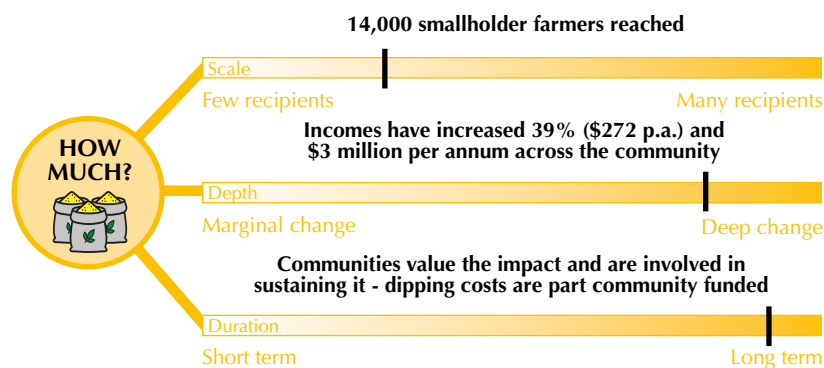
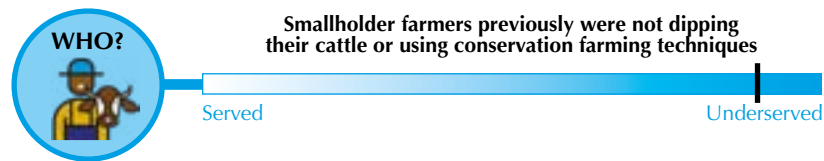
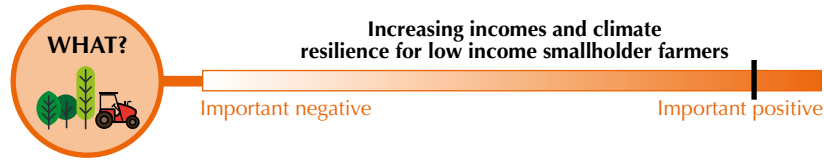
## Day-old chicks raise incomes for smallholder farmers

Quantum sold 4.4 million day-old chicks in Zambia and Uganda in 2022, to small and semi-commercial farmers. We estimate that 3,500 smallholder farmers each earned \$1,900 per annum from their poultry operations, rearing broilers and layers with day-old chicks supplied by Quantum.

# Southern Zambia

# 8

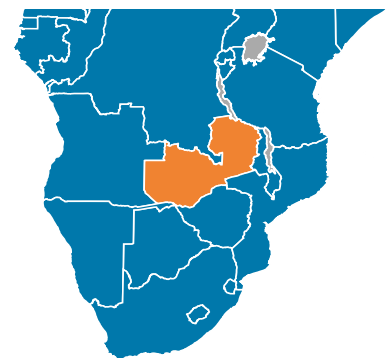
## Supporting Livelihoods in Southern Zambia



Silverlands Ranching has successfully integrated livestock and cropping solutions, such as cattle dipping and conservation agriculture training in Southern Zambia, along with providing a market, to increase incomes for smallholder farmers.

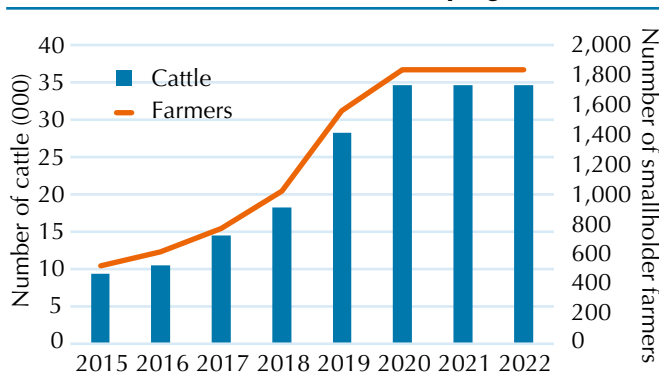


Hub-outgrower benefitting cattle and grain farmers in Southern Zambia

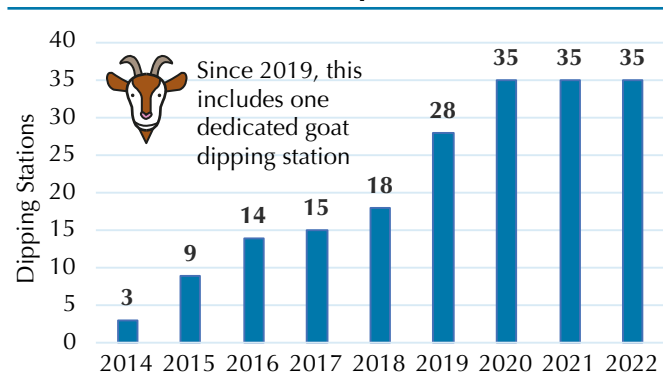


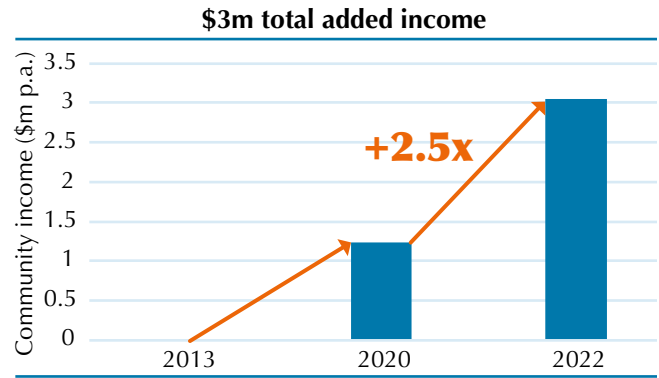
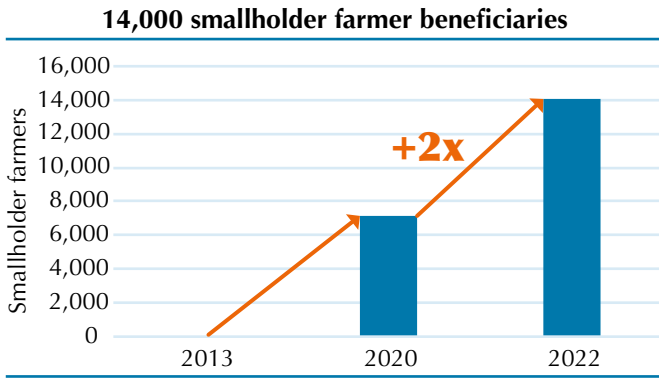
### How Much?

Farmers and cattle in the SLIC programme



Number of dip stations





### Challenges

Smallholder farmers in South-western Zambia face numerous challenges. Crop production is difficult in the semi-arid region, meaning smallholder farmers primarily depend on keeping livestock as their livelihood. Prior to Silverlands, smallholder farmers were receiving poor yields, their cattle were beset by high mortality rates and low calving numbers.

### Solutions

Silverlands Ranching is providing solutions to these challenges by linking smallholder farmers to the beef value chain; providing access to conservation farming methods; introducing smallholder farmers to drought tolerant crops and providing a market for sorghum and sunflower. Silverlands Ranching has expanded its operations and raised the incomes of smallholder farmers in the surrounding areas.

# Case Study - Silverlands Ranching

**Silverlands Ranching is a diversified farming business producing cattle, seed and pecan nut plantation that is improving smallholder farming production both in the surrounding areas and across Zambia**

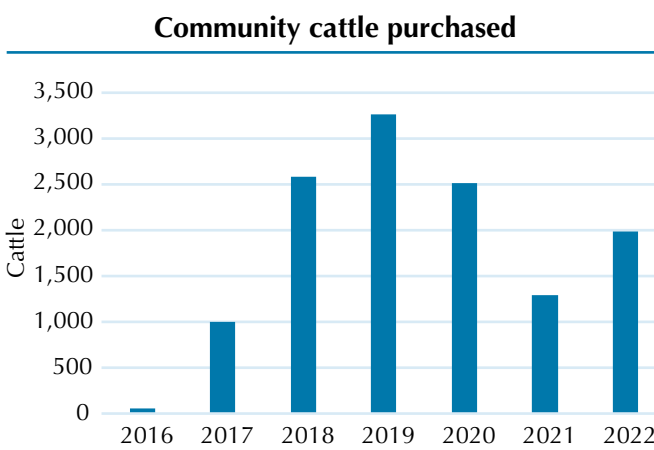
### Introduction

The business is providing smallholder farmers with assistance and a market for their produce. Silverlands benefits from a 6,000 head feedlot, 330 ha of pivot irrigation and 190 ha of pecan nut plantation (growing to 400 ha).



## □ What?

Tick-borne diseases were rife in the Zimba district. This resulted in high livestock mortality and low calving rates due to the lack of operational dip stations that help to get rid of livestock ticks monthly. Farmers had to travel long distances to sell their cattle, ~40% of cattle transactions were between community members as there was no reliable market. Cultivating crops is also challenging, due to the semi-arid climate and use of inefficient and unsustainable farming techniques.

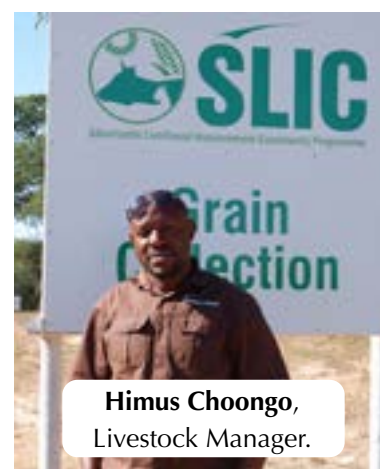


### Providing a market

To address these challenges, Silverlands developed the beef value chain by constructing a feedlot to finish smallholder farmers' cattle. Community cattle are needed to fully stock the feedlot. From purchasing just 53 cattle in 2016, the business has purchased over 12,600 head of community cattle in the last six years. Purchasing was hampered by the impact of COVID-19 and disease impacts between 2020 and 2022.

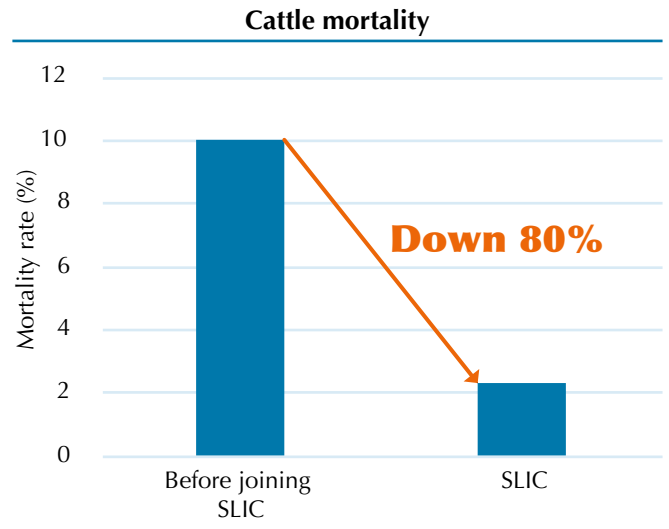
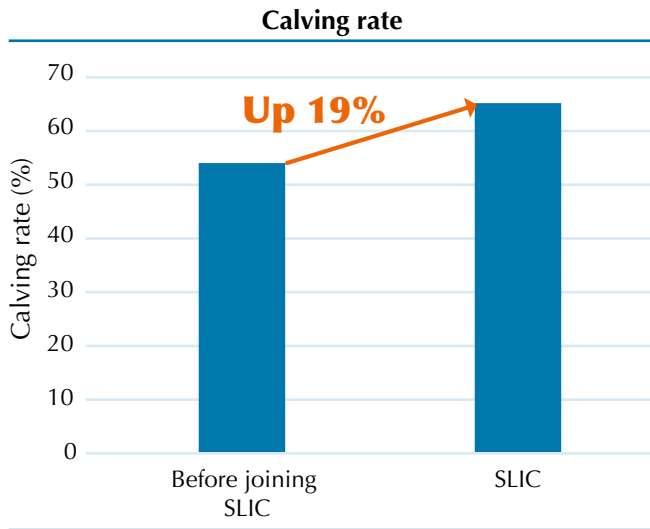
Additionally, the business purchases smallholder crops that are processed into cattle feed for the feedlot or channelled to other markets. This market provides valuable income for communities in the area.

To support smallholders to efficiently keep their cattle and cultivate crops, Silverlands created the Silverlands Livelihoods Improvement Community (SLIC). SLIC has established dip stations, crop demonstration plots and sheds for distribution of inputs and storage of grains throughout communities surrounding Silverlands Ranching.



### Dip stations

By dipping cattle, smallholder farmers substantially reduce the prevalence of tick-borne disease in cattle. Since SLIC was introduced, mortality rates for farmers have reduced from 10% p.a. to 2.3%, creating a substantial benefit for farmers. Calving rates in smallholder herds has also improved from 54% before joining SLIC to an average of 65% between 2016 and 2019. This implies approximately 20% more calves in the community herd. Calving rates have risen because cattle are healthier as a result of the dipping. More calves mean a greater income for farmers.



### Cropping training

Silverlands Ranching trains smallholder grain farmers in conservation agriculture and drought resistant crops, training includes:

- Climate smart and conservation farming methods, such as minimum tillage, land preparation, and using compost or manure.
- Cultivating drought tolerant crops. The primary crop in the area has traditionally been maize, however white maize performs poorly under drought conditions. SLIC has been introducing farmers to drought-tolerant crops such as sunflower and sorghum. This enables families to spread their risk across crops and benefit from the assorted nutrition that they provide.



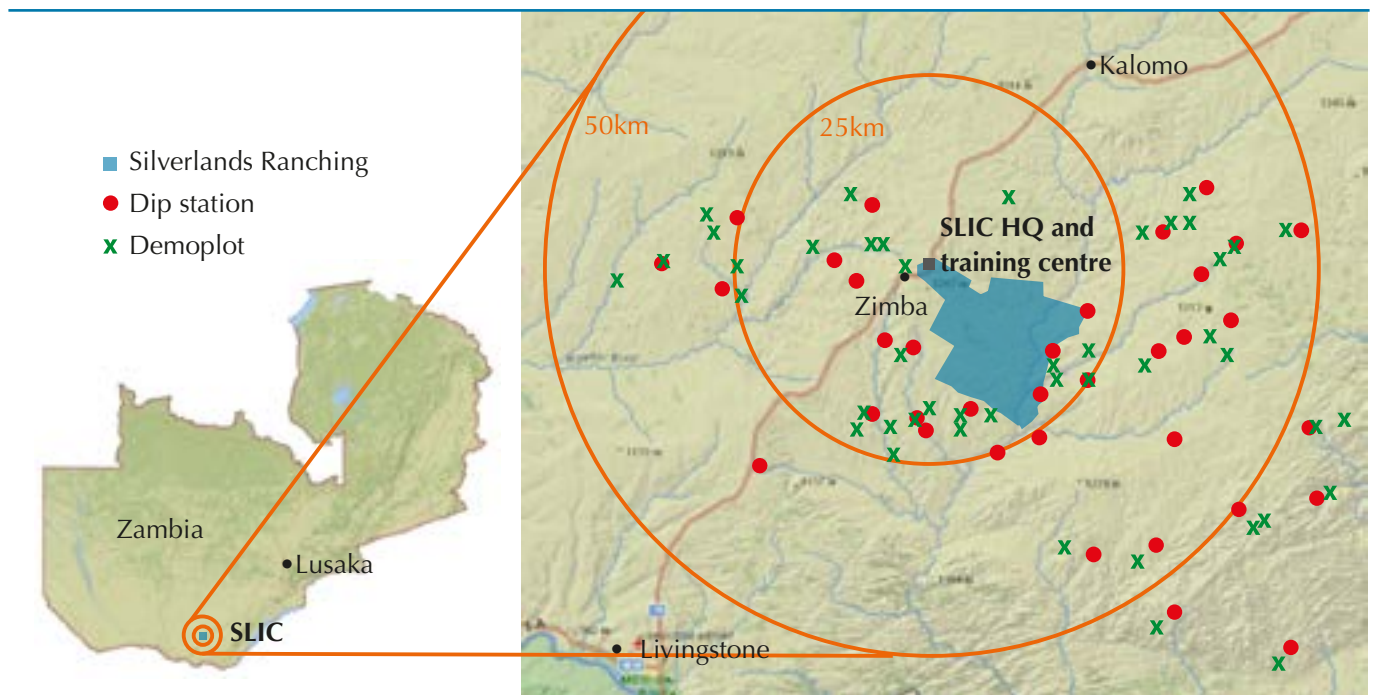


## Who?

### Smallholder cattle farmers

From zero functioning dip stations or spray races in the area, SLIC has now re-opened or constructed 35 since 2014. Spread across a 50km<sup>2</sup> area, the dip stations are positively impacting 1,800 smallholder farmers who bring their 35,000 cattle each month for dipping. The dips are managed by a community committee: tracking attendance, collecting fees, providing water and maintaining infrastructure. Dipping fees (ZMK 2 or \$0.11/head) fund the daily expenses of the programme so the dip stations are self-financing with all fee collection managed by the community itself. Silverlands provides technical expertise and advice via nine extension officers.

### Training and dip stations in neighbouring communities



#### Working with women - SLIC's Siandwazi goat dipping station

As cattle are traditionally owned by men, Silverlands opened the area's first goat dip station. The station has been running since 2019 and is managed by an all-female committee. About 2,000 goats are brought for weekly dipping by 77 farmers (most of whom are women).

### Smallholder cropping farmers

SLIC provides training in climate smart agricultural techniques. A network of 63 lead farmers have been trained to manage demonstration plots and provide training. Training of extension officers in the Foundations for Farming method commenced in 2022, as described in Section 5 of this report.

Silverlands promotes crops well adapted to growing in drier climates, such as sunflowers and sorghum. Silverlands has provided a market for more than 4,500 tonnes of sorghum and sunflower seed or cake over the last six years. It is estimated this has been grown by some 1,300 farmers.

## How Much?

### Smallholder cattle farmers

- The number of farmers dipping cattle increased and is now stable with more than 1,800 farmers dip their 35,000 cattle at 35 dip stations.
- This has more than doubled each farmer's annual income - an increase of an estimated \$863 per annum.
- Over 1,900 smallholder farmers sold their cattle to Silverlands in 2022. Silverlands has purchased over 12,600 cattle for a total of \$3 million from surrounding communities since inception.



### Smallholder grains farmers

- Over 1,900 smallholder farmers continue to receive training in conservation farming methods through Silverlands.
- The business purchased more than 1,000 tonnes of grain from smallholder farmers in 2022, enabling the communities surrounding the business to increase their total annual income by \$130,000.

## + Contribution

Prior to Silverlands' arrival, cattle disease was rife in the region. Diseases resulted in high livestock mortality and low calving rates. Farmers travelled long distances to markets or were subject to unfair traders. There were no operational dip stations and farmers.

Cropping farmers had little access to training and drought tolerant crops, resulting in more exposure to the negative effects of drought.

## △ Risk

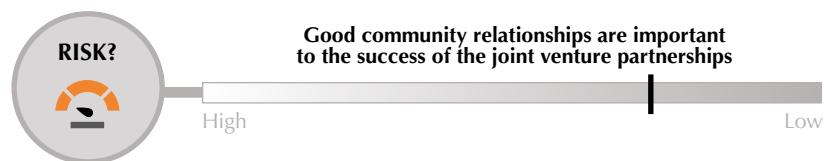
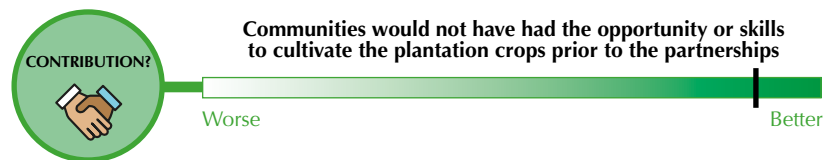
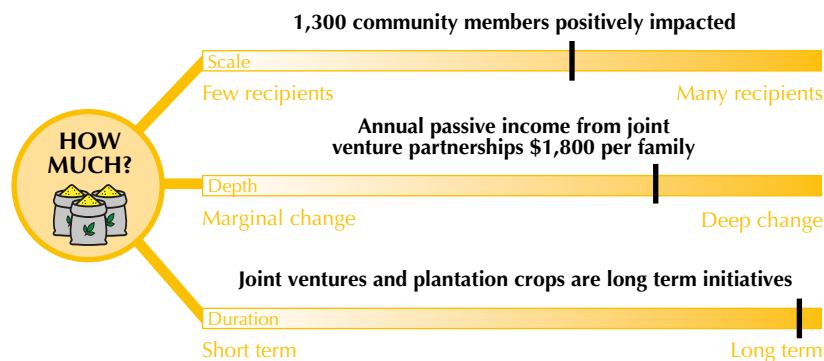
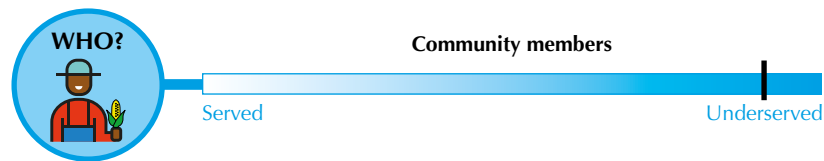
**Smallholder cattle farmers - External risk: High** - Cattle disease and droughts have negatively impacted smallholder cattle farmers since 2020. Cattle diseases such as foot and mouth prevent cattle from being moved, forcing Silverlands to reduce purchases from smallholder farmers. Additionally, droughts in 2018 limited the available pasture that smallholder cattle can graze on, reducing their productivity.

**Smallholder grains farmers - Drop off risk: Low** - Farmers see the value in conservation farming methods and access to markets and are likely to continue in the practices.

# 9

# Plantation Crops

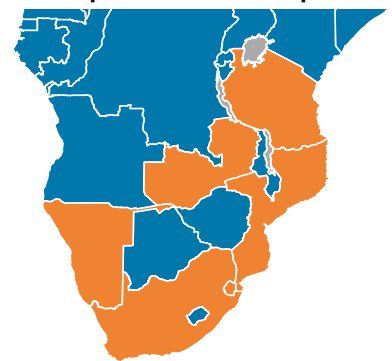
## Creating a Positive Impact with Plantation Crops



Plantation crops support the development of new industries and create the opportunity to partner with communities.



Countries where export plantation crops have been developed



### Plantation crops

Tree crops	Area (ha)
Apples & Pears	449
Date palms	181
Macadamias	554
Pecans	190
Avocados	345
Bananas	771
<b>Total</b>	<b>2,477</b>



### Development impact of plantation crops:

We are growing plantation crops such as date palms, pecans, macadamias, apples, pears and avocados. In many cases these crops are **new to the countries** or regions. We provide the expertise and patient investment to introduce these new crops and **kickstart a new industry** in the country. This adds to **foreign export earnings** and provides **employment**. We are cultivating 2,477 ha of plantation crops across six countries.

### Avocados in Tanzania

Silverlands Ndolela has planted 345 ha of avocados (Selous farm: 145 ha, Ndolela farm: 200 ha). Avocados add a high-value export crop to the locally sold seed that the farms already produce.



### Macadamias in Northern Mozambique

Murrimo Macadamias is a Crookes Brothers farm in Northern Mozambique. Currently with 554 ha of macadamia nut orchards, plans are in place to expand by another 330 ha. The farm is in a remote rural area, with few other commercial operations nearby. From a standing start in 2012, the farm now provides 320 permanent jobs and up to 667 jobs including seasonal workers during harvest. At full production, roughly 1,000 employees will be needed.

### The first significant pecan plantation in Zambia

Silverlands Ranching diversified from cattle and cropping by planting 190 ha of pecan orchards between 2019 and 2021. The total target development is 400 ha. These orchards have already provided new jobs. For some of these new employees, many of whom are women, it is their first formal employment. This is the first pecan plantation of any material size in Zambia and is pioneering the development of a new, high value export crop for Zambia.



### Introducing date palms in Namibia

Our portfolio companies in Namibia are introducing a novel export crop to the country (dates) and are leading development of the industry in Namibia. Whilst smaller plantations have been planted, the Silverlands Funds are developing substantial date palm farms, a processing and export business and the goal is to be the cornerstone of a significant new industry in Namibia. This new date palm industry will help to provide much needed export revenues, foreign currency and tax income for the government.

**Plantation crop joint ventures:**



Cultivating plantation crops typically requires expertise, scale, and capital investment, excluding smallholder farmers most of the time. To ensure community participation and benefit in these operations, we can use a joint venture model.

In this model, the community is empowered by the portfolio company to gain the skills needed to cultivate the crops and gain access to investment. A joint venture company is formed that leases the community’s land and pays a management fee to the Silverlands portfolio company. Profits are split between the community and the portfolio company with the community typically owning 51-55%. The community therefore earns their profit share plus land rent. Community members benefit from the skills transfer process over the 15-20 year life of the joint venture.

## Case Study - Community Joint Ventures

### □ What?

Joint ventures are a unique opportunity for communities to acquire the skills needed to cultivate the plantation crops over a long period. The multiple benefits for the communities include:

- Earning a reliable income from both profits and land rent from leasing their property to the JV.
- The ability to farm crops that require scale and are too expensive per hectare to be an option for smallholder farmers.
- Training and skills transfer via bursaries and working for the JV.
- Development of a positive sense of ownership through owning 51-55% of the JV.



### ○ Who?

Crookes Brothers participates in three joint ventures: Libcro, a partnership with the Libuyile community; Mawecro, a partnership with the Mawewe community; and Renishaw, a partnership with the Cele community which is being formalised. Crookes Brothers are exiting from the Bellcro joint venture, a partnership with ex-employees of the farm.

### ≡ How Much?

The JVs provide incomes to over 1,300 beneficiaries.

The combined average profit earned by the JVs over the last three years is \$2.3m per annum, or \$1,800 per family. This passive income is in addition to other household income from jobs or from managing their own businesses/farms.

Community beneficiaries (# people)	Income per family (3-year average)	Value added to community annually (3-year average)
1,314	\$1,800 p.a.	\$2.3 million p.a.

## + Contribution

Communities would not have the opportunity to generate the potential income from their land without the portfolio company as a partner. Growing plantation crops requires large scale investment and skills. These skills must be acquired over time and with experience.



**Mawewe Chief: Nkosi Khulile Mkhathwa** (left) with her mother and daughter.

## △ Risk

**Stakeholder participation risk - Medium:** The relationship between the community and the portfolio company is integral to the success of the project. Maintaining good relationships with communities is a focus to ensure regular stakeholder engagement is maintained.

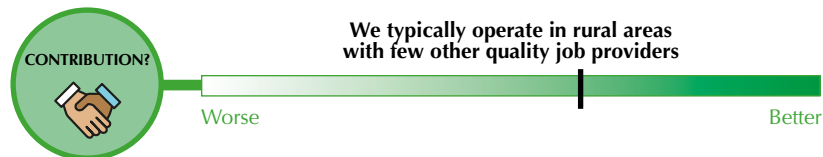
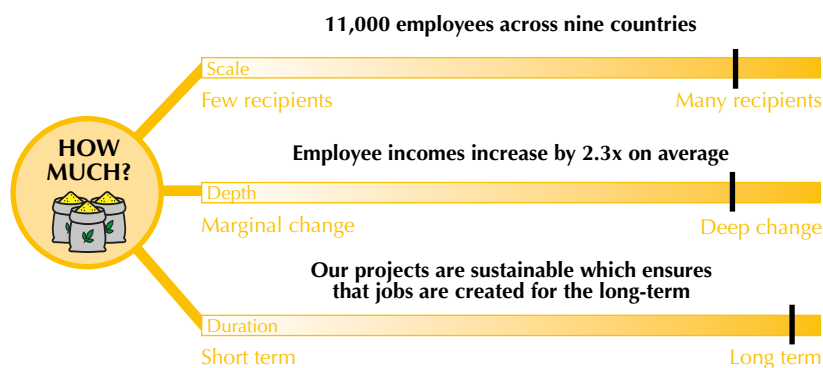
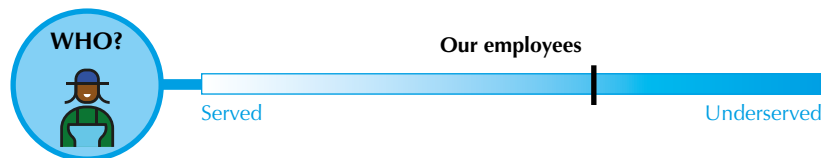


**Libcro Joint Venture** - The Libuyile community have maintained a long-term partnership with Crookes Brothers in a joint venture formed in 2008. Crookes Brothers assisted in improving the yields on this 1,100 ha sugar cane operation, from as low as 60 t/ha to a consistent 100 t/ha. Evidence that the community trusts the partnership and appreciates the professionally run operation is the extension of the JV, initially planned for 15 years, by another 15 years, together with the addition of 300 ha of land into the JV in 2016.

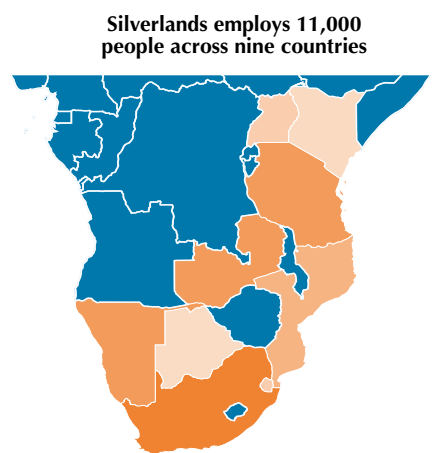
# Quality Jobs

Creating a Positive Impact through Creating Quality Jobs

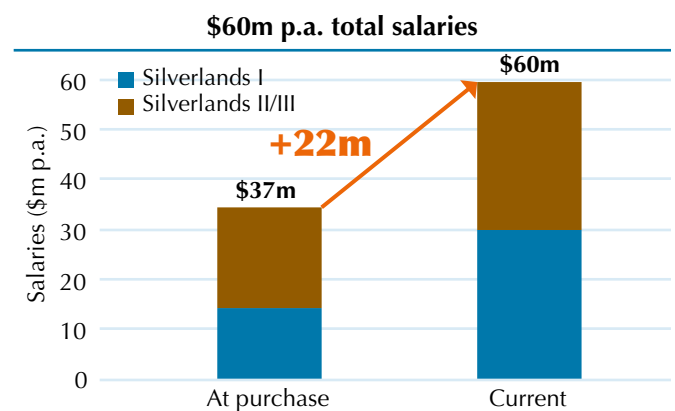
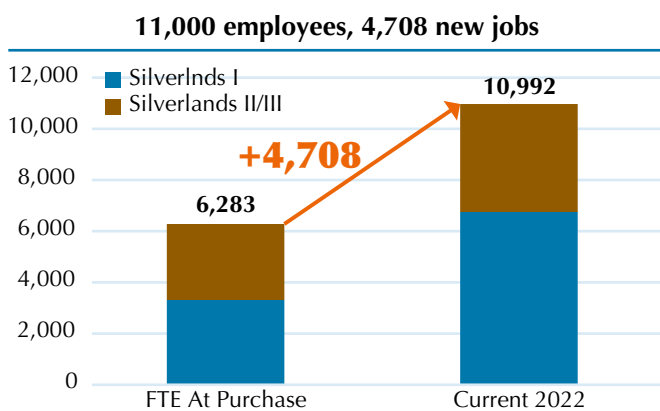
# 10



Supporting the creation of quality jobs is an integral aspect to Silverlands' positive impact. By expanding businesses we increase the number of jobs and upskill the workforce.



## How Much?



Increasing access to quality employment is a key aspect of Silverlands’ impact and objective. By fixing agricultural value chains and supporting businesses to implement the highest ESG standards, quality jobs can be created, having a direct and secondary impact in the areas we operate. Our Quality Jobs Framework defines our core principles and guides our approach:

	1 Creating more jobs	2 Creating better jobs	3 Creating inclusive jobs	4 Monitoring performance
Core principle	SilverStreet invests to fix value chains and expand businesses in developing economies with a focus on increasing the number of quality jobs in rural areas which typically experience higher rates of unemployment and exploitative work.	SilverStreet ensures portfolio companies adhere to the highest ESG standards and provide training to employees through long-term initiatives and ongoing upskilling opportunities.	SilverStreet ensures that all its investments adhere to non-discrimination policies and fair recruitment practices and support the facilitation of diversity initiatives to address employment inequity.	SilverStreet supports and ensures that portfolio companies monitor job quality monthly and audits portfolio companies annually, independently, against SilverStreet’s ESG standards.



## Creating More Jobs

Since our investments, the number of jobs provided by our operations has materially increased by a total of 4,700.

The Silverlands Funds now employ 11,000 people, a 75% increase from the number employed when the businesses were initially purchased (~6,300).

### The employment multiplier effect

This employment creates a substantial multiplier effect, benefitting some 64,000 people.

Employing 11,000 people has two main multiplier effects, (1) indirect and induced jobs created as a function of each permanent job we create and (2) the number of household members positively impacted by our employees.

	Job creation effect: Direct, indirect, induced jobs (3x permanent jobs)*	Household persons impacted (4.4x total employment)**	Total persons impacted
Silverlands I	7,072	29,651	36,722
Silverlands II/III	8,595	18,714	27,309
<b>Total</b>	<b>15,667</b>	<b>48,364</b>	<b>64,031</b>

\*IFC jobs study suggests a 3x multiplier for the agricultural sector in Tanzania  
 \*\*Average family size from UN 2018 data for Zambia, Tanzania, Mozambique, South Africa, Namibia and eSwatini/Swaziland ([www.population.un.org](http://www.population.un.org))

\*All employee numbers are now full-time equivalent (FTE) figures, updated from previous years.



# Creating Better Jobs

## Skills development

Many of our portfolio companies operate in remote areas where there is a shortage of skills. Our operations utilise new and innovative methods, technologies and products that may be novel to the area. To raise the skills within the workforce, our operations provide constant on-the-ground training, expanding the pool of skills and developing experienced employees.

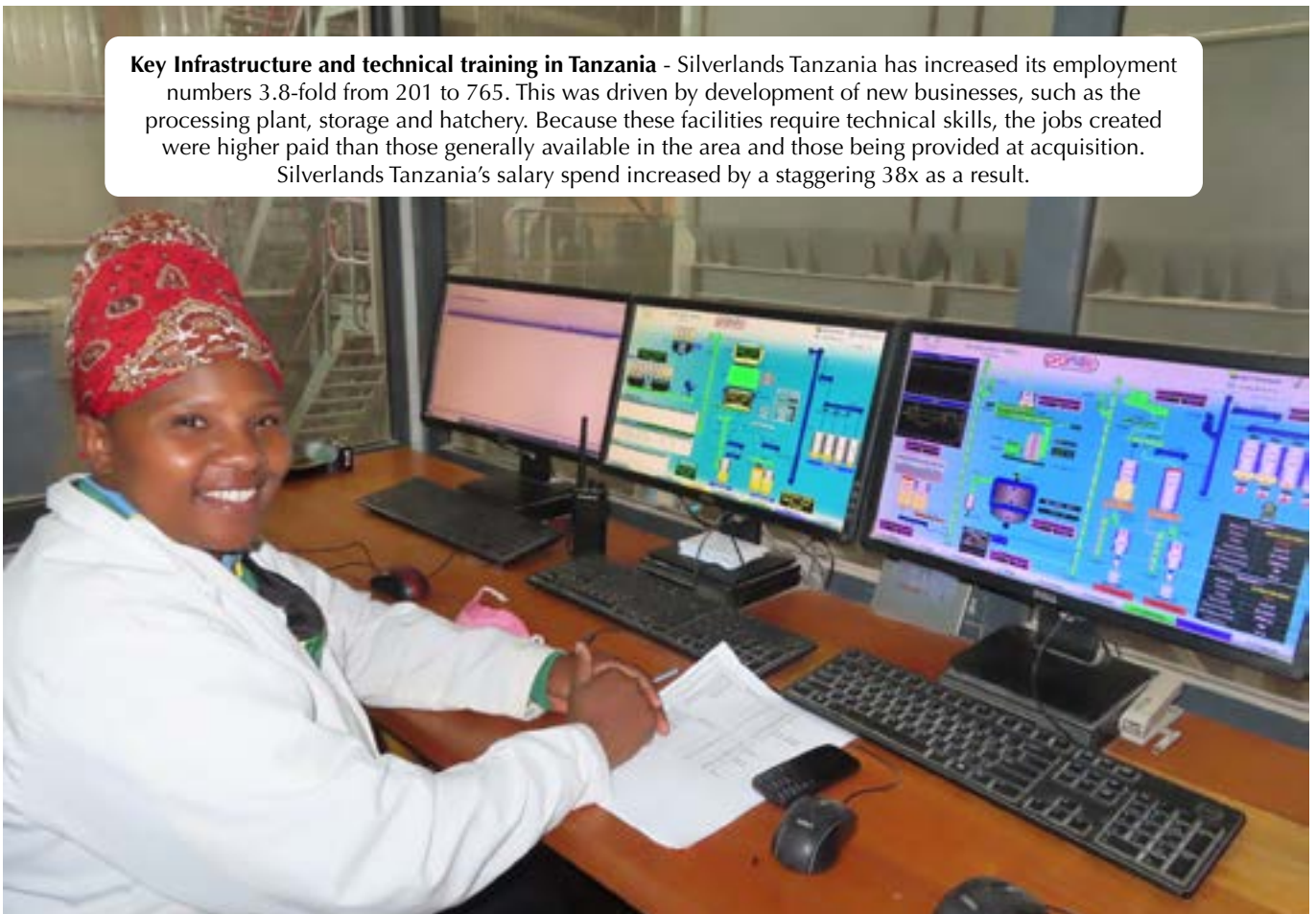
Training includes safety, machine operation, finance, IT systems, governance and general agriculture. More complicated and specialised operations require specialised training (e.g. cultivating novel crops, seed breeding, poultry feed production, and operating feed mills, hatcheries, and solar and hydro power stations).

## Higher salaries

By upskilling the workforce, and creating new skilled jobs with a higher salary, we put more money into local economies. Average salaries have increased 2.3-fold since purchase. The payroll is now \$60m per annum across the Silverlands Funds.



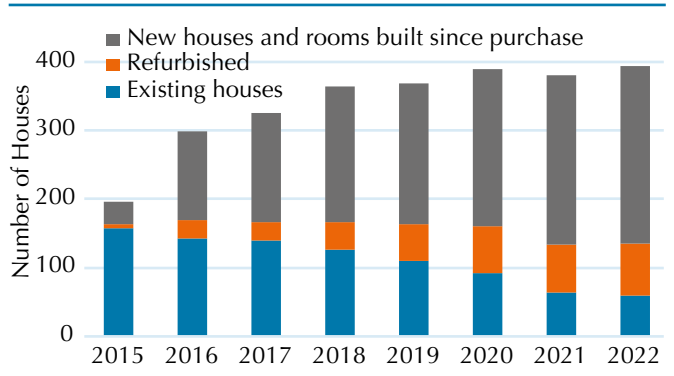
**Key Infrastructure and technical training in Tanzania** - Silverlands Tanzania has increased its employment numbers 3.8-fold from 201 to 765. This was driven by development of new businesses, such as the processing plant, storage and hatchery. Because these facilities require technical skills, the jobs created were higher paid than those generally available in the area and those being provided at acquisition. Silverlands Tanzania's salary spend increased by a staggering 38x as a result.



### Improving employee housing

Employees' happiness, wellbeing and productivity is better when they live in good housing in a pleasant environment. Housing has been a priority focus for business development. Across seven operations in Tanzania, Zambia and Namibia, 335 houses have been refurbished or built over the last six years.

Number of employee houses on Silverlands Farms



New employee housing built by Silverlands Zambia.



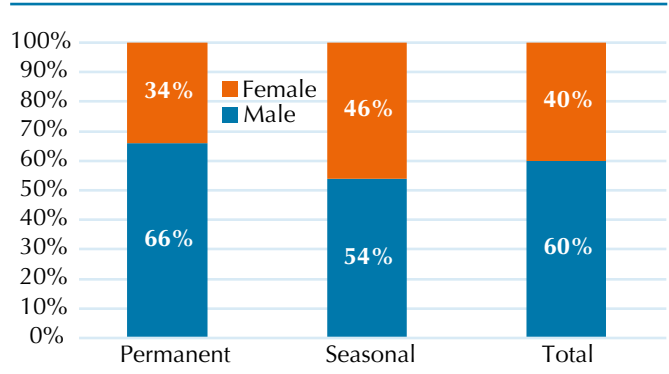
Silverlands Zambia built and runs a school for employee's children.

# Creating More Inclusive Jobs

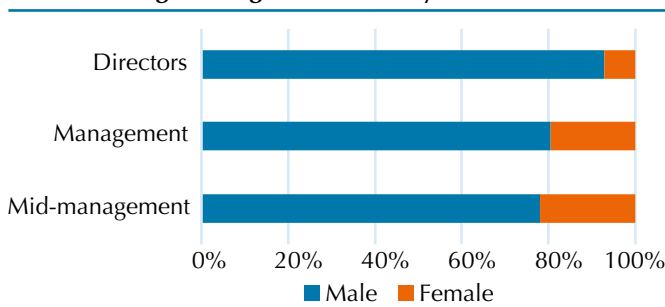
## Diversity: Gender workforce participation

Gender equality in the workplace is essential to operating responsibly and effectively. Commercial agriculture is typically male dominated; however we employ a significant proportion of women. 40% of our total workforce are women, although there are more in the seasonal/temporary labour force (46%) than in the permanent staff (34%). Rebalancing the gender split remains an ongoing focus.

Employee genders - both funds



Management gender diversity - both funds



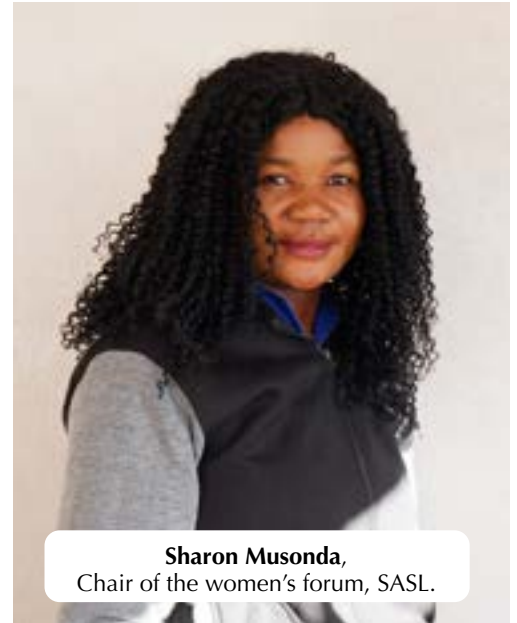
## Women in leadership

In commercial agriculture, especially in rural areas, demonstrating change through gender champions is vital to promote women's participation in the workplace. Hiring women continues to be a focus for each operation. In Silverlands I and Silverlands II/III, 7% of directors, 19% of top and senior management are women.

### Gender initiatives

Ensuring that women can fully participate in the working environment requires specific initiatives that go beyond leadership diversity. Across the Silverlands Funds, there are several gender initiatives aimed at ensuring women’s equal participation, for example:

- **Women’s forums:** These have been created in a number of our businesses. They provide a platform for women to raise and discuss issues amongst themselves that they may not feel comfortable raising with men around. Elected leaders can then communicate issues to management, empowering women at all levels within the business.
- **Creche:** At Silverlands Vineyards and Achill in Namibia, mothers were forced to prioritise childcare over employment. To enable these women to work and be comfortable that their children are properly cared for, our businesses set up a creche which has proven popular, enabling women to work knowing their children are cared for.

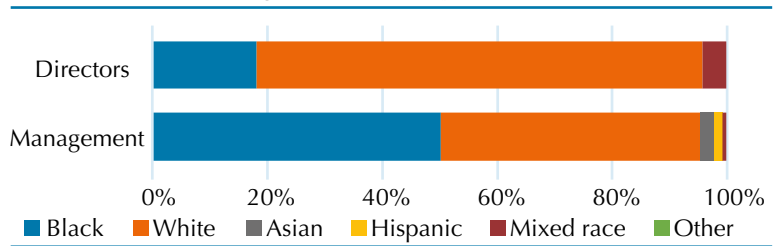


**Sharon Musonda,**  
Chair of the women’s forum, SASL.

### Diversity: Race and ethnicity

We believe that having a diverse team encourages better decision-making, governance, and innovation. We are committed to a culture and working environment that actively promotes and values diversity.

Management diversity - both funds



**Chomba Kasonde**  
General Manager, Silverlands Zambia.

**“Employees play a critical role in the success of the company and Silverlands wishes to be the employer of first choice in the farming communities where it operates in order to attract and retain employees of the highest quality.”**

Silverlands Zambia - HR Handbook

# Other Development Impact



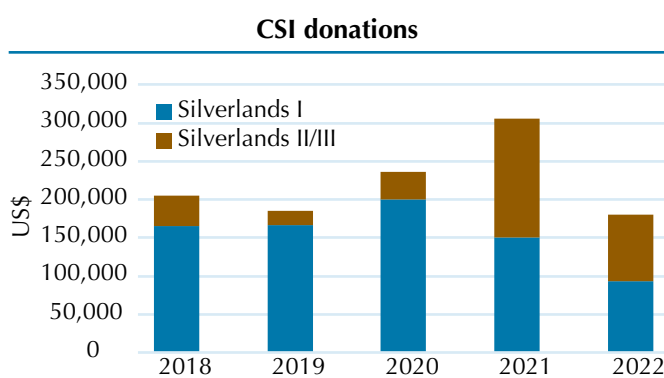
## 11.1 SME Spend

Annually, over \$52 million is paid to a wide array of small and medium enterprises through business relationships with portfolio companies. As our businesses have expanded, we have enabled these SMEs to grow as well. If each SME has ~10 employees, this implies that some 7,700 jobs are supported by our businesses.

	SMEs	Spend (\$)
Silverlands I	699	49,421,617
Silverlands II/III	71	3,200,823

## 11.2 CSI Donations

In 2022, \$181,000 of Corporate Social Investment donations were made. We estimate that this year's donations benefitted 13,200 people.



## 11.3 Tax Contributions

Most of the portfolio companies have executed major developmental programs and are still benefitting from standard tax offsets to profits.

Portfolio company	Income taxes (\$)	Other taxes (\$)*	Total taxes (\$)	Year end
<b>Silverlands I</b>				
Crookes Brothers	1,217,203	N/A	1,217,203	31-Mar-22
Silverlands Ranching	None	211,796	211,796	31-Dec-21
Silverlands Zambia	709	264,498	265,207	31-Dec-21
Silverlands Tanzania	142,706	744,824	887,530	31-Dec-21
Silverlands Agriculture Services	253	220,783	221,036	31-Dec-21
Silverlands Ndolela	16,708	239,719	256,427	31-Dec-21
Silverlands Vineyards	None	41,753	41,753	28-Feb-21
Quinta da Bela Vista	7	1,121	1,128	31-Mar-22
<b>Total Silverlands I</b>	<b>1,377,585</b>	<b>1,724,494</b>	<b>3,102,079</b>	
<b>Silverlands II/III</b>				
Achill	None	1,513,381	1,513,381	28-Feb-21
Zamseed	0	645,039	645,039	31-Mar-21
Quantum Foods	436,033	N/A	436,033	30-Sep-21
<b>Total Silverlands II/III</b>	<b>436,033</b>	<b>2,158,420</b>	<b>2,594,452</b>	
<b>Overall total</b>			<b>5,696,532</b>	

\*Taxes and all fees and proceeds paid to local and central government of host country, including customs, duties and royalties, VAT, social security payments and deferred tax over the last reported financial year.

# Managing Impact and ESG

# 12

## 12.1 The ESG Standards We Follow

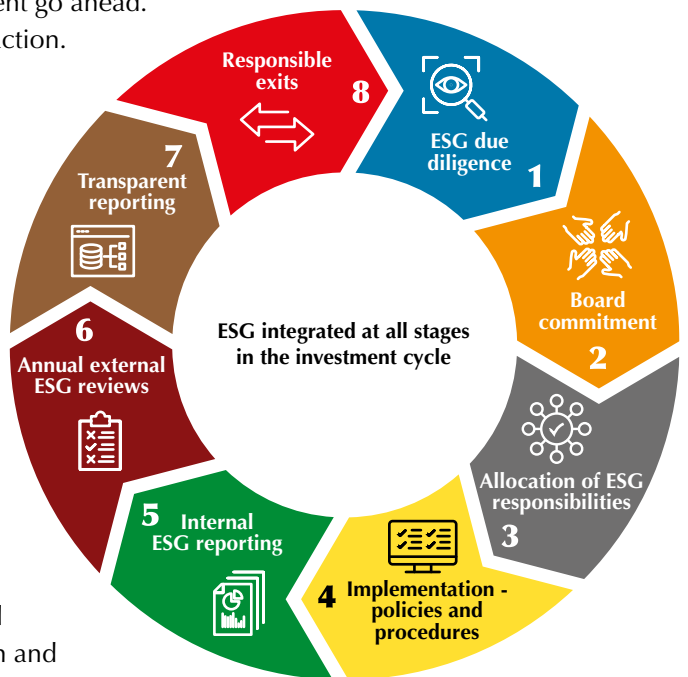
ESG standards
SilverStreet’s Responsible Investment Code
International Finance Corporation Performance Standards
UN Global Compact
Signatories
UN Principles of Responsible Investment

We adhere to our SilverStreet’s Responsible Investment Code (“**RIC**”), which is based on the responsible investment code for British International Investment PLC (BII). Our RIC references multiple other standards such as the International Finance Corporation (“**IFC**”) Performance Standards along with the IFC Environmental Health and Safety (“**EHS**”) guidelines and sector supplements. These provide excellent guidance in ESG risk management and are used globally. We also adhere to the principles of the UN Global Compact and are signatories of the UN Principles of Responsible Investment (“**UNPRI**”).

## 12.2 The Process of ESG Implementation in our Investment Cycle

ESG matters are integrated into all stages of our investment cycle, as follows:

- 1 An **ESG due diligence** is performed prior to acquisition, resulting in an initial ESG action plan for implementation should the investment go ahead. Significant issues may lead to the termination of a transaction.
- 2 **Board commitment:** After acquisition, the board of the portfolio company commits to adhere to the RIC.
- 3 **Assignment of ESG responsibilities:** Responsibility is assigned to individuals within the portfolio company to manage ESG matters. This is often split across multiple roles.
- 4 Portfolio companies implement a **Social and Environmental Management System (“SEMS”)** which includes risk assessments, policies and procedures to manage environmental and social risks (e.g. HR handbook, Transport, Fuel and Agrochemical procedures, etc.)
- 5 **Monthly internal ESG reporting** is set up and developed over time as needs arise. This ensures ongoing collection and analysis of data relating to ESG matters (e.g. employee numbers, water and electricity use, stakeholder engagement, waste management etc.)
- 6 **Annual external ESG reviews/audits** are performed by ESG specialists to guide the operation on the next steps of ESG implementation. ESG reviews result in action plans which the portfolio company then implements over the following year.



- 7 **Transparent reporting:** all ESG reports and additional updates are shared with investors via our online data sharing platform. An Annual ESG Day is held to review the annual ESG ‘audits’ with our investors’ ESG specialists. Investor ESG specialists have also visited our portfolio companies and we adopt a fully transparent ethos.
- 8 **Responsible exits:** implementing social and environmental management systems into the businesses ensures ongoing management of ESG aspects post-exit. We also ensure the ethos of potential buyers regarding ESG management is in line with ours.

### 12.3 ESG Responsibility

The implementation of our ESG standards requires a commitment from the boards and management teams of our portfolio companies. Each portfolio company has a board member with responsibility for ESG issues and ESG is an agenda item at each board meeting.



Each portfolio company has personnel responsible for ESG. These people oversee ESG matters by managing the Social and Environmental Management Systems (SEMS). SilverStreet oversees all ESG implementation across all portfolio companies. The following personnel across the portfolio companies have key ESG management and/or reporting duties:



**Julia Wakeling (SSC)**  
SilverStreet Head of Impact & ESG



**Dr. Fenton Cotterill (SSC)**  
ESG Consultant



**Luke Lowsley-Williams (SSC)**  
SilverStreet Impact & ESG Analyst



**Dr Ben Moshi (STL & SNL)**  
Board, Community Liaison



**Janet Sanders (STL & SNL)**  
ESG Manager Tanzania



**Amanda Moshi (STL)**  
Global Gap Compliance Manager



**Sheryl Bradnick (STL)**  
Poultry Training Manager



**Jacqueline Mlowe (SNL)**  
HR Assistant



**Eliud Kyando (SNL)**  
Safety, Health & Environment Officer



**George Chabaputa (SASL)**  
HR/ESG Manager Zambia



**David Kalunga (SZL)**  
HR/ESG Assistant



**Chris Simpasa (SZL & SASL)**  
Community Liaison Officer



**Francine Matanda (SRL)**  
HR/ESG Officer



**Ross Trotter (CBL)**  
Group Services Manager



**Anna-Mare Van Der Westhuizen (CBL)**  
ESG & Audit Co-ordinator



**Joel Sambo (QBV)**  
HR/ESG Assistant Manager



**Evans Chanda (SASL)**  
Safety Officer



**Fransie Hanekom (SVL & Achill)**  
ESG Manager



**Rachael Chituwo (Zamseed)**  
HR/ESG Specialist



**Boaz Chikanku (Zamseed)**  
ESG Co-ordinator



**Heather Pether (Quantum Foods)**  
Head of HR



**Andre Muller (Quantum Foods)**  
Chief Financial Officer



# Annual ESG Review

# 13

## 13.1 Overview

The Annual ESG reviews are conducted to assess compliance of each portfolio company against our ESG standards and to detail action points required. Our target was for the annual review to be independently performed every second year. The first annual ESG review was done in 2013, and in practice these reports have been done independently every year other than 2016.

These reports are detailed “audits” of each portfolio company’s ESG performance. This year we had 20 “ESG Audit” reports which were on average each 63 pages long. The reports are carefully reviewed by the management of each portfolio company and the SilverStreet team. All reports are made available to our investors via the Sungard DX system and are reviewed in an annual Impact and ESG Day.

	Silverlands I	Silverlands II/III	Total
Number of reports	17	3	20
Average pages per report	57	98	63
<b>Total pages</b>	<b>969</b>	<b>293</b>	<b>1,262</b>

## 13.2 Compliance with our Responsible Investment Code

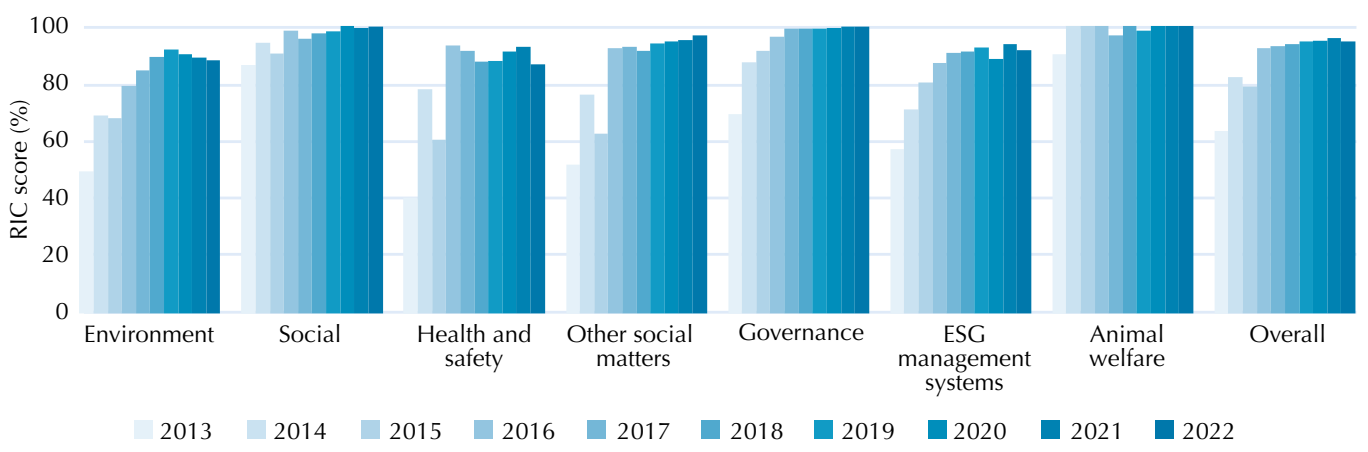
Our Responsible Investment Code is divided into seven sections. Each year in the annual ESG review, portfolio companies are scored against the various topics. The scores indicate overall performance against our ESG standards.

**a Silverlands I:** We are proud that overall compliance with our responsible investment code remains in the mid-nineties. As companies become more sophisticated in their ESG implementation, so the scoring becomes more stringent. Management of ESG aspects has the potential for continuous improvement. Therefore we do not expect companies to achieve scores much higher. The scores have risen steadily and have stabilised. Scores are detailed in the individual reports for each portfolio company.

### Silverlands I: Responsible Investment Code (RIC) compliance

Section summary	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Change
	%	%	%	%	%	%	%	%	%	%	%
Environment	49	69	68	79	84	89	92	90	89	88	-1
Social	86	94	90	98	95	97	98	100	99	100	1
Health and safety	40	78	60	93	91	87	88	91	93	87	-6
Other social matters	52	76	62	92	93	91	94	95	95	97	2
Governance	69	87	91	96	99	99	99	99	100	100	0
ESG management systems	57	71	80	87	91	91	93	89	94	91	-2
Animal welfare	90	100	100	100	97	100	98	100	100	100	0
<b>Overall</b>	<b>63</b>	<b>82</b>	<b>79</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>95</b>	<b>-1</b>

Silverlands I: RIC compliance



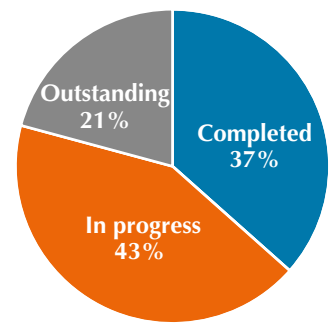
H&S scores dropped slightly due to a focus on in-depth H&S aspects by consultants with H&S expertise. We welcome fresh eyes and new insights such as this as it improves our operations. It is also a factor of the scorecard that there are fewer questions in the H&S category, so a change in score in that category results in a larger percentage change than other categories.

Portfolio companies continue to progress on action points raised in previous ESG reviews with 80% of actions either completed or in progress.

Silverlands I: Portfolio company progress against previous action plans

Portfolio company	No. of actions	Completed	In progress	Outstanding
Silverlands Tanzania	50	16	26	8
Silverlands Ndolela	28	9	12	7
Silverlands Zambia	28	10	13	5
Silverlands Agri. Services	27	9	16	2
Silverlands Ranching	38	14	19	5
Silverlands Vineyards	9	3	3	3
Quinta da Bela Vista	12	5	6	1
Crookes Brothers	106	43	32	31
<b>Total</b>	<b>298</b>	<b>109</b>	<b>127</b>	<b>62</b>
<b>%</b>		<b>37%</b>	<b>43%</b>	<b>21%</b>

Silverlands I Annual ESG review actions



**b Silverlands II/III:** Silverlands II/III has completed four acquisitions: Achill Island Investments (Pty) Limited (Achill), Karas Mountain (which has been integrated into Achill), Zambia Seed Company Limited (Zamseed) and Quantum Foods Holdings Limited (Quantum). This is the second year of assessment of Quantum, so the 2020 and previous scores relate only to Achill and Zamseed.

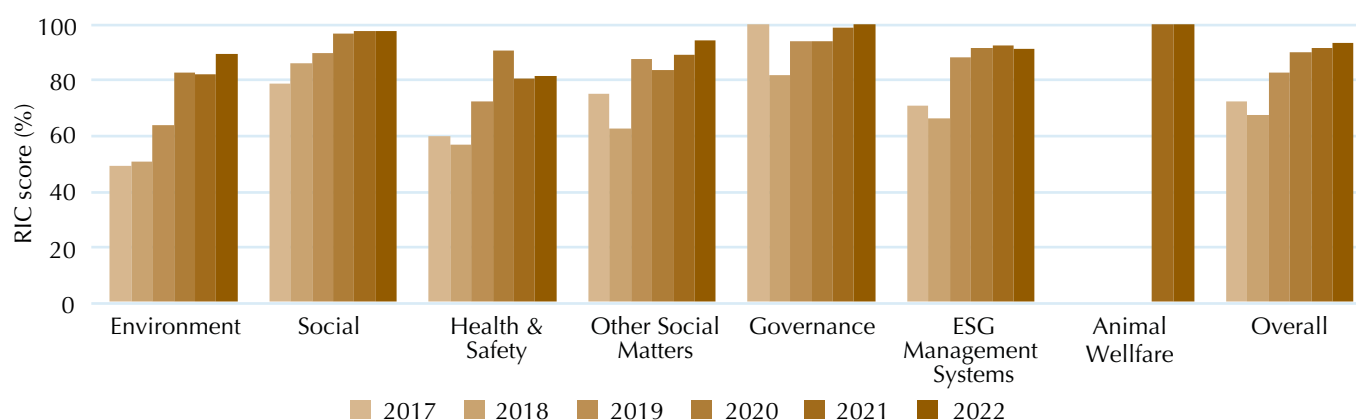
We are proud that the overall compliance has improved this year to 93% and has been above 90% for three years. Much of this increase was due to Zamseed’s significant improvement in ESG implementation and capabilities.

As a reminder, ESG compliance fell in 2018 when the Silverlands II Fund made its first investment in Zamseed and its compliance with our RIC was low at acquisition (44%), improving steadily since then, currently 95%.

**Silverlands II/III: Responsible Investment Code (RIC) compliance**

Section summary	2017 %	2018 %	2019 %	2020 %	2021 %	2022 %	Change %
Environment	49	51	64	83	82	89	7 ↑
Social	79	86	90	97	98	98	0
Health and safety	60	57	72	91	80	81	1 ↑
Other social matters	75	63	88	84	89	94	5 ↑
Governance	100	82	94	94	99	100	1 ↑
ESG management systems	71	66	88	92	92	91	-1 ↓
Animal welfare					100	100	0
<b>Overall</b>	<b>72</b>	<b>67</b>	<b>82</b>	<b>90</b>	<b>91</b>	<b>93</b>	<b>2</b>

**Silverlands II/III: RIC compliance**



Portfolio companies continue to progress on action points raised in previous ESG reviews with 81% of actions either completed or in progress.

**Silverlands II/III: Portfolio company progress against previous action plans**

Portfolio Company	No. of actions	Completed	In progress	Outstanding
Achill	16	5	7	4
Zamseed	59	40	15	4
Quantum	51	26	22	3
<b>Total</b>	<b>126</b>	<b>71</b>	<b>44</b>	<b>11</b>
<b>%</b>		<b>56%</b>	<b>35%</b>	<b>9%</b>



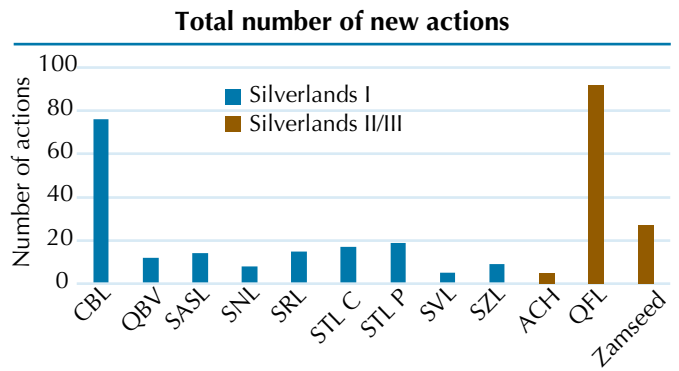
### 13.3 Summary of Key Current Actions Across the Group

The Annual ESG audit led to new actions being identified. Actions are categorised by the relevant IFC Performance Standard and are labelled by priority (High, Medium, Low). Below is a summary of new actions identified this year.

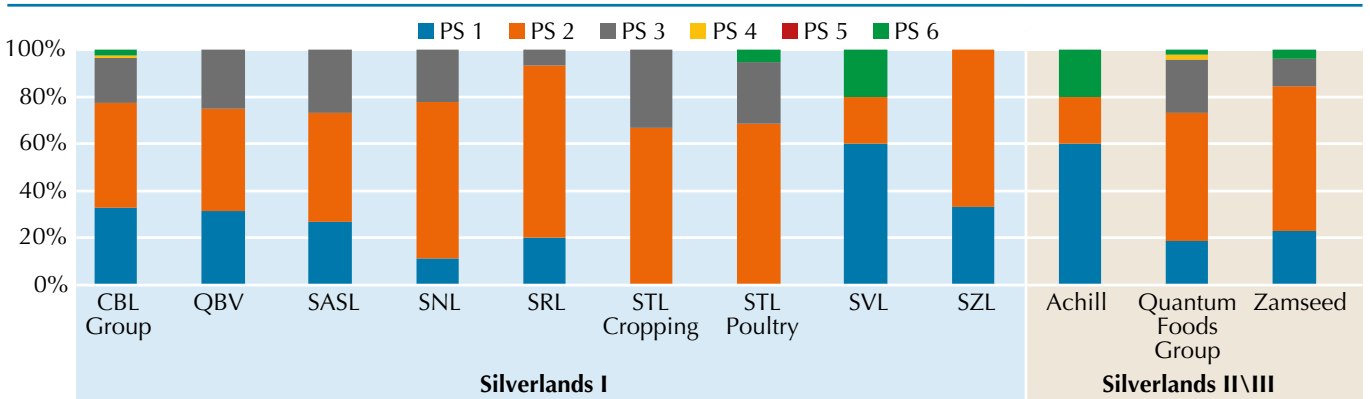
IFC Performance Standards
1 Assessment and Management of E&S Risks and Impacts
2 Labour and Working Conditions
3 Resource Efficiency and Pollution Prevention
4 Community Health, Safety and Security
5 Land Acquisition and Involuntary Resettlement
6 Biodiversity Conservation and Sustainable Management of Living Natural Re-sources
8 Cultural Heritage

Crookes Brothers and Quantum Foods each comprise multiple operations and therefore have high numbers of new actions. In addition, eight sites within Quantum’s group were visited by consultants for the first time.

SVL and Achill continue to implement ESAPs efficiently and received few new actions in 2022.



Actions by IFC Performance Standard



Most actions related to Performance Standard One (Assessment and Management of E&S Risks and Impacts), Performance Standard Two (Labour and Working Conditions) and Performance Standard Three (Resource Efficiency and Pollution Prevention). Common themes of actions relating to these Performance Standards include:

- Undertaking emergency drills;
- Developing external grievance mechanisms;
- Appointing environmental, health and safety (EHS) officers;
- Updating risk assessments and conducting internal audits;
- Updating health and safety procedures;
- Implementing risk-based medical surveillance programmes;
- Continued improvement of chemical stores;
- Management of fuel tanks, including bunding; repairs; roofing; and inspection protocols;
- Management of hazardous waste; and,
- Assessing the quality of effluent water.

Actions relating to community health and safety typically focused on used chemical container puncturing and disposal to prevent people from using containers, and pest management.

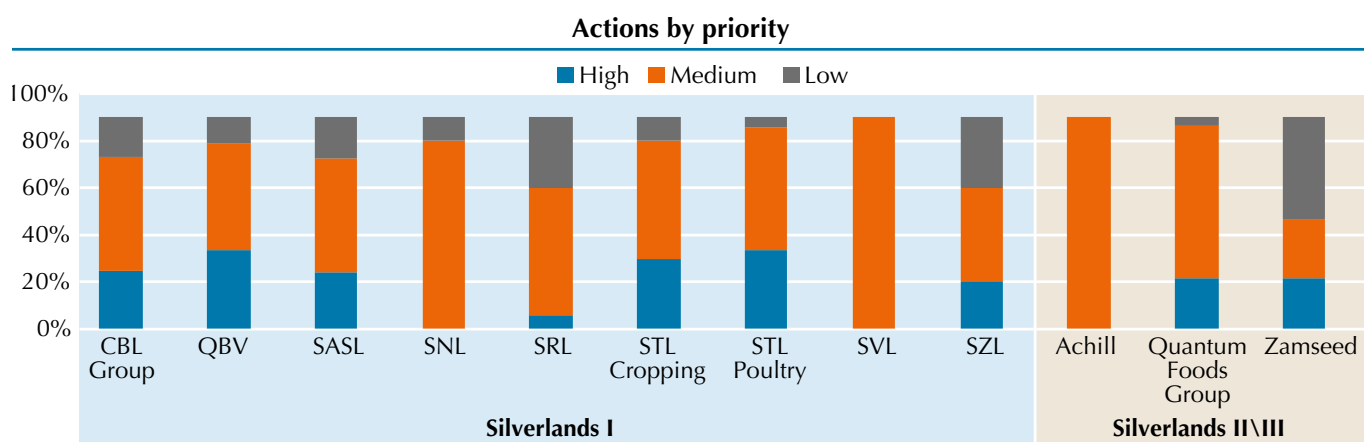
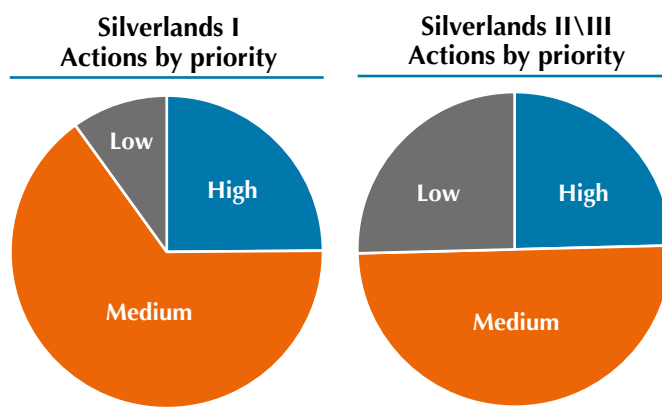
An example action relating to Performance Standard 6, biodiversity, was to include biodiversity topics during employee’s induction due to the business’ proximity to a national park.

One action related to animal welfare was identified, requesting that the business ensures correct administration of vaccines for chicks.

Most actions identified were medium priority (65% for Fund I and 50% for Fund II/III). Silverlands Ndolela, Silverlands Vineyards and Achill Island Investments received no high priority actions indicative of their positive ESAP implementation.

Actions categorised as high priority were in a variety of areas, for example:

- Improving machine guarding;
- Assessing staff transportation;
- Installing emergency showers; and,
- Improving chemical management.



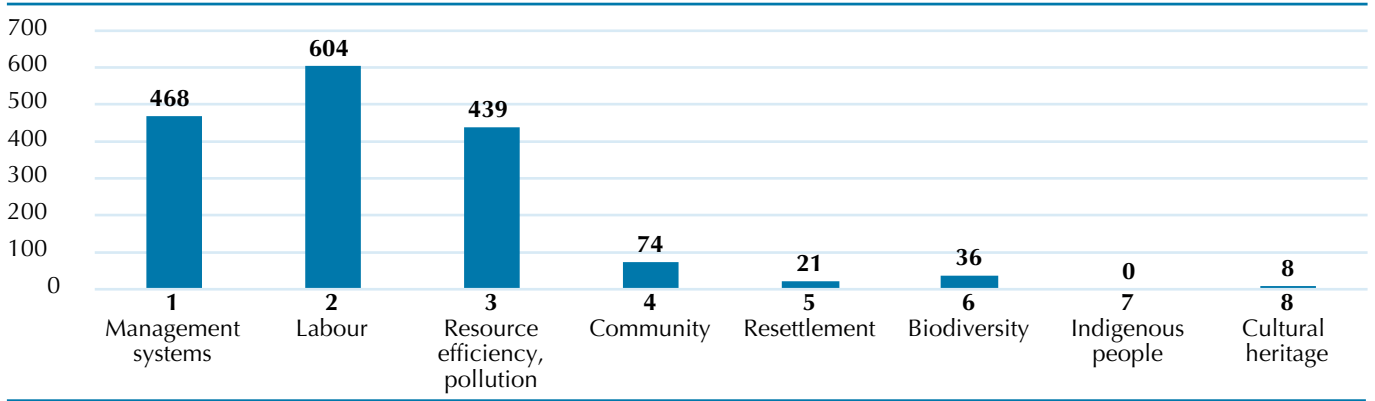
### 13.4 Review of Action Points from 10 years of ESG Audits

Integrating high ESG standards has always been a core part of the investment cycle, and since 2013, SilverStreet has been conducting ESG reviews, all bar one of which have been independent audits by ESG experts. Each audit results in an action plan, and a total of over 1,600 actions were identified across all operations between 2013 and 2021. A total of fourteen ESG experts have been the independent consultants involved in the review process since the start. We did a historic review of all of our ESG action points and this section summarises key learnings from our analysis of these actions.

#### Actions divided by IFC Performance Standard

Most actions identified across the annual ESG reviews arose from the first three IFC Performance Standards, which relate to management systems, labour and working conditions, and resource efficiency and pollution prevention.

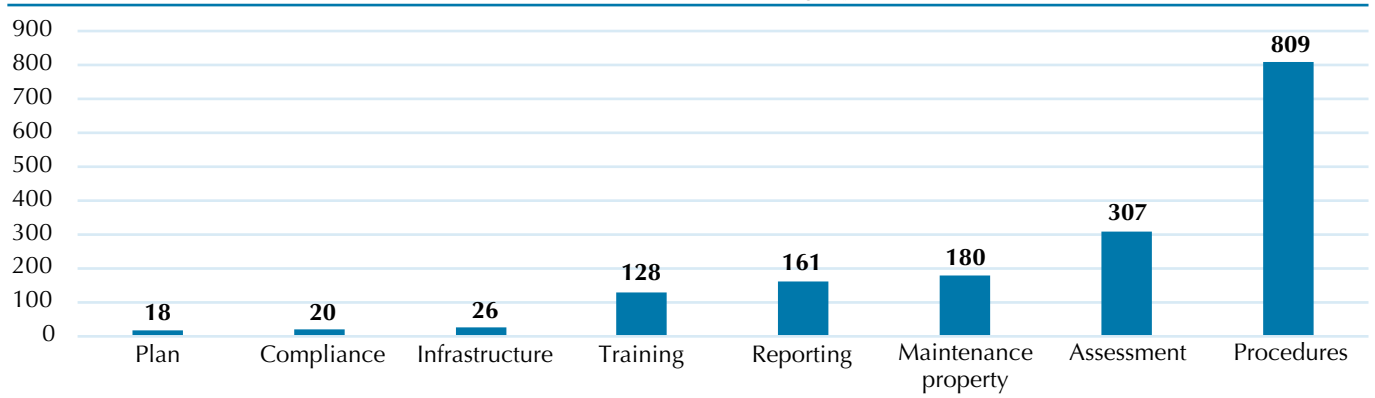
Number of actions - performance standard



**Actions Divided by Topic**

We used self-defined categorisations to help us group actions. Actions relating to drafting and implementing “procedures” were the most common. This is followed by assessments, including risk assessments and property maintenance. The focus on “procedures” is indicative of newer operations that are still getting their systems in place. This makes sense for Silverlands I that had many newly formed businesses in its portfolio.

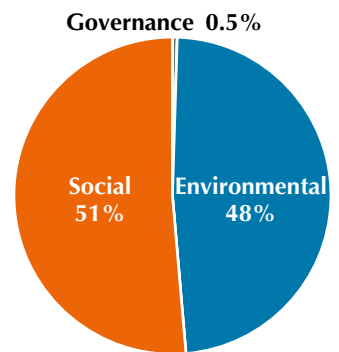
Number of actions - category



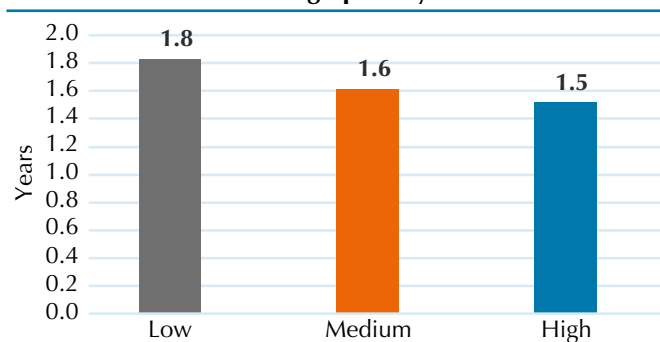
**Actions divided into “E”, “S” and “G”**

Categorising actions using the Environmental, Social and Governance (“ESG”) acronym showed that nearly all actions fell within the environmental and social categories. Here, governance refers specifically to business integrity, such as anti-bribery and corruption, ethics codes, and theft or fraud mitigations actions. A lack of actions relating to governance is partly because these aspects are well managed with many controls in place. In 2023 we are refreshing our scorecard to ensure granularity in all ESG aspects and using the new scorecard may reveal opportunities for improvement in governance aspects specifically.

Percentage of ESG actions



Average years to complete low, medium or high priority actions



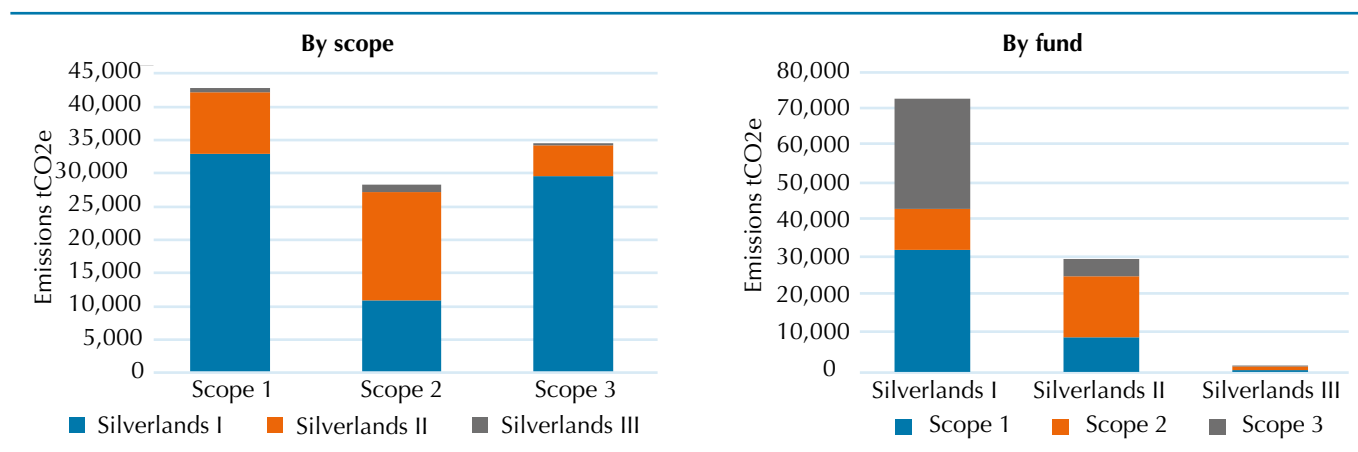
How long did portfolio companies take to implement ESG action points?

On average, actions took 1.6 years to be implemented. Allocating priority to actions influenced the time it took to complete with high priority actions taking 1.5 years to complete and low priority actions taking longer (1.8 years) to complete.

13.5 Measuring our Greenhouse Gas Emissions

We assessed the scope 1, scope 2 and material scope 3 greenhouse gas emissions for portfolio companies in Silverlands I and Silverlands II/III, using a bespoke tool developed for our portfolio. This is a critical step in reducing our emissions, and meeting the reporting requirements of the Task Force on Climate-Related Financial Disclosures (TCFD) and the Sustainable Finance Disclosure Regulations (SFDR).

Silverlands Funds GHG emissions



Silverlands Funds GHG emissions (tCO2e)

Fund	Scope 1	Scope 2	Scope 3	Total
Silverlands I	32,832	10,964	29,499	73,295
Silverlands II	9,327	16,261	4,741	30,329
Silverlands III	574	1,001	292	1,868
<b>Total</b>	<b>42,733</b>	<b>28,227</b>	<b>34,532</b>	<b>105,492</b>

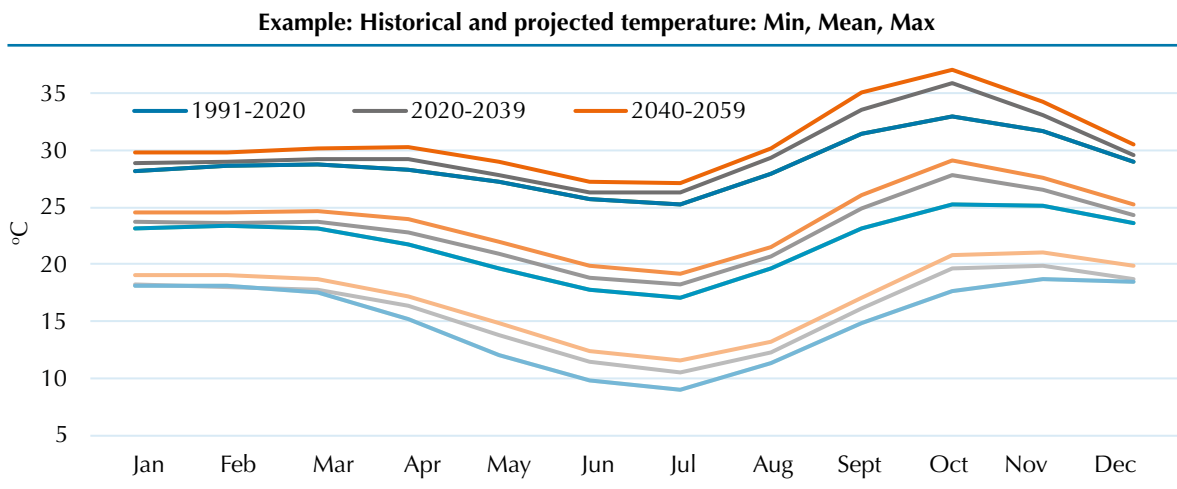
\*For Quantum Foods Holdings, operations outside of South Africa, and scope 3 emissions are excluded.

\*Emissions shown are relative to the proportion ownership of each portfolio company by the respective Silverlands Fund.

### 13.6 Designing Climate Change Mitigations through Climate Scenario Assessments



In 2022, SilverStreet’s Impact and ESG team undertook a climate scenario assessment for our controlled investments. The assessment used publicly available climate models to illustrate potential climatic changes. The results were discussed with portfolio company management, who proposed mitigations to the identified risks. A risk matrix and associated action plan were then approved by each portfolio company’s board.



Source: The World Banks’ Climate Change Knowledge Portal (CCKP)



Recently built 6,000 tonnes of silo storage space at Silverlands Agriculture Services, Zambia.



## Disclaimer

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*Murrimo Macadamias is a Crookes Brothers farm in Northern Mozambique. Currently with 554 ha of macadamia nut orchards, plans are in place to expand by another 330 ha.*





#### **2022**

Awarded ESG Sector Specialist (BII and GPCA awards)  
10 years of ESG audits of Silverlands Fund I completed  
All Silverlands funds classified as Article 9 Funds - EU SFDR.

#### **2020**

Awarded Ethical Investor of the Year for the third year in a row (Global Fund Awards)  
Awarded Emerging Markets Company of the year (Global Fund Awards).

#### **2018**

Awarded Ethical Investor of the Year (Global Fund Awards)  
Awarded Best Impact Investor, UK, and Best African Agriculture PE Fund (Wealth and Finance).

#### **2011**

Adopted Responsible Investment Code, setting out ESG objectives.

#### **2021**

First year of measuring carbon emissions (scope 1, 2 and material scope 3) of portfolio.  
Impact governance independently assessed by Phenix Capital.  
ESG and Impact Policy and Climate Change Policy adopted.

#### **2019**

Expanded impact and ESG team.  
Awarded Ethical Investor of the Year (Global Fund Awards).

#### **2015**

Appointed first dedicated impact and ESG resource.