

Illovo Sugar Africa (Pty) Ltd

Illovo Sugar (South Africa) (Pty) Ltd
(ISSA) social, economic &
environmental impact assessment

FY2020/2021

Table of contents

Introduction.....3

Summary of findings.....5

Sugar market leader6

Sustainable agriculture 15

Value and quality-driven industry20

Community connected.....30

Recommendations36

Annex 1: Methodological note37

Introduction

Illovo Sugar Africa (Pty) Ltd (Illovo Sugar Africa), a wholly owned subsidiary of Associated British Foods plc, is a Pan-African, consumer-centric agri-business with over 130 years in operation that has roots in growing and making sugar and related products, sustainably. The company is Africa's leading and diversified sugar Group with operations in Eswatini, South Africa, Mozambique, Malawi, Tanzania, Zambia and most recently, Rwanda.

The Group employs 31,000 people across its six locations, excluding Rwanda. As a significant employer, producer of sugar distributed to principally domestic markets and purchaser of agricultural raw materials, Illovo Sugar Africa can positively shape the socio-economic fabric of the economies and communities of which it is part.

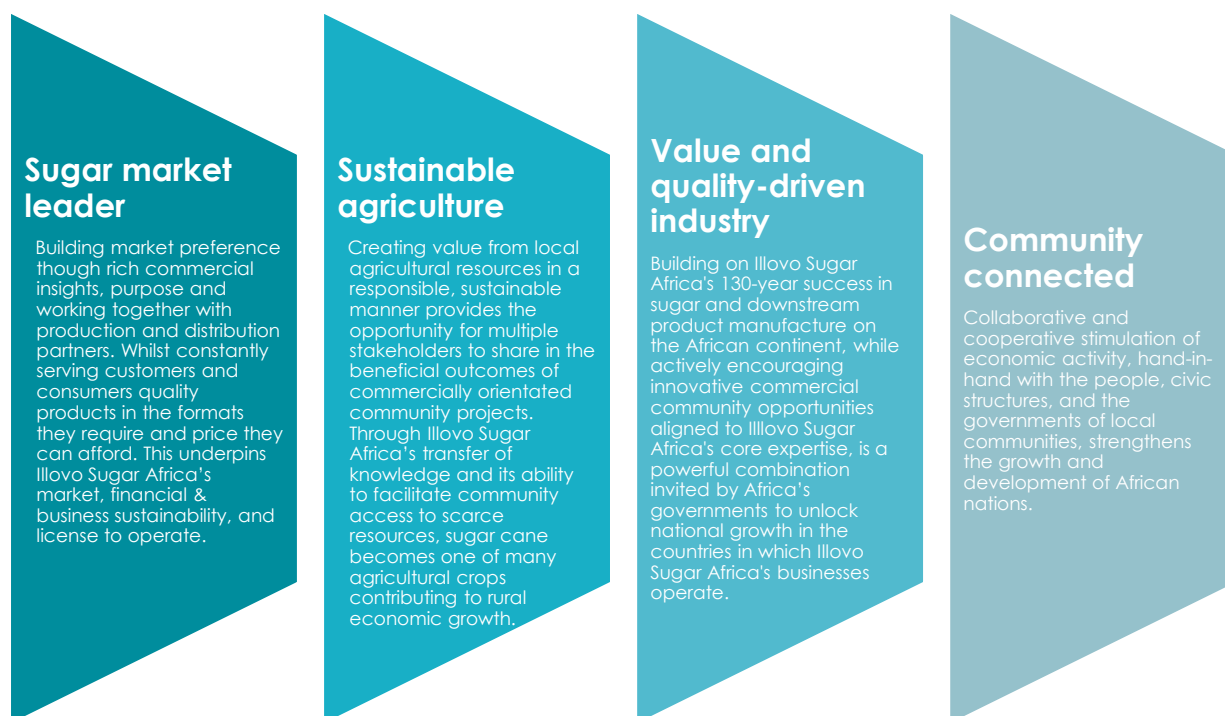
About this report

This report is an update of the socio-economic impact assessments carried out for Illovo Sugar Africa and its subsidiaries in 2013 and 2017. These reports are available on Illovo Sugar Africa's [website](#). Illovo Sugar Africa commissioned Corporate Citizenship, an independent sustainability consultancy, to undertake these assessments to form a deeper understanding of the company's impact on its communities and use the insights to enhance the value it brings and achieve its self-identified company purpose to create thriving communities.

"We recognize that a successful business on the continent is one that evolves alongside its host markets, whilst creating shared economic value in the countries where we operate and the communities surrounding our operations. This is the essence of our Illovo Sugar Africa purpose."
- [Illovo Sugar Africa](#)

Illovo Sugar Africa's purpose is entrenched through its four key pillars:

Figure 1: Illovo Sugar Africa's sustainability pillars



This report is for the 2020/21 fiscal year (FY), which for Illovo Sugar Africa and its subsidiaries runs from September 1st to August 31st. Data from FYs 2016/17, 2018/19 and 2019/20 has also been provided in some sections for trend analysis purposes. Unless otherwise indicated, all years cited in this report refer to fiscal years.

Due to its recent establishment in 2019, Illovo Sugar Kigali (ISK) in Rwanda has not been assessed in the updated impact assessments.

Expanding on previous reports that focused on Illovo Sugar (South Africa)'s socio-economic impacts, the 2022 assessment has been broadened to include additional information on Illovo Sugar Africa's direct and indirect environmental impacts. Key findings from the assessment are structured against Illovo Sugar Africa's four key pillars. Further information about this report including details on the methodology can be found in Annex I on Illovo Sugar Africa's [website](#).

Illovo Sugar Africa in South Africa

South Africa is home to Illovo Sugar Africa's group corporate offices located in Durban, as well its subsidiary, Illovo Sugar (South Africa) (Pty) Ltd (ISSA), as it is known today, which is one of the three largest sugar producers in the country³. ISSA's operations in South Africa include the cultivation of sugar cane, the production of raw, brown, refined sugar and sugar syrup, together with the downstream products of furfural and its derivatives, ethyl alcohol and lactulose. ISSA's sugar markets are largely domestic, however, downstream products are primarily export-focused.

ISSA was established in KwaZulu-Natal in 1891. Today, the company is an invested, long-term contributor to South Africa's economy, committed to partnering for the continuing transformation of its agricultural and sugar production sectors. The company sources 92% of its sugar cane from growers and annually produces more than 446,772 tonnes of raw and refined sugar from 4.4 million tonnes of sugar cane cultivated by independent growers, together with only 8% of sugar cane produced by Illovo Sugar South Africa's own agricultural operations.

Table 1: South Africa demographic data

South Africa country data ¹	
Economic indicators	
Gross domestic product (GDP) at purchasing power parity (PPP)² (2021)	\$419.95bn
GDP per capita (2021)	\$6,994.2
Annual GDP growth rate (2021)	4.9%
Labour market indicators	
Population (2021)	60.0m
Labour force (2021)	22.7m
By occupation (2019)	Agriculture 5.0% Industry 22.0% Services 72.0%
Population location (2021)	Rural 32.0% Urban 68.0%
Unemployment rate (2021)	33.6%
Poverty indicators	
Population living below \$2.15 per day (2014)	20.5%
Population living below national poverty line (2014)	55.5%
Adult literacy rate (2019)	95%
Life expectancy at birth (2020)	64 years

¹ [World Bank Open Data](#)

² [Eurostat](#) The purchasing power parity is the exchange rate that removes price level differences between countries.

³ [South African Sugar Industry Directory \(2019\), Sugar Milling and Refining](#)

Summary of findings

ISSA continues to be a significant contributor to South Africa's economy. In response to falling sugar production, the business has diversified output to meet domestic demand and has continued to grow despite external challenges such as the COVID-19 pandemic. This is supporting valuable economic and employment opportunities for many within the company's value chain and is particularly important for South Africa's rural communities. ISSA is also contributing to sustainable agricultural practices within its own operations but increasing support and development for grower communities remains a critical priority given the company's dependency on growers as climate-related risks continue to affect the sugar cane value chain.

The main findings for the fiscal year 2020/21 are summarised in the table below.

Table 2: Key quantitative impact findings by pillar

In 2020/21, ISSA's quantitative social, economic and environmental impacts in South Africa included the following:	
Sugar market leader	<ul style="list-style-type: none"> • 446,772 tonnes of sugar produced • Total economic impact estimated at R9.8Bn, including R1.29Bn direct impact (gross value added) and the remainder in indirect & induced impact through multiplier effects in the supply chain and wider economy • R31m direct tax contribution and R307m indirect tax contribution (collected on behalf of the government) • 4,528 directly employed including 1,908 permanent and 2,620 non-permanent roles. Through direct jobs only, ISSA contributes to supporting an estimated 15,124 livelihoods once families and dependents are taken into account (based on an average household size of 3.3) • Estimated total employment impact of 19,885, including direct, indirect and induced employment supported in grower communities and the wider economy
Sustainable agriculture	<ul style="list-style-type: none"> • 10,957 ha of Illovo-owned cropland, which produced 400,927 tonnes of sugar cane output (Illovo-owned) • 121,823 ha of grower cropland, working with 4,385 independent growers who supplied 4,374,252 tonnes of sugar cane (92% of ISSA's total sugar cane throughput) • 1,533 growers reached via development programmes
Value and quality-driven industry	<ul style="list-style-type: none"> • 79% of energy production from renewable sources • 161 302 MWh of renewable energy generated • 9% decrease in scope 1 & 2 emissions (2019/20 - 2020/21) • R665k invested in safety training and a Lost Time Accident Frequency rate of 0 • R5.3m invested in training, with 2,260 employees trained • R28.6m invested in employee benefits including support for healthcare, pension funds and counselling • R5.4Bn spent on procurement with 97.7% going to local suppliers
Community connected	<ul style="list-style-type: none"> • R43.3m spent on the community through education, healthcare and infrastructure projects • 2,115 COVID-19 vaccinations • 35% women in ISSA's workforce with 19% in the management level

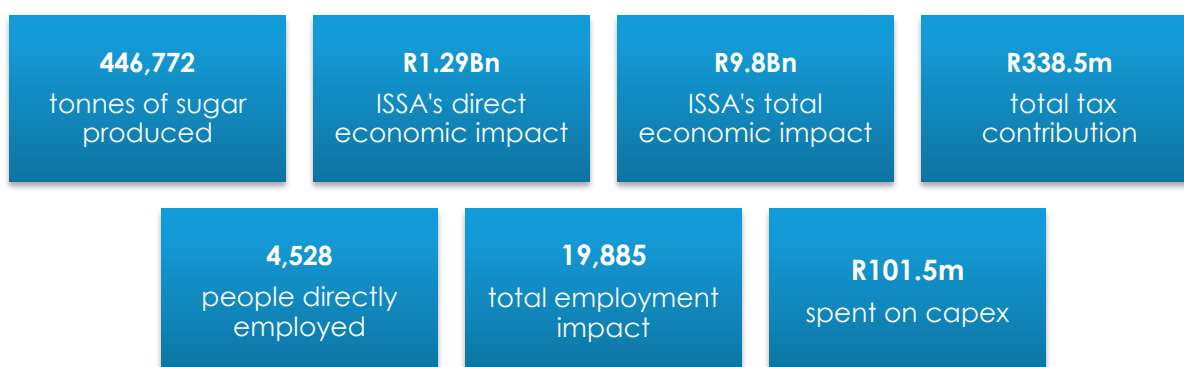
Sugar market leader

Building market preference through rich commercial insights, purpose and working together with production and distribution partners. Whilst constantly serving customers and consumers quality products in the formats they require and price they can afford. This underpins Illovo Sugar Africa's market, financial & business sustainability, and license to operate.

Key pillar findings:

ISSA is operating in a challenging market in South Africa with severe economic and climate-related pressures affecting the sugar industry. Between 2018/19 and 2020/21, ISSA has begun responding well to these challenges, seeing a greater diversification of product output. However, ISSA's direct economic impact fell by 10% from 2016/17, driven in large part to the implementation of South Africa's sugar tax in 2016/17, COVID-19 impacting 'pay as you earn' rates and the closure of one of ISSA's mills. Despite these challenges, its total economic impact rose by 2%, with an increase of 23% across its indirect economic impacts due to increased procurement spend along its value chain.

ISSA's total employment impact fell by 21% from 2017, despite the near doubling in the employment of non-permanent workers. A key pressure on its employment impact is ISSA's dependence on cane from growers, who have been facing severe challenges in growing consistently resilient cane. With droughts and floods critically impeding efforts to grow, existing growers are struggling while prospective entrants to the labour market are discouraged.



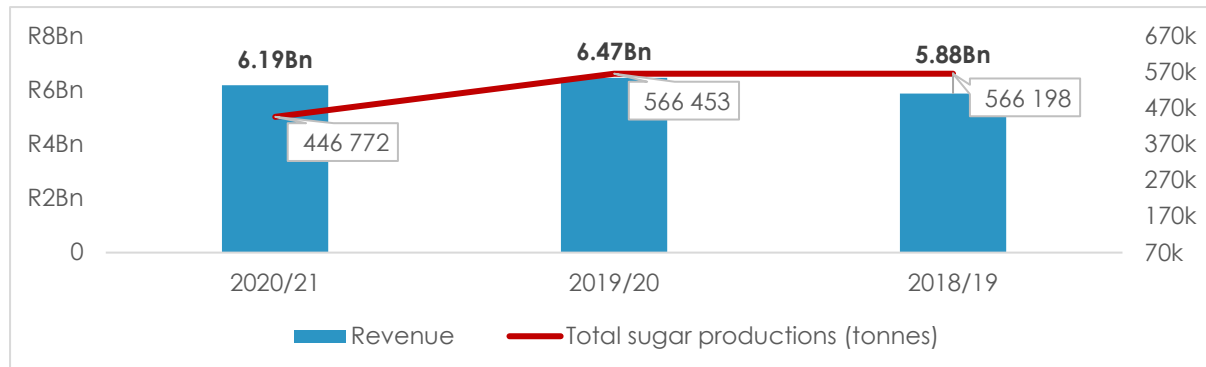
Note: Definitions for direct economic impact, indirect economic impact, induced impact, total impact, and employment impact are provided on pgs. 8-9 and 11.

Meeting demand & beyond

As the largest cane sugar producer in the country, ISSA plays an intrinsic role in meeting domestic and regional demand for sugar. Since 2016/17, ISSA's sales have increased by over R600m. In the last three years, ISSA's sales rose by 5% between 2018/19 and 2020/21, though this included a fall of R2.8m between 2019/20 and 2020/21. Despite revenues growing, the

volume of sugar produced has dropped by 21% since 2018/19, a decline of over 100,000 tonnes, meaning the current output of 447,000 tonnes is lower than the output recorded in 2016/17. This has in part been influenced by destructive shifts in weather due to climate change,⁴ alternating between droughts and severe flooding problems, with the latter affecting South African growers and their crops particularly hard in recent years.

Figure 2: ISSA sales and production volume 2018/19-2020/21



The majority of ISSA's sugar sales are domestic. In 2016/17, we reported a breakdown of 84% of sugar sales being in the domestic market, while the remaining 16% exported was split between other African markets, the EU and the rest of the world. In 2020/21, the strategic focus, however, is on distinguishing between sugar sales and downstream sales, i.e., non-sugar products, as these make up most exports.

Sales by Market: Downstream

ISSA is better able to reach other geographies through downstream products and generate better revenue through diversification. The production and sale of these products include [ethanol, syrup and furfural](#) (a renewable chemical that can be used to create a range of industrial products including furfural alcohol). Furfural production has been a strategic priority given its alignment with ISSA's ESG strategy. In 2020/21, production amounted to over 20,000 tonnes, accounting for over R1.7Bn. This constitutes 39% of ISSA's total revenues, a larger share than the 23% reported in 2016/17, demonstrating this move towards product diversification.

Product affordability

Ensuring affordability alongside the availability of sugar is important in a market such as South Africa, where 20.5% of people live below the poverty line of \$2.15 a day. ISSA reviews its pricing strategy in the context of social responsibility, given the South African context, to ensure its sugar is not cost-prohibitive for lower-income consumers. It also conducts market research and produces different pack sizes to meet consumer needs and expand much-needed access to its range of products.

Although classified as an upper-middle-income country, South Africa has around 27% of children whose physical growth is stunted, meaning they will likely not reach their full growth and development potential due to irreversible damage caused by inadequate diets.⁵ As such, ISSA must keep working together with the government to help fight child malnutrition in all forms.

⁴ World Bank Group (2021), [Climate Risk Profile South Africa](#)

⁵ United Nations South Africa (2021), [The 'slow violence' of malnutrition in South Africa](#)

Economic contributions

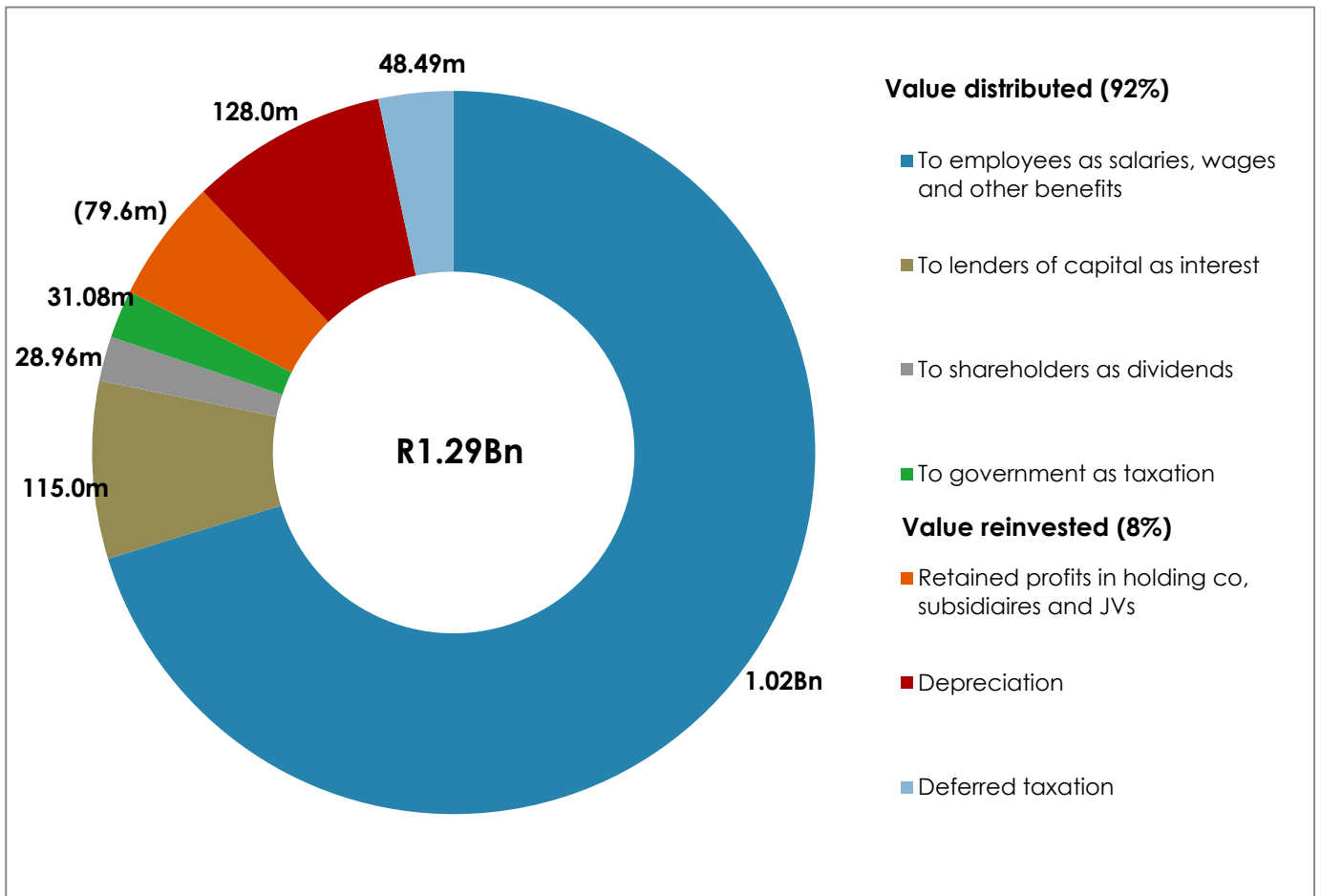
As one of the larger of South Africa's sugar manufacturers, which also sources 92% of its sugar cane from external growers, ISSA plays a significant role in the nation's sugar sector. This in turn means that the rural populations who grow and harvest the sugar cane, as well as the supporting industries that supply to ISSA and small local businesses that have grown around its areas of operation (e.g., transportation, retail and food), stand to benefit from ISSA's economic multiplier effects. The three main areas of economic impact are:

1. **Direct impacts**, through ISSA's direct employment of workers on farms and in factories, as well as tax payments, interest spending, shareholder dividends, investments and other payments;
2. **Indirect impacts** in the value chain. A significant contributor to indirect economic impact is the large number of independent growers in Illovo's supply chain who deliver and are paid for their cane via cane supply agreements with Illovo's mills. Other indirect impacts include payments to other suppliers and distributors, as well as impacts on those selling Illovo Sugar Africa products or using them in their businesses;
3. **Induced impacts**, through spending by direct and indirect employees, leading to increased consumption and employment elsewhere in the economy. This also includes the employment and additional service providers operating on grower farms, which exist in the rural economy as an indirect result of the Illovo value chain and include the creation of Small to Medium-sized (SME) service providers, themselves also rural employers.

Direct economic impact

ISSA's direct contribution to the economy of South Africa, measured in terms of gross value added, was R1.29Bn in 2020/21. This number is calculated as the difference between revenues and outgoings and is a measure of the company's contribution to GDP. Of this, 92% was distributed to stakeholders, namely employees, shareholders and the government. The largest component of this is to employees as salaries and benefits, making up 79%.

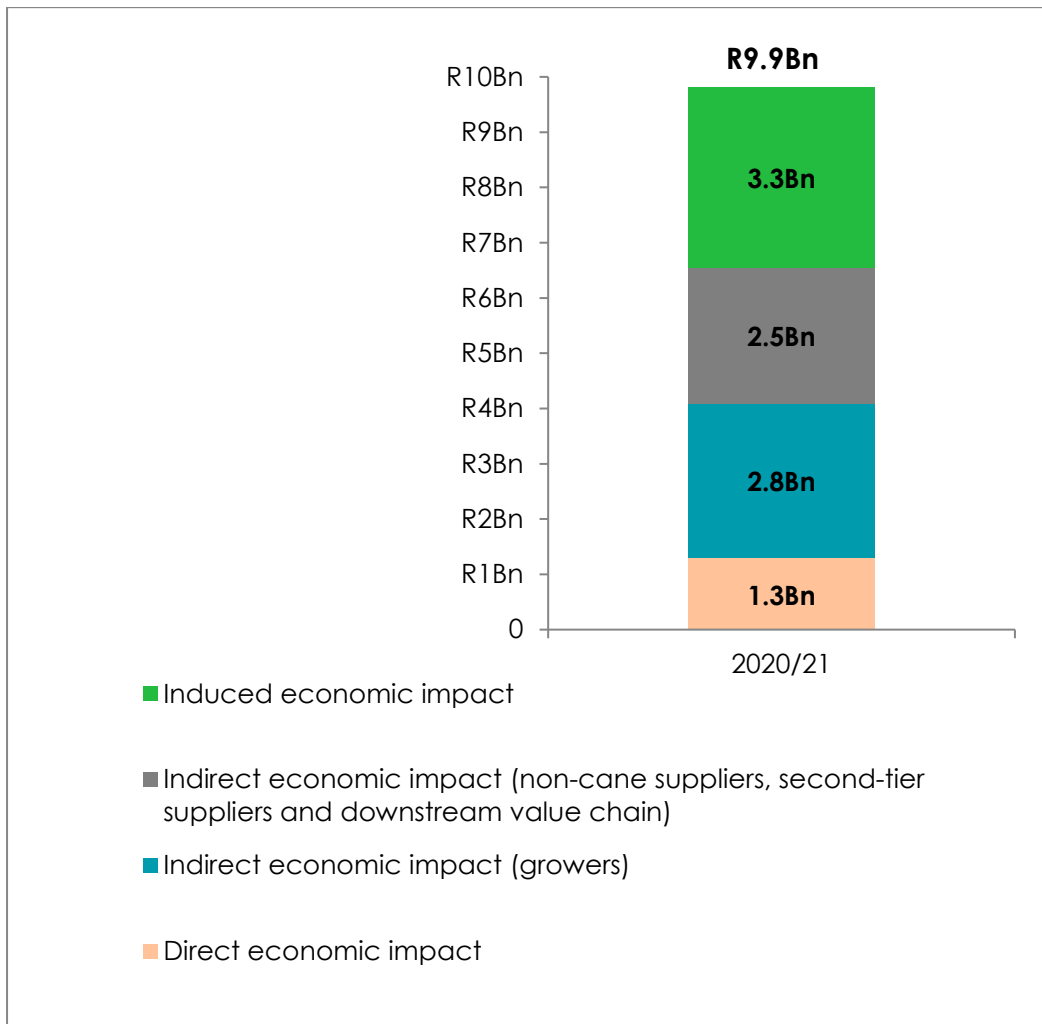
Figure 3: ISSA's direct economic impact, 2020/21 (distribution of gross value added)



Total economic impact

ISSA's total economic impact – including direct, indirect and induced impacts – is estimated at R9.8Bn for 2020/21.

Figure 4: ISSA's total economic impacts in South Africa (estimated), 2020/21



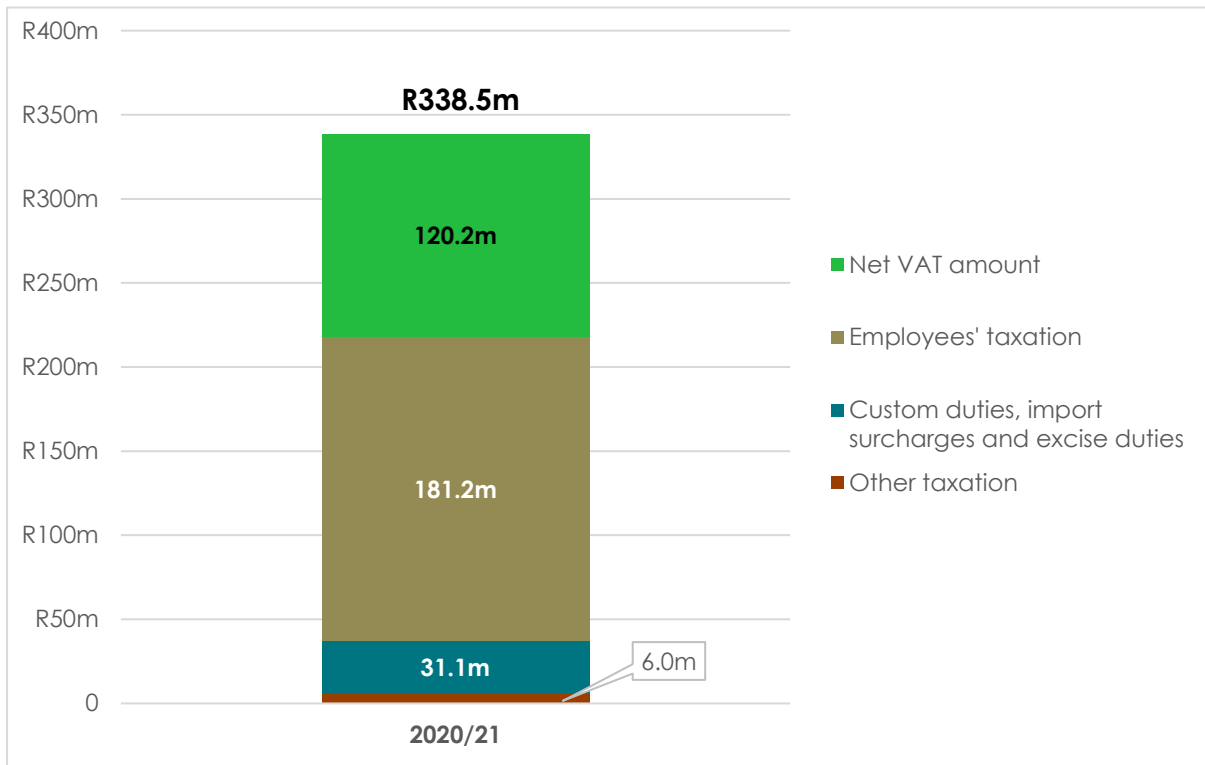
This R9.8Bn total economic impact marks an approximately 2% increase on the R9.6Bn total impact reported in 2016/17. The biggest driver of this change between the two years was the indirect economic impact on growers which has grown by 16% since our previous assessment as ISSA sources more from indirect growers.

Tax contributions

As the largest cane sugar producer in South Africa, ISSA is an important contributor to South Africa's tax revenues. In 2020/21, ISSA's direct tax payments amounted to R31m, while indirect taxes (which are collected on behalf of the government) totalled R307m.

Indirect taxation includes employee tax, withholdings tax, VAT and forms of social security contributions withheld from employees' salaries. Also included in this figure is ISSA's Carbon Tax Liability. The total represents an increase of 32% on the R256.7m total tax payments made in 2016/17, driven largely by increased VAT spending in addition to customs duties, import surcharges and excise duties.

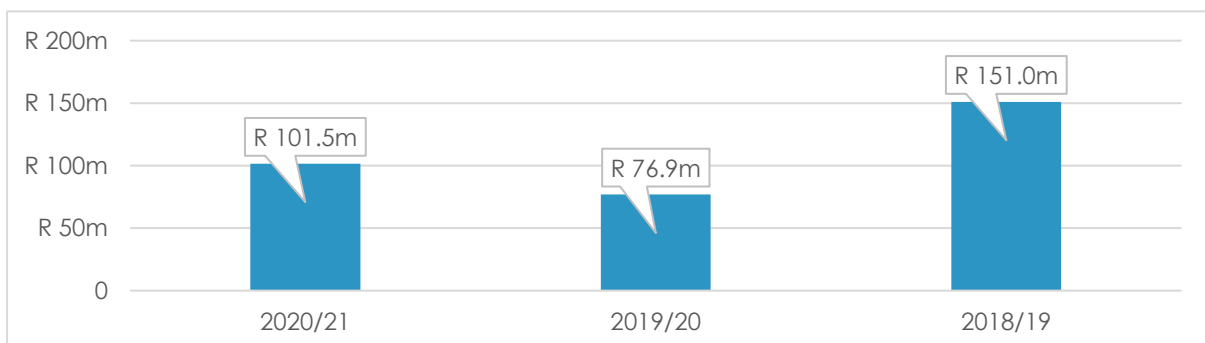
Figure 5: ISSA's tax payments, 2020/21



Capital expenditure

ISSA's capital expenditure has decreased since 2018/19, falling by 33% from the R151m spent in 2019 to R101.5m in 2021. Additionally, the total capital expenditure ISSA has spent from 2019-2021, totaling R329m is a 41% decrease from the R554m invested in total between 2015 and 2017, covered in our 2017 study. ISSA's capital plans are aligned with its ambitions to drive a successful and sustainable business into the future. In this regard, its focus is on incremental enhancements through capital spending on areas that will deliver improved operational performance and reduce its environmental footprint through greenhouse gas emissions and water footprint reduction. Examples of this can be seen in the R2m spent on boiler efficiency improvements.

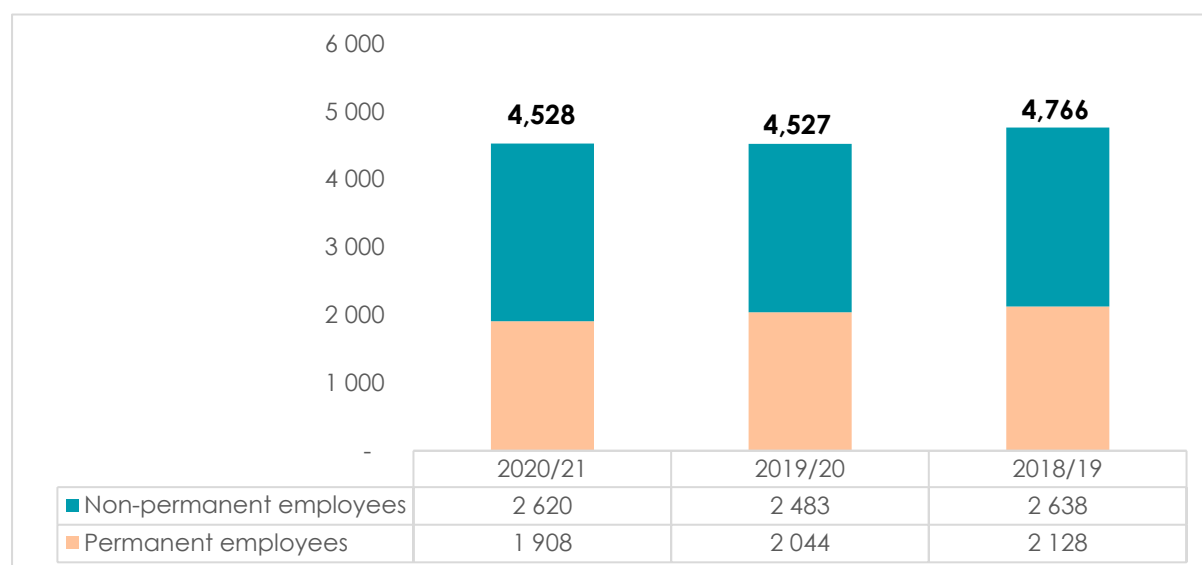
Figure 6: ISSA's capital expenditure, 2018/19 – 2020/21



Employment

Our engagement with local communities revealed that one of the most important impacts valued by local leaders, community organisers and ISSA's employees is the rural employment opportunities ISSA has created.

Figure 7: ISSA direct employment, 2018/19 – 2020/21

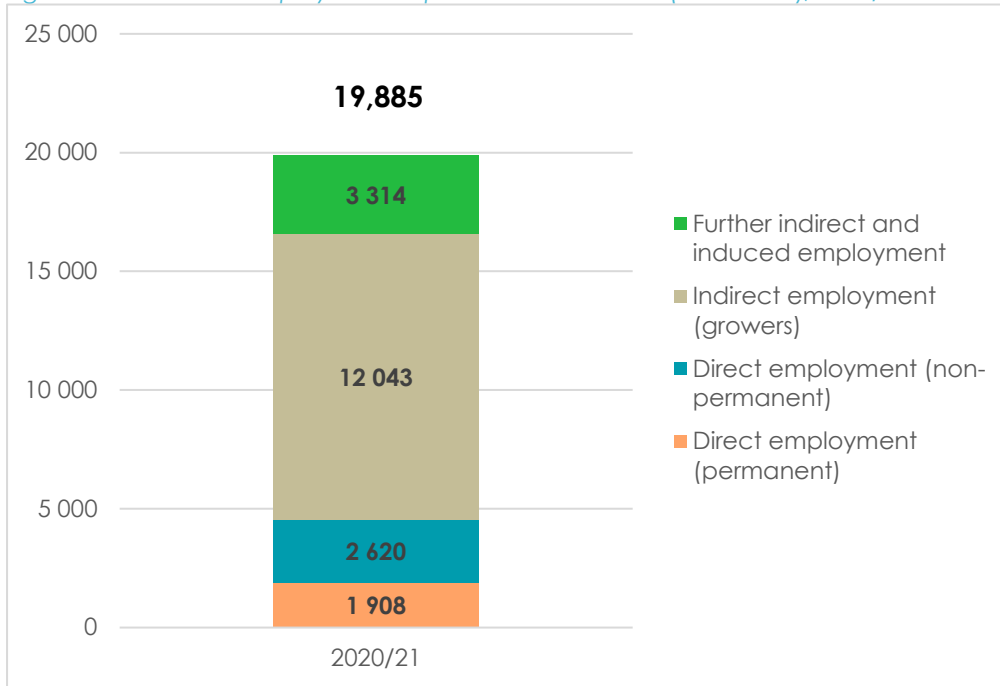


In 2020/21, ISSA directly employed 1,908 permanent employees and 2,620 non-permanent/seasonal employees at peak periods. Since our last assessment, permanent employee numbers have remained broadly stable, fluctuating within a margin of 10% of the 2020/21 number since 2015. There has been however a notable rise in non-permanent employees up by over 150% compared to 2016/17. This reflects the increasing demand for seasonal employees for off-crop for manufacturing and agriculture.

ISSA paid a total of R1.01Bn to employees in 2020/21, across direct salaries, wages and other benefits; this was 13% higher than the amount paid in 2016/17.

In addition to direct Illovo employees, approximately 4,385 independent small, medium and large-scale growers deliver their cane to Illovo's mills, thereby contributing significantly to indirect economic impacts within Illovo's value chain. The business also contributes to further indirect and induced employment in South Africa. We estimate ISSA is supporting the employment of at least 19,885 people in total in South Africa, based on a conservative multiplier for the sugar industry. This means that for every direct employee of ISSA, at least 3.4 other workers are supported through grower communities and in the wider economy.

Figure 8: ISSA's total employment impacts in South Africa (estimated), 2020/21



We estimate these direct jobs provided by ISSA contribute to supporting the livelihoods of 15,124 people once families and dependents are considered. This is based on an average household size of 3.3 in South Africa.⁶ Illovo's level of support will vary between households – for some, such as direct employees and growers, ISSA may well be the main contributor to household income, while in others ISSA's support will be a factor among many.

The total employment impact of ISSA has fallen by 21% in 2016/17, from an estimated 25,330 livelihoods supported. The greatest decrease in employment impact lies in the 32% fall in the number of growers employed. We noted from our interviews that growers are currently facing challenges such as financial vulnerability and cane-damaging floods which in turn are dissuading new workers from entering the labour market. Such barriers would make it more challenging for ISSA to maintain the same levels of grower employment year on year.

⁶ [Department of Statistics SA \(2022\), What do South African households look like?](#)

FUTURE FACING CHALLENGES

By far the greatest challenge facing ISSA is its dependency on growers and the unstable social, economic and environmental contexts that growers must navigate. Floods have destroyed not only homes and infrastructure but farmers' crops and therefore their livelihoods. If ISSA is to maintain its own resilience in this climate, it is crucial it addresses the needs of cane growers who are becoming more reluctant to enter the cane labour market, evident by the notable fall in growers supplying ISSA from our last report. Efforts to support growers, particularly small-scale growers, would not only benefit ISSA by ensuring steady production and greater employment impact, but would also be in line with the South African government's Vision 2030 Masterplan for the sugar cane-based value chain.

"Issues with flooding are very challenging. Very challenging to resuscitate cane – there is no funding for maintenance of access roads it is very challenging. Because of the are we work in there is no way of us getting assistance. We need blended finance and a loan facility. Goes a long way in improving hunger issues ... Labour is becoming a problem – people don't want to work the fields anymore."

- Mam Busi

Small-scale grower, South Africa

From an economic perspective, the risk of falling cane procurement is having a negative effect on ISSA's sugar output, which the company has begun to address by diversifying its offering through an increased share of downstream products as a proportion of total revenues. This approach should be continued, and with products like syrup and furfural having demand worldwide, government partnerships to open more export channels can support financial resilience, which can support ISSA's ability to contribute positive economic impact to domestic markets.

Sustainable agriculture

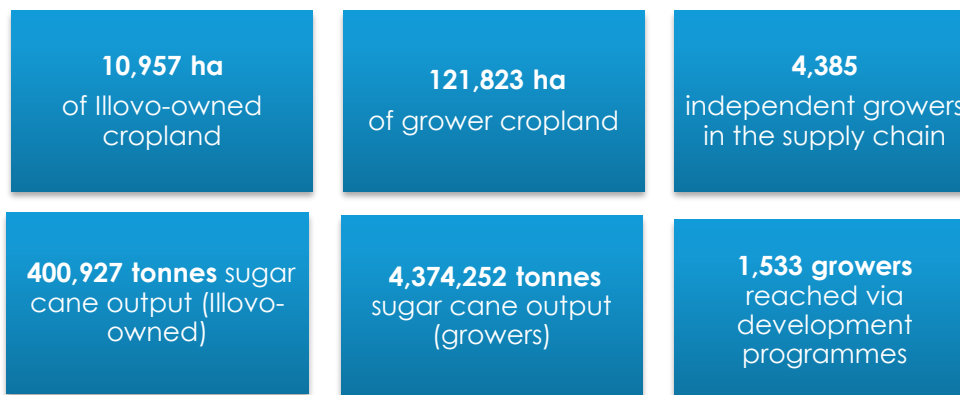
Creating value from local agricultural resources in a responsible, sustainable manner provides the opportunity for multiple stakeholders to share in the beneficial outcomes of commercially orientated community projects. Through Illovo Sugar Africa's transfer of knowledge and its ability to facilitate community access to scarce resources, sugar cane becomes one of many agricultural crops contributing to rural economic growth.

Key pillar findings:

ISSA has made significant investments in sustainable agriculture research and improvements, particularly for grower livelihoods and productivity.

Support is being provided for growers across several key areas through the company's grower development programme, with the area of grower-managed sugar cane expanding in recent years. However, growers identified a need for improved support for increased agricultural productivity and sustainable practices. ISSA's high dependence on growers, who produce 92% of the company's sugar cane, makes continued support essential.

Climate impacts are starting to be felt, with concerns over water scarcity, erosion due to flooding, and diseases and pests. Some initiatives are in place to address these issues, however, there is room for more concentrated efforts.



ISSA's agricultural practices

ISSA has influence not only over the practices of the land it manages but also over the growers whom it works with. Many of the potential environmental and social impacts from sugar cane farming relate to land-use change from converting land which may otherwise be used for other purposes, such as subsistence farming, or biodiverse wild habitats. For this reason, much of ISSA's overall approach to improving farming sustainability is to focus on increasing vertical growth through achieving higher yields per hectare of existing cropland, held both by ISSA and growers. This drives the positive social and economic impacts of sugar cane production while minimizing additional environmental impacts from expanding land conversion.

Environmental management

ISSA manages all of its own land according to the SUSFARMS® environmental management system, which was pioneered by growers supplying sugar cane to Illovo South Africa's Noodsberg mill, in partnership with the World Wildlife Fund (WWF). The company also has an environmental policy covering multiple elements, including risk management, air quality, water quality and other areas.

Water use and crop irrigation

South Africa has suffered from issues of water scarcity, with climate change impacting water resources via reduced water volumes in rivers and lakes and increased rainfall variability. In particular, droughts are considered South Africa's most significant climate-related hazard.⁷ At the same time, flooding has also impacted ISSA's agricultural production in recent years. Flooding is particularly harmful to sugar cane crops since a flood can wipe out crops which could otherwise be regrown for several years, thereby causing a higher loss of capital expenditure on the seed cane, than would be caused by other annual crops.

Our engagement indicates that 100% of ISSA's agricultural area was dryland during the reporting year, meaning production is entirely dependent on rainfall, with no irrigation systems in place. This makes ISSA's sugar cane production highly vulnerable to the effects of climate change. Interviews with onsite employees indicated that currently, no plans are in place to develop irrigation systems or solutions for these impacts. However, as noted above, droughts are considered South Africa's most climate-related hazard in terms of cane cultivation, and challenges to irrigation include obtaining legal water rights to draw from water-scarce catchments, aside from cost. This is important as ISSA considers its future role in maintaining agricultural productivity which and where feasible, may require access to supplementary irrigation.

Crop harvesting and the move to green-cane

Currently, ISSA harvests much of its own sugar cane using cane burning methods followed by manual harvesting. Cane crops are burned to remove brownleaf from the crop without damaging any of the inner sugar content. Burning the cane enables cane cutters to harvest the cane stalks using cane knives. Without pre-burning, the cane must be stripped of its leaves and other plant material (called trashing) in order to facilitate infield loading and transport operations, and optimal processing of the cane in the factory. While efficient, the burning process creates air pollution that could be eliminated via mechanised green-cane harvesting. However, for ISSA's geographic context, much of their cane fields are on slopes which makes mechanised harvesting challenging to implement effectively. Without mechanisation, manual cane harvesting is laborious without pre-burning to minimise the cane weight for cutters. In this specific context, there are multiple factors to consider when determining what the most sustainable yet practical method for cane harvesting should be.

In addition to air pollution, the cane burning process also emits some greenhouse gases, although these may be seen to be balanced out through carbon sequestration by the cane as it grows. It is recommended that ISSA explores measuring and reporting the impact of these biogenic cycles in more detail in future, with reference to a methodology such as the Greenhouse Gas Protocol's emerging guidance specifically for land sector and removals.⁸

Chemical inputs: pesticides and fertilizers

ISSA currently uses selected chemical inputs for sugar cane farming. The use of chemical inputs such as fertilizers and pesticides must be balanced between the need to increase yields without expanding land conversion, with also minimising negative impacts on the soil and runoff into waterways.

⁷ [World Bank Group \(2021\) Climate Risk Country Profile South Africa](#)

⁸ [Greenhouse Gas Protocol \(2022\), Land Sector and Removals Initiative](#)

There are various motivations for the company to reduce the usage of chemical inputs where possible, including the rising costs of agricultural inputs, reducing human interactions with potentially harmful chemicals, preserving soil health and reducing environmental impacts. ISSA currently has various methods for reducing the negative impacts of chemical inputs, including the use of biodegradable chemicals and preventing run-off via careful timing of irrigation and pesticide application.

Biodiversity

ISSA's intensive economic development and agricultural intensification puts pressure on land and natural bush in the surrounding areas. However, ISSA is aware of the pressures on biodiversity and natural areas. The company is currently undertaking an evaluation of all sites to assess risks, particularly biodiversity risks posed by vegetation. For example, alien invasive species assessments are being conducted with follow-up plans to eradicate invasive species.

Grower livelihoods and agricultural practices

Grower livelihoods

ISSA works with 4,385 external growers, which are a mix of commercial (288), medium-scale (60) and small-scale growers (4,037). These growers supply 92% of ISSA's sugar cane, with the remainder coming from the company's own land.

These growers are independent farmers within the areas surrounding the company mills. ISSA purchasing from these growers provides income in rural areas where ~82% of the rural population is considered poor.⁹ Poverty continues to be an issue in South Africa, largely driven by the lack of economic growth, a poor business climate and a lack of opportunities in the labour market. It is therefore essential that growers receive appropriate support, not only for their livelihoods but also to ensure ISSA continues to have a resilient and stable source of cane. As such, ISSA plays a key role in providing agricultural income opportunities in areas where they otherwise may not exist.

⁹ [World Bank Group \(2022\), Poverty & Equity Brief: South Africa](#)

Figure 9: Volume of sugar cane from company and grower land, 2018/19 - 2020/21

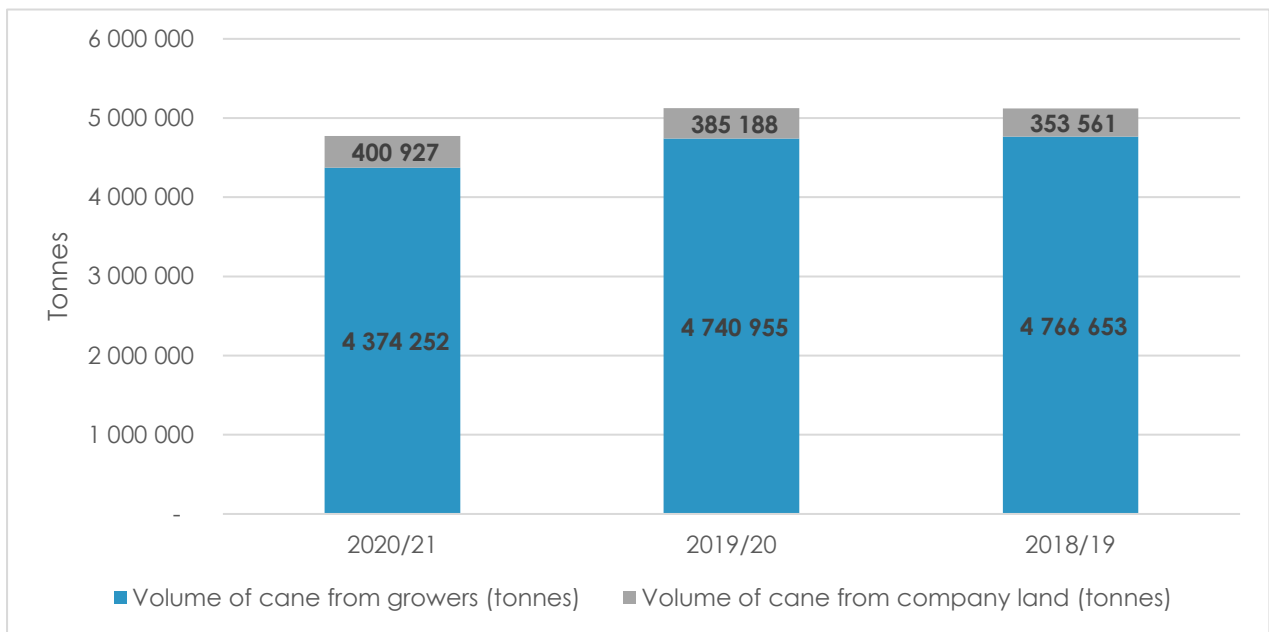
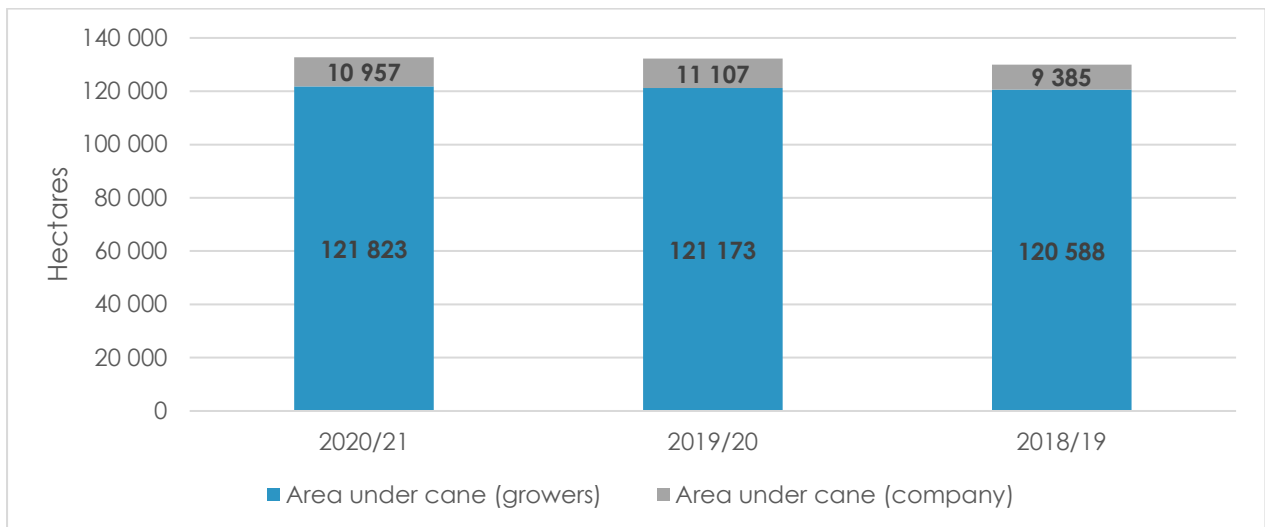


Figure 10: Area of land under cane for both growers and company land, 2018/19 - 2020/21



Grower agricultural practices

ISSA has a role in the community to not only provide employment but also to influence sustainable practices. In 2020/21, 1,533 growers benefited from grower development programmes organized by ISSA. ISSA stands to benefit from improved grower support, as this offers the opportunity for greater productivity and improved sustainability across 121,823 hectares of grower-owned cropland. Our engagement with a cooperative that supplies ISSA with sugar cane indicated that ISSA provides support in terms of training around business skills, financial management and human relations skills. Other support includes training intermediaries who provide business and operational support to small scale growers. ISSA expressed that training efforts are focused on agronomy skills, to encourage small scale growers to view their farms as businesses so that they not only maintain their production efforts but create processes focused on scalable growth to encourage greater production volumes and sustainable economic impact for growers.

However, our engagement with the cane growers highlighted that there are several challenges facing growers. Some cane growers we engaged with highlighted that these challenges are so significant that many are considering transitioning to other crops. This is a significant risk to ISSA, as the majority of the company's sugar cane supply comes from growers.

Growers would like additional support, specifically in the following three key areas:

- **Chemical inputs:** many growers are unable to afford chemical inputs, in particular fertilizer, affecting productivity.
- **Improving resilience to climate change impacts:** leading to changes in weather patterns (rainfall, droughts, flooding), diseases and pests.
- **Access to funding:** Loans are difficult to acquire, with farmers struggling to afford to replant sugar cane.

FUTURE FACING CHALLENGES

While ISSA has made significant investments in sustainable agriculture, including support for grower livelihoods and productivity, there are several key challenges for future consideration.

The impacts of climate change, while already felt, are likely to worsen in coming years with increasingly unpredictable weather patterns, extreme events (droughts, floods) and changes to pests and diseases. Water scarcity is a rising concern as portions of ISSA's agricultural land remain dependent on rainfall.

Our engagement with growers highlighted a need for further support in several key areas: increased resilience to climate change impacts, such as weather, water, disease and pests; chemical input costs; and access to financing. ISSA's high dependence on growers makes continued support for growers essential.

Value and quality-driven industry

Building on Illovo Sugar Africa's 125-year success in sugar and downstream product manufacture on the African continent, while actively encouraging innovative commercial community opportunities aligned to Illovo Sugar Africa's core expertise, is a powerful combination invited by Africa's governments to unlock national growth in the countries in which Illovo Sugar Africa's businesses operate.

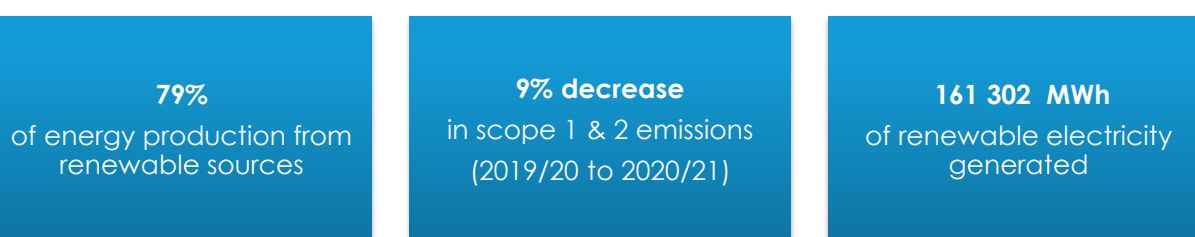
Key pillar findings:

ISSA has maintained its efforts to lead in sustainable business practices and adhere to circular economy principles. These include factories producing their own renewable electricity and utilizing waste products from the sugar production process.

ISSA has stated its intention to refresh its outreach to both existing and prospective employees in a cross-generational strategy to promote quality jobs. The company's benefits system is designed to reach as many employees as possible, with communication pushes accompanying each benefit. Of note is the partnership with ICAS mental wellbeing services and the inclusion of seasonal workers. However, the data indicates that ISSA's minimum wage is not keeping pace with the increasing South African minimum wage, a trend of which ISSA should be cognisant.

Environmental impact of operations

ISSA drives sustainable best practices throughout its operations. This includes promoting circular economy principles and innovation within business operations, such as the generation and use of renewable, non-fossil fuel sources for energy production.



Energy use and generation

ISSA, like the rest of Illovo's operating countries, generates renewable electricity as a by-product of its sugar processing operations. During 2020/21, 79% of ISSA's energy production came from renewable, non-fossil fuel sources, mostly in the form of bagasse, a fibrous residue left over after sugar cane crushing (94.5% of renewable energy), along with wood (3.6% of renewable energy) and some cane trash (1.9% of renewable energy). The remaining energy was sourced from coal and anthracite (16%), natural gas (3.5%), imported electricity (1%) and collectively less than 1% of energy from heavy fuel oil, liquid petroleum gas (LPG), diesel and petrol.

During 2020/21, ISSA's factory produced 161 302 MWh of renewable electricity from bagasse, a waste by-product of sugar production. This was mostly used to power the company's own operations and 320 MWh of surplus energy was exported to the national grid. By producing its renewable energy, ISSA cuts costs and reduces reliance on the national grid electricity supply, as well as occasionally exporting renewable electricity.

Operational emissions

ISSA currently measures its greenhouse gas (GHG) emissions from scope 1, 2 and some scope 3 activities. 95% of ISSA's carbon footprint comes from scope 1 activities, and this category is dominated by emissions from burning bagasse (constituting 73% of scope 1 emissions). While emissions from bagasse are here reported as the majority of ISSA's overall footprint, research suggests that bagasse can be considered a "greenhouse gas neutral" renewable fuel, due to the carbon absorbed during photosynthesis of sugar cane in the field.¹⁰ The impacts of this greenhouse gas sequestration are not yet measured or reflected in ISSA's emissions reporting. It is recommended that the company explores how to measure these impacts in more detail, for example using the Greenhouse Gas Protocol's Agricultural Guidance¹¹, or upcoming guidance for land sector activities and carbon dioxide removals¹².

In addition to bagasse, other emission sources include company-owned transport such as company cars and plane fuel, coal and anthracite, diesel, petrol and emissions from burning biomass materials such as sugar cane and wood (scope 1); emissions from imported electricity (scope 2); and some fuel emissions from 3rd party transport and distribution (scope 3). ISSA's total scope 1, 2 & 3 carbon emissions for 2020/21 were 1,573,564 tCO₂e, which represents 34% of Illovo Sugar Africa Group's total carbon emissions in 2020/21.

Currently, ISSA only measures emissions from selected scope 3 activities, limited to third-party transportation and distribution services. In future, it is recommended that ISSA assesses its full scope 3 emissions in accordance with the GHG Protocol's 15 categories¹³, to understand the full climate impacts of its value chain, and associated climate-related risks and opportunities.

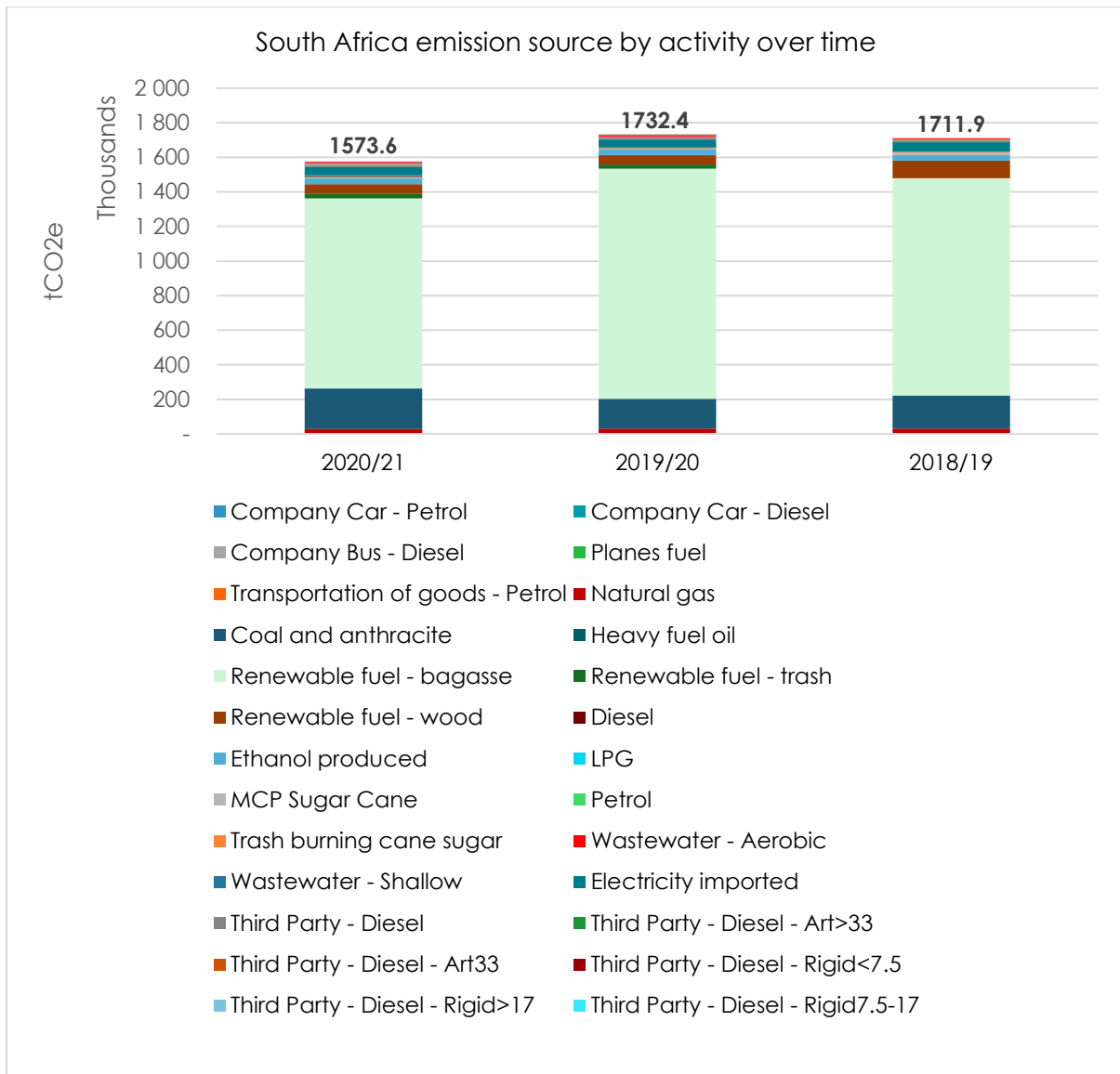
¹⁰ [O'Hara & Mundree \(2015\), Cogeneration of sugarcane bagasse for renewable energy production](#)

¹¹ [Greenhouse Gas Protocol \(2022\), GHG Protocol Agricultural Guidance](#)

¹² [Greenhouse Gas Protocol \(2021\), Update on GHG Protocol Carbon Removals and Land Sector Initiative](#)

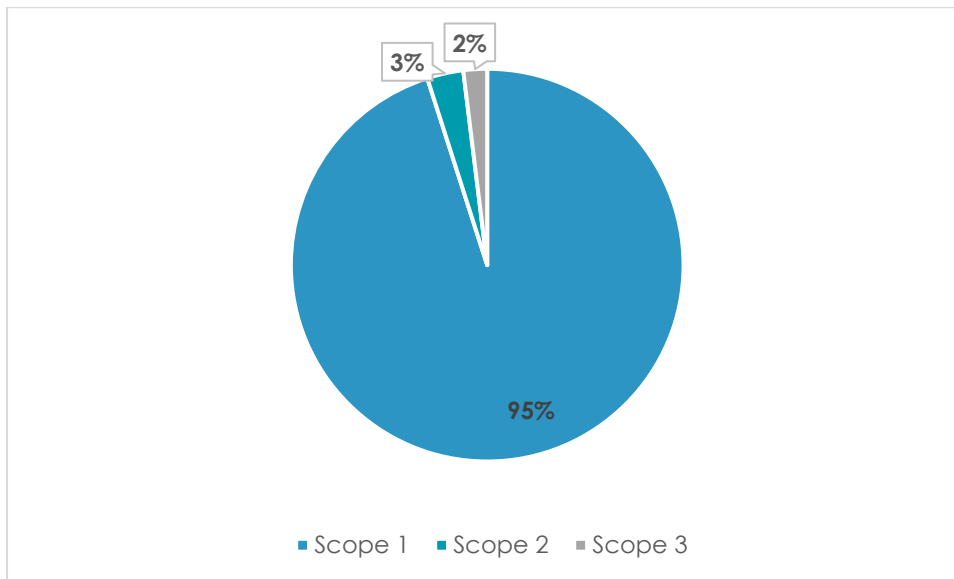
¹³ [Greenhouse Gas Protocol \(2022\), Corporate Value Chain \(Scope 3\) Standard](#)

Figure 11: ISSA's GHG emissions by source over time (tCO2e), 2018/19 – 2020/21



S

Figure 12: ISSA's GHG emissions by scope (tCO₂e), 2020/21



Air quality

Particulate air pollution emissions from ISSA's factory are monitored in line with municipal regulations and national legislation such as the Air Quality Act, to ensure compliance. Particulate emissions are generated from onsite boilers, which may have to be upgraded in future to meet increasingly stringent regulations. The factory team is also exploring ways to improve boiler efficiency in future, by reducing steam and fuel consumption, which will further reduce stack emissions.

Water use and discharge

During 2020/21, ISSA withdrew a total of 4,044 megalitres of water, which was 11% groundwater, 37% municipal water and 53% surface water. ISSA's factory aims to recycle water used within its operational processes as much as possible. Currently, water that has been used in factory processes is analyzed for effluent after use, to check for compliance with the Department of Environmental Affairs' regulation, before being discharged into the sea. ISSA shared that it has undertaken studies to determine if there are other viable long-term options to sustainably repurpose effluent, for example by recapturing and re-using more water, to minimise the amount discharged into the sea and create value for the business in an environmentally responsible manner.

Operational waste

Many aspects of ISSA's factory operations embody circular economy principles. Generally, there is little waste in the sugar cane industry, with only what cannot be reused sent to landfill. In addition to bagasse from sugar production being used for energy production, during interviews with ISSA's factory management team, they highlighted that molasses from the sugar mills is sent to the distillery for ethanol production. The Sezela mill has a downstream facility that produces furfuryl and furfural alcohol, using other by-products from sugar cane.

Decent work and quality of jobs

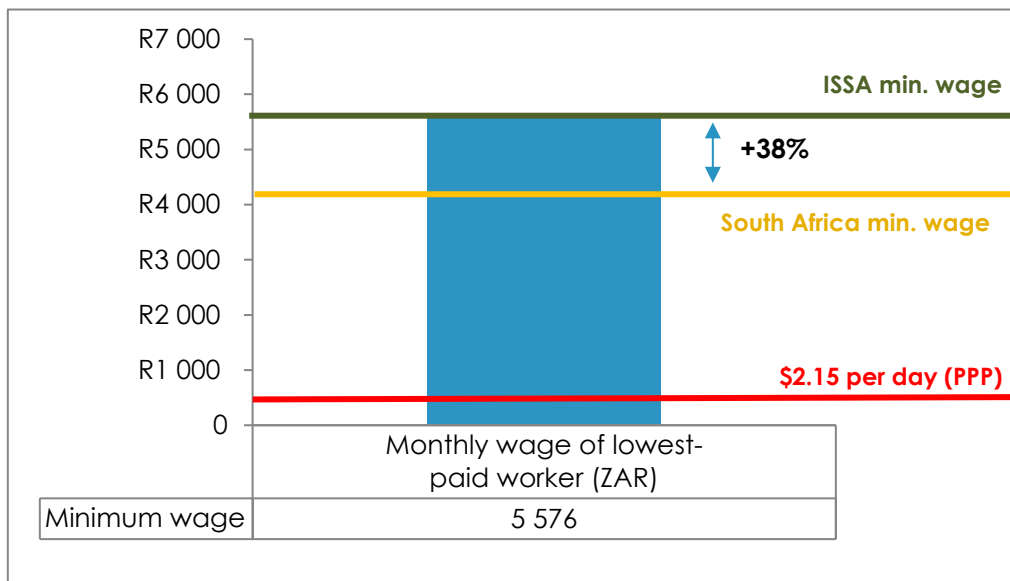
As a direct employer of over 4,500 people in South Africa, ISSA needs to ensure it is driving best practices to create high-quality jobs that attract and retain staff. The nature of the industry means there is a need for seasonal and contract workers alongside higher-skills roles such as engineers, technicians and business management professionals.



Minimum wage

ISSA monitors salary levels to ensure that it is not only compliant with in-country legislative requirements, but that the lowest-paid workers' minimum wage exceeds South Africa's minimum wage. ISSA's minimum wage also far exceeds the global poverty line set by the World Bank at \$2.15 purchasing power parity.¹⁴

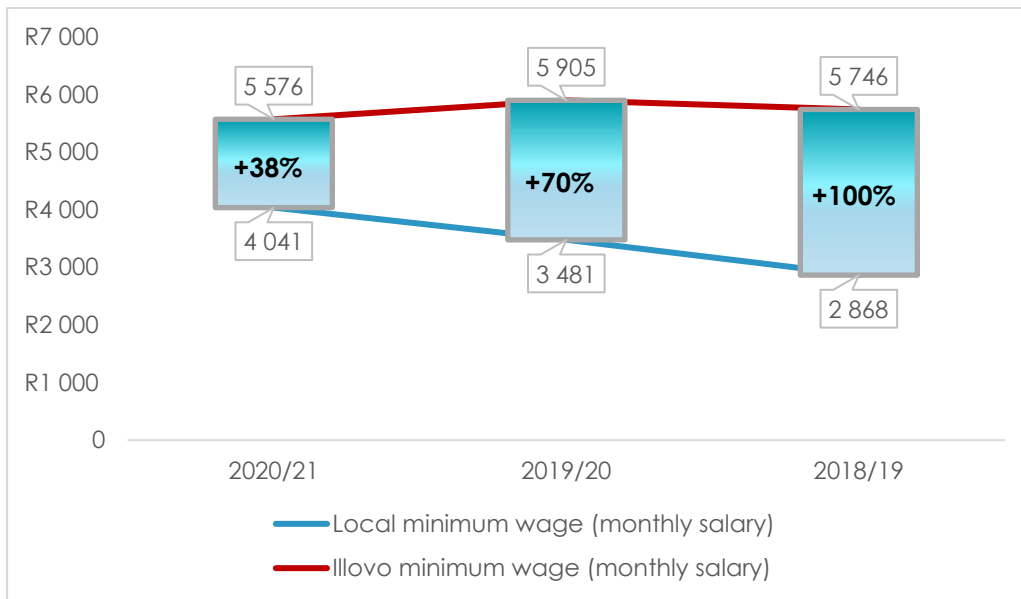
Figure 13: ISSA's lowest monthly wage against the national monthly minimum wage, 2020/21



ISSA's minimum wage has remained generally stable since 2018/19, but we did note a 101% increase of R2,779 from 2016/17. Meanwhile, South Africa's minimum wage has increased steadily, from R2,868 per month in 2018/19 to R4,041 in 2020/21. This means that the wage ISSA pays its workers over the national average has been decreasing year on year, from just over double the national minimum wage in 2018/19 to 38% above it in 2020/21.

¹⁴ [World Bank \(2022\), An Adjustment to Global Poverty Lines](#)

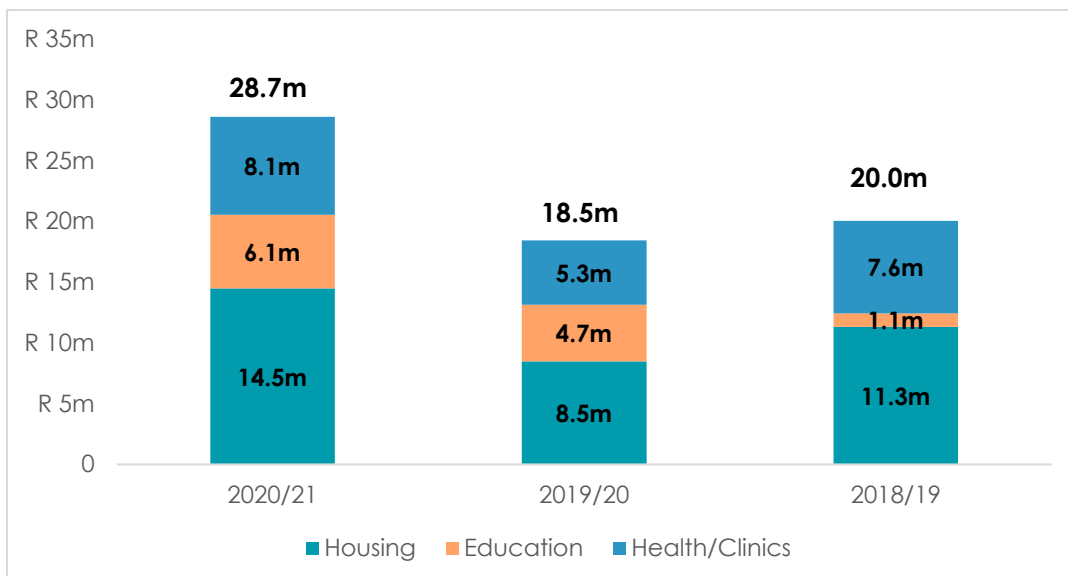
Figure 14: Rate of growth between ISSA's minimum monthly wage against the national minimum wage, 2018/19 – 2020/21



Employee benefits

ISSA employees are entitled to a number of different benefits in addition to salaries, particularly with regard to primary healthcare (e.g., ISSA employees are entitled to a number of different benefits in addition to salaries, particularly with regard to primary healthcare (e.g., dentistry, opticians etc.), pension funds, car allowances, grants, bursaries and wellbeing assistance.

Figure 15: Total spend on benefits offered to employees and their dependents, 2018/19 – 2020/21



Spotlight: ICAS Partnership

ISSA is partnered with global wellness services provider ICAS to attend to the mental health of its employees. The availability of this service is communicated internally and our engagement with ISSA indicated that some employees take advantage of it, particularly in the wake of natural disasters such as flooding.

ISSA spent R28.6m on employee benefits in 2020/21. Over the past three years, this is a 43% increase on the R20m spent in 2018/19. ISSA advised us that this increase was largely due to the increased need for clinic services and vaccine drives during the COVID-19 pandemic. We also noted that this recent rise will almost bring total benefits spending to 2016/17 levels, which we reported as R29.2m, just 2% greater than 2020/21 spending. These benefits extend to both permanent and seasonal employees. ISSA has recently revised its benefits for seasonal employees, moving from a providence fund to hold employee bonuses for multiple seasons worked, to a more immediate credit-based system aimed at improving employee retention.

ISSA revealed to us that benefits and perks available to employees are accompanied by company-wide communications drives, aiding in making them known to recipients. This would be particularly helpful with such benefits as training or funding opportunities. The role of communications

here is part of a wider trend we have noted in ISSA, as it is considering how to reach out to younger generations with a refreshed marketing strategy aimed at identifying what employees truly want.

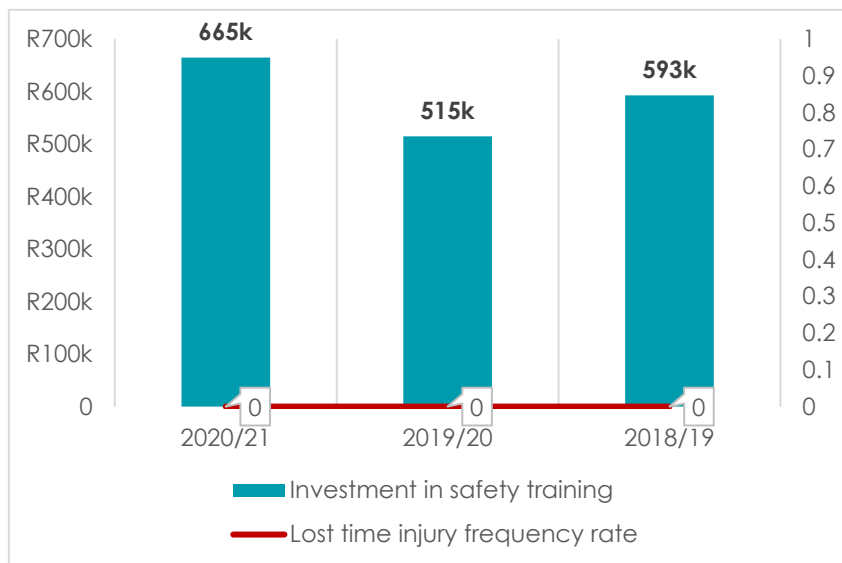
Occupational health, safety & development

Our engagement with ISSA demonstrated that it actively considers the safety of its employees, underpinned by rising investment in safety training. It is also looking at how improvements to this policy might be made, though it was suggested that the company considers, given the presence of hospitals and clinics on site, that the existing safety infrastructure present might be sufficient.

Safety training

ISSA invested R665k in safety training in 2020/21, a rise in investment of 12% from 2018/19 when R593k was invested. The lost time injury frequency rate has remained stable since 2018/19, at 0 LTIs per 200,000 hours.

Figure 16: ISSA's total investment in safety training (R) and LTIFR, 2018/19 - 2020/21



Other training & job opportunities

ISSA also invests in training for employees. In 2020/21, ISSA invested R5.27m in training and development, involving 2,260 employees. Investment in training opportunities has fallen year on year since 2018/19, a 48% decrease from R10m.

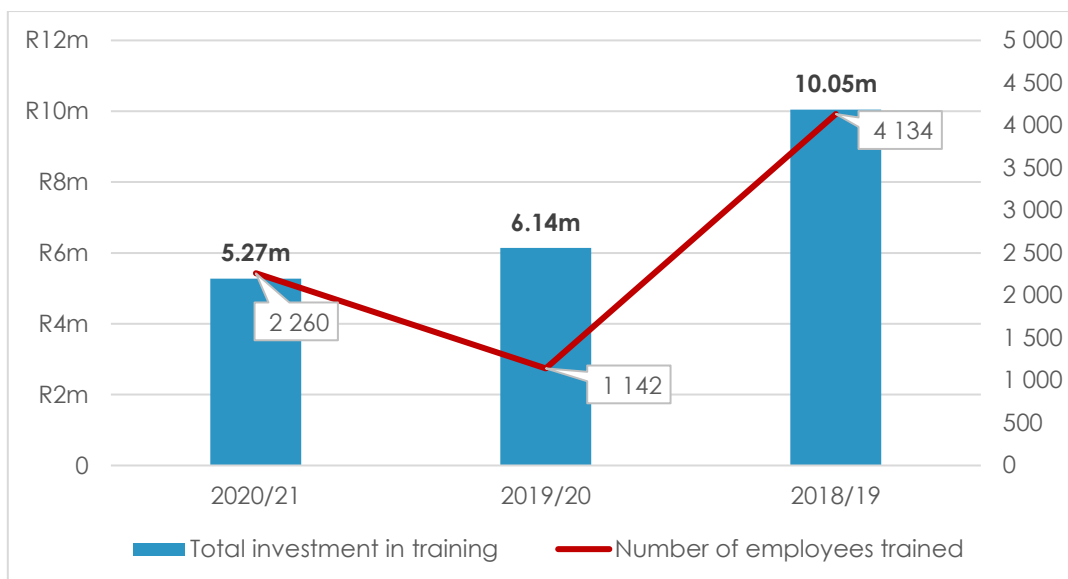
The training opportunities offered by ISSA are extensive, covering programmes for all levels of employees. From our engagement, we identified the following key areas of training:

- Competence development of the sales representatives and regional sales managers;
- Supply chain development;
- Management & leadership development;
- Unemployed youth development initiatives e.g., Learnerships, Apprenticeships, In-service Trainees Graduates and Bursaries;
- Training of unemployed youth living with disabilities
- Statutory compliance training
- Supporting sustainable cane supply;
- Engineer-in-training (EIT) programme

In addition to the above, ISSA stressed their commitment to integrating training with its ESG ambitions, particularly around economic inclusion.

We have noted that ISSA stakeholders such as AgriSETA and Foodbev SETA have identified skills development for employees and South Africans as a key area of interest, stressing the need to maintain momentum in training programmes both in and out of the business.

Figure 17: ISSA's total investment in training (R) and number of employees trained, 2018/19 - 2020/21



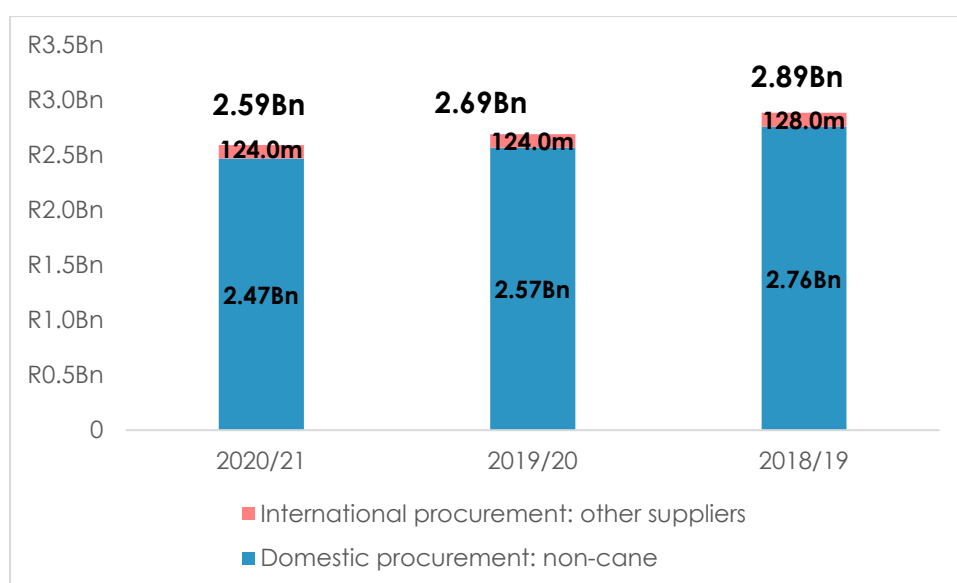
Value chain impacts

One of ISSA's more significant opportunities is the socio-economic impact it can create within its value chain, including both upstream (through procurement from suppliers) and downstream (through retailers of Illovo's products).

Procurement

In 2020/21, ISSA spent a total of R5.4Bn on procurement, with R2.8 Bn on cane from growers and R2.6Bn on domestic non-cane procurement. Local sourcing is a strategic priority, amounting to 97.7% of total procurement spend, and our analysis indicates this is supported by ISSA's strong focus on domestic procurement of R2.46Bn over international procurement, which totalled a much lower R124m.

Figure 18: ISSA's non-cane supplier spending, 2018/19 – 2020/21



Retail and distribution

ISSA has a significant downstream economic impact, as domestic sales involve many distributors/agents, wholesale chain stores, independent wholesalers, sub-wholesalers, grocers and tabletop vendors, who act as resellers to consumers. ISSA continues to invest in building strong relationships with its distributors and partners. It maintains strong and healthy relationships that unlock mutual benefits and delivers value for its consumers.

FUTURE FACING CHALLENGES

While ISSA continues to invest in training for its employees, the total investment has declined since 2016/17. A continuously evolving training program is key to a successful business and the company should consider a means of identifying areas of opportunity where its employees could benefit from strategic upskilling.

Regarding training for indirect employees, we noted one area of opportunity for ISSA to make a real difference addressing the challenges facing the sugarcane value chain. When interviewing growers, they articulated the needs of growers in South Africa and in addition to sustainable financial aid, they felt as though more training would be required to improve their crops resiliency. As an industry leader in the country, ISSA is well placed to offer skills-based training to growers which would generate both positive social impact and create value for ISSA by strengthening its supply chain.

Our analysis also identified a trend around minimum wage. As it stands, ISSA has always paid an internal minimum wage above the national average, but as South Africa's minimum wage has been increasing steadily since 2019, the difference between them is diminishing. To remain a value-driven organisation, we suggest ISSA consider its minimum wage with a possible intent to raise it.

Community connected

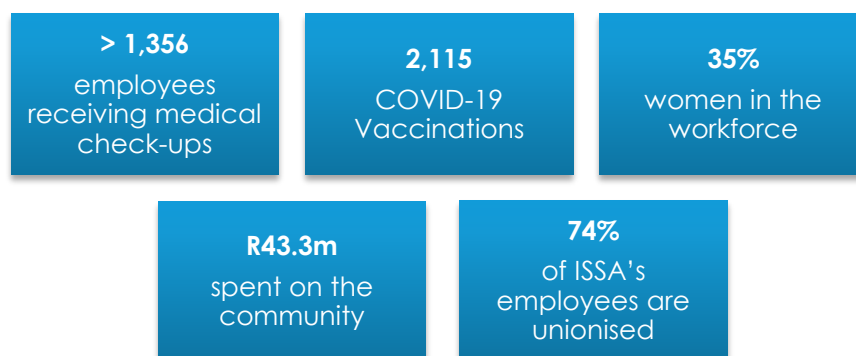
Collaborative and cooperative stimulation of economic activity, hand-in-hand with the people, civic structures and the governments of local communities, strengthens the growth and development of African nations.

Key pillar findings:

ISSA has a significant role as a business in providing support to its employees and families on its estates, along with addressing challenges such as human rights, child labour and diversity in its own operations and in the value chain.

While the company has started creating policies and partnerships to make it easier for women to participate in the workforce, it should consider creating more targeted programmes to give women the opportunity for higher-paying and skilled jobs.

ISSA has developed partnerships with local communities, civic organizations and NGOs to help address some of the key social and economic challenges facing the wider community. However, our engagement with external stakeholder indicated that significant issues still exist, with rising rural poverty, unemployment and climate related weather extremes. Greater stakeholder engagement is needed to identify ISSA's role in addressing these issues within the wider community.



There are many elements to creating thriving communities. ISSA's impacts range from how the business provides support to its employees and their families, to how it addresses challenges such as human rights, child labour and gender diversity within its own operations and in the value chain. ISSA must also play an active role within the wider community, including regular stakeholder engagement to understand local concerns and challenges, along with working with partners to address these.

Human rights and labour standards

Given the rural nature and range of informal work settings that make up the sugar supply chain, it is challenging to gain insight into the working conditions of workers and risks of child labour, where hazardous and exploitative working standards can exist. ISSA, as part of the wider Illovo Sugar Africa Group, is committed to preventative measures against human rights

abuses, including land rights, in line with the United Nations Global Compact (UNGC) and the United Nations Guiding Principles on Business and Human Rights (UNGP). This is applied to all suppliers and growers.

Through established collective bargaining agreements with unions and in-house country dispute resolution mechanisms, employees can raise grievances through formal means, called 'Speak Up'. 74% of ISSA's employees are unionized, down from 79% in 2016/17.

Land rights

[Illovo Sugar Africa's Group Code of Conduct and Business Ethics](#) states that it is committed to respecting internationally recognised human rights and has adopted policies and practices to protect against human rights abuses, including land rights, in line with the United Nations Global Compact (UNGC) and the United Nations Guiding Principles on Business and Human Rights (UNGP). All suppliers and Group operations are required to follow both the Code of Conduct and the [Group Guidelines on Land and Land Rights](#) that specifically commits to a zero-tolerance approach to land grabs. This is monitored through impact assessments, stakeholder engagement through local authorities, providing technical and financial support to local partners and participating in programmes to redistribute land to the appropriate communities.

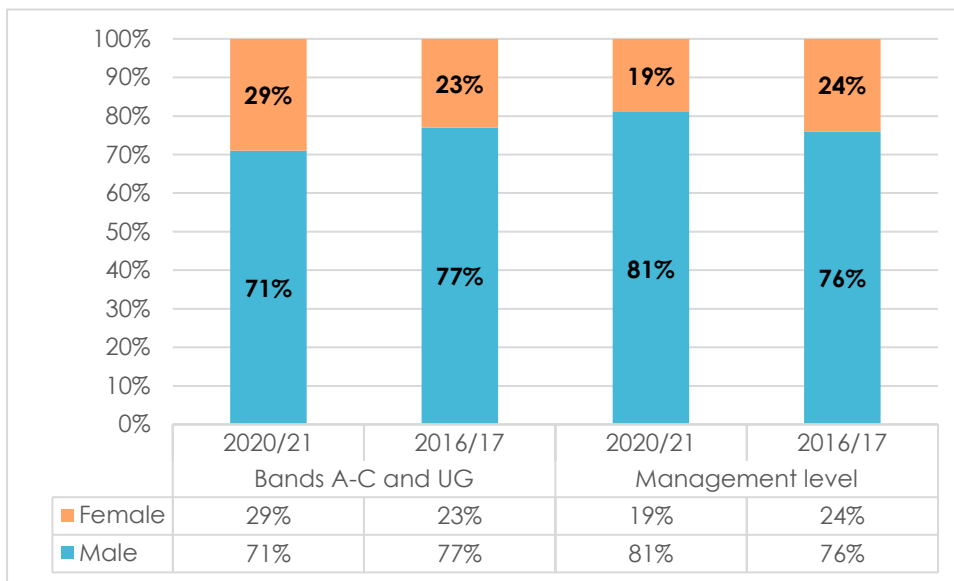
Employee diversity & inclusion

Diversity, equity and inclusion (DEI) especially as relates to gender is a topic at the forefront of the agenda for most companies globally. As a leading company within South Africa, ISSA has a key role in promoting DEI across its own workforce and within the grower and broader community it interacts with.

In the workforce

ISSA has put policies in place to try and make employment more accessible for women. A new equity plan for the next five years was developed in 2020, which includes targets to employ a diverse workforce. As part of ISSA's ESG priorities, Diversity, Equity, Inclusion and Belonging have been selected as areas of focus to create a workplace safe from harassment, and accommodating of its diverse backgrounds, beliefs and cultural practices. As part of the activity, ISSA has implemented various initiatives aimed at the galvanizing commonality of purpose through engagements and conversations with various employee stakeholders such as the women's circle and the men's forum where various issues get ventilated in an open environment. Plans are in place to deepen this work and grow it over the next few years.

Figure 19: ISSA's permanent employees by gender, 2016/17 - 2020/21



Women in the community

Our engagement with a partner of ISSA highlighted that its support has been highly beneficial for the women and youth in the community. One particularly important partnership is its work with Raizcorp, ISSA's implementation partner (see Spotlight). Our engagement highlighted that ISSA's incubator programme has encouraged women and young people in the community to embrace entrepreneurial endeavours and further tackle the stigma around women in business. However, continued support, along with the expansion of the programme to additional areas, is needed for the ongoing success of the programme.

Spotlight: Thuthuka Nathi, Incubator Programme

Through its partnership with Raizcorp, ISSA's [implementation partner](#) and a business incubator company, ISSA has been able to develop Thuthuka Nathi. This is an enterprise and supplier development programme, helping to upskill local start-up business owners to support the local communities where ISSA operates. A total of 20 youth and women business owners, in two communities, participated in a 12-month learning programme to develop business skills such as sales, marketing, strategy and finance. Over the last 2 months, a competition was held where participants could pitch their business model to a group of judges compiled from Raizcorp and Illovo.

Community resources and services

ISSA provides various benefits, resources and services for employees, their families and the wider community outside the regions in which it operates.

Education

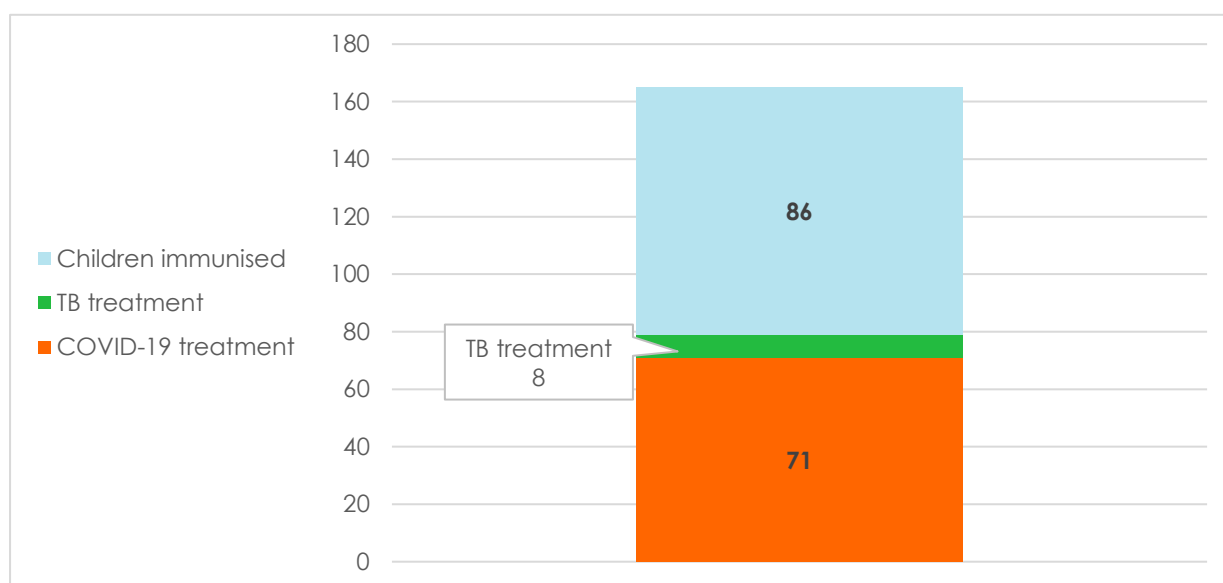
ISSA invests in community education through the 'adoption' of high schools in the regions in which it operates. These high schools pass on further support to an additional two schools, allowing ISSA to provide a wider reach of improved educational resources and better teaching. This then supports talent for local businesses and eventually greater social impact.

As part of its new ESG strategy, ISSA had defined a new schools project, the Thuthuka Nathi STEM Centres of Excellence programme which focuses on English, maths and science subjects at high schools and literacy and numeracy programmes at primary schools. The programme reflects a multi-stakeholder approach to improving education outcomes, impacting socio-economic development in the communities where it operates and enabling recruitment for business from members of its host communities.

Healthcare facilities

ISSA has also invested in the townships in the surrounding communities, providing four healthcare facilities. These facilities provide treatment for illnesses such as TB and COVID-19, along with additional services such as childhood immunization.

Figure 20: ISSA's healthcare services by number of people receiving treatment, 2020/21

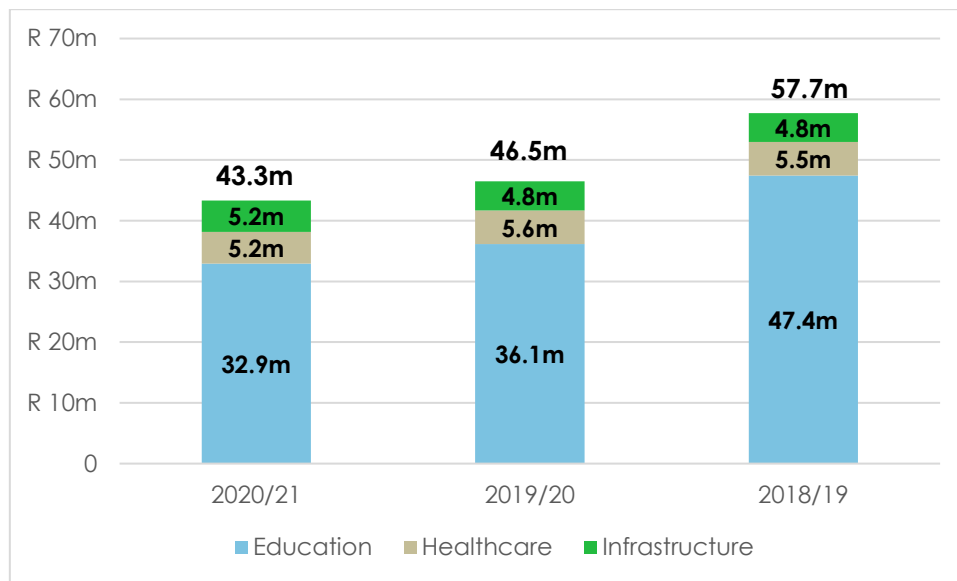


Inclusive stakeholder engagement

The company's communicative and collaborative relationship with the community extends to the local government officials. ISSA invests in the broader community beyond the estates, totalling R43.34m in 2020/21 and spread across education (R32.9m), healthcare (R5.2m) and infrastructure (R5.2m). This is a substantial 95% decrease from the R835m spent in 2016/17, which also included capacity building and other community spending not provided in 2020/21.

The 2020/21 investment is also a 25% decrease from 2018/19, driven largely by COVID-19, with decreases in spending on healthcare and education, while the spending on infrastructure increased. In the context of rising rural poverty, these investments provide essential support to the broader community and help ISSA to maintain positive stakeholder relationships.

Figure 21: Community investment in infrastructure, education and healthcare, 2018/19 - 2020/21



From our engagement with the district commissioner, we have learned ISSA has played a positive role in the community when disasters such as flooding have taken place. Volunteering initiatives support the community in food distribution and disaster relief projects.

"Volunteers from ISSA took part in food distribution projects and were able to deliver projects without a hitch, no bottlenecks, regardless of difficulties. There had been emergency evacuation meeting in March, after which there was a flood – ISSA staff joined in on a walkabout to assess damage and help rescue people with shelter & warm clothing"

- Premilla
District Commissioner

Our engagement indicated that while ISSA does play a positive role in the community, challenges still exist. In particular, increasing poverty levels and associated issues with crime are a challenge in the wider community. The district commissioner emphasised that multiple regions have been in "crisis management" due to multiple issues arising from flooding, high employment amongst young people, crime and looting. These issues interconnect with those of the growers discussed in the Sustainable Agriculture section, wherein the growing of sugar cane is becoming economically unviable for many. Interviews highlighted there are various ways in which ISSA could provide more support, including greater security infrastructure, funds for those in need and investment in climate-resilient infrastructure.

Challenges exist in determining ISSA's role in the broader community, especially due to its dependence on sourcing cane from surrounding areas. This can make it difficult to realise the full extent of its responsibilities when it comes to providing support, especially in determining where the company's responsibility ends, and the local government's responsibility begins. Greater engagement with stakeholders could help to clarify the company's roles and responsibilities within the wider community.

FUTURE FACING CHALLENGES

ISSA have the most diverse workforce in terms of gender when compared to the other countries where Illovo Sugar Africa operates. However, diversity remains a significant challenge to be addressed, especially in the permanent labour pool. While the company recognises that change is needed, continued efforts are required to improve workforce diversity.

Rising rural poverty, unemployment, climate-related weather events, crime and security issues are all challenges within the surrounding communities. While ISSA has already provided essential support, greater involvement is needed within wider communities to continue generating positive impact, which will in turn generate future value from thriving local societies.

ISSA's large presence in surrounding communities can make it difficult to realise the full extent of its responsibilities to support community needs. Its reliance on growers in rural areas susceptible to crime and in need of extra capacity building emphasises the need for ISSA to extend its responsibilities beyond its immediate operational vicinities. To meet this need, additional community investment would help regional development, which can be expedited through strategies such as governmental and additional NGO partnerships.

Recommendations

Recommendation 1

Evolved training programme to include growers

The decline in a reliable source of sugar cane due to severely adverse climate conditions and a declining labour market of growers has led to a decline in ISSA's sugar production volume. ISSA's financial dependency on the sugar cane value chain means the resilience and capability of South African growers are critical to the company's success. Given this premise, we have identified an opportunity for ISSA to simultaneously strengthen its financial position while improving its socio-economic impact by offering more training for growers. Our engagements revealed that this is a top priority for growers, who feel as though ISSA can support them in their efforts to keep growing cane in a climate where floods and droughts are making them increasingly vulnerable and reluctant to grow.

Recommendation 2

Investment in climate-resilient communities, agriculture and infrastructure

Increasingly volatile and irregular weather patterns such as extreme flooding, are only likely to continue. These events have started and will continue to impact agricultural productivity and livelihoods, potentially pushing growers to move towards other agricultural products. ISSA could benefit from further investment in climate-resilient agriculture and infrastructure to prevent some of the worst impacts of climate events on agricultural productivity and livelihoods. Importantly, this work can be done with regional partners (e.g., major NGOs and governments) as these are issues affecting multiple stakeholders.

Annex 1: Methodological note

Overview of methodology

Corporate Citizenship's process for this project involved analysing financial and management information provided by each Illovo Sugar Africa (ISA) country team. This also included site visits to Tanzania and Zambia, to visit the operations and their surrounding communities, as well as interview senior management and key stakeholders affected by the business. The stakeholders interviewed varied by country but included sugar cane farmers, small-holder association representatives, employees, local suppliers, doctors, community groups and other beneficiaries of ISA's social investment spend. Corporate Citizenship also conducted its own desk-based research and analysis. Case studies and quotes are based on site visits and interviews. The data presented within this report is based on internal financial and management information provided by key personnel within ISA and has not been audited by Corporate Citizenship.

Exchange rates used

Data for each country are reported in local currency, while the group report uses only the South African Rand (ZAR). We have used exchange rates provided by ISA's group finance for each year where conversion is required.

	ABF Budget Rates FY21	ABF Budget Rates FY20	ABF Budget Rates FY19	ABF Budget Rates FY17
<i>MWK / Rand</i>	47.87	59.2	61.44	51.05
<i>ZMW / Rand</i>	1.115	0.942	0.831	0.708
<i>TZS / Rand</i>	151.83	159.85	174.77	172.58
<i>MZN / Rand</i>	3.99	4.43	4.79	4.86
<i>Rand / USD</i>	16.16	15.36	13.01	7.82

Estimating wider impacts

ISA has significant impacts on the economy and employment, not only through its direct operations but also through its value chain and the wider community. Its total impact falls under the following main categories¹⁵:

¹⁵ Note that in each case, "impact" refers to ISA's gross rather than net impact, and therefore does not take into account displacement (i.e., labour, land and capital are used by ISA which would otherwise have been used by other companies) or leakage (i.e. some indirect and induced spending will "leak" overseas). While both of these effects are important, they are not readily quantified, and are not usually included in impact assessments of this nature.

- **Direct** impacts, through ISA's direct employment of workers on farms and in factories, as well as investments, tax payments, interest spending, shareholder dividends and other payments;
- **Indirect** impacts in the value chain in Africa, through purchasing sugar cane from farmers, payments to suppliers and distributors, as well as impacts on those selling ISA products or using them in their businesses. Re-spending of the money paid by ISA generates further economic activity and employment;
- **Induced** impacts, through spending by direct and indirect employees leading to increased consumption and employment throughout the economy;
- **Secondary** effects, through infrastructure and other benefits provided by ISA to its local communities, such as building infrastructure, schooling and healthcare.

The scale and extent of these impacts mean that they can only be estimated. As far as possible, Corporate Citizenship has collected data directly from ISA, including specific information on local employment and spending with local suppliers. Secondary effects have been described qualitatively but have not been estimated, due to the large number of assumptions required.

Impact measurement

To estimate ISA's full macroeconomic impacts in each country, Corporate Citizenship conducted a thorough landscape review to identify new research and studies conducted since our last assessment. This was to gather information from various academic studies into the economic impacts of the sugar industry in southern Africa, including "multipliers" which estimate, for example, the amount of indirect and induced employment created per direct employee in the sugar industry.

The various multipliers referred to in this report are outlined below. While multipliers are useful tools, it should be stressed that their reliability depends heavily on the quality of the data available. They may also be context-specific, varying across countries and even within an industry in a specific country.¹⁶ The studies published to date on multipliers in southern Africa have not covered every country considered in this report, and so some assumptions have had to be made regarding the other countries in which ISA operates.

In all cases, a range of multipliers from different sources has been used to inform calculations, in line with the recommendations of the International Finance Corporation.¹⁷

The range of studies referred to is as follows:

- Conningarth Economists (2013), 'Growing the Sugar Industry in South Africa', *National Agricultural Marketing Council*.
- Department of Agriculture, Forestry and Fisheries (South Africa) (2011), 'A Profile of The South African Sugar Market Value Chain'.
- Hess et al. (2016), 'A sweet deal? Sugar cane, water and agricultural transformation in Sub-Saharan Africa'.
- Imani-Capricorn (2001), *The Socio-Economic Contribution Of The South African Sugar Industry: A report prepared for the South African Sugar Association*.

¹⁶ [IFC \(2013\), IFC Jobs Study: Assessing Private Sector Contributions to Job Creation and Poverty Reduction](#)

¹⁷ [ibid.](#)

- Chikuba, Z. et al. (2013) 'A 2007 Social Accounting Matrix (SAM) for Zambia', *Zambia Institute for Policy Analysis and Research (ZIPAR)*.
- Cruz A. S. et al. (2018) 'A 2015 Social Accounting Matrix (SAM) for Mozambique', *WIDER Working Paper 2018/20*.
- Kaliba, A. R et al. (2008), 'Economic multipliers for Tanzania: implications on developing poverty reduction programs', *Global Trade Analysis Project (GTAP)*.
- Lea and Hanmer (2009), 'Constraints to Growth in Malawi', *The World Bank (Southern Africa Poverty Reduction and Economic Management Unit)*.
- Levin and Mhamba (2007), 'Economic growth, sectoral linkages and poverty reduction in Tanzania', *World Bank*.
- McCarthy and Owusu-Ampomah (2007), 'Study to assess the impact of sugar mills on the surrounding communities as well as the impact of the South African Sugar Association's social spend (Part 1: The Broader Socio-Economic Impacts Of The SA Sugar Industry – An Overview)'
- National Department of Agriculture (South Africa) (2006), *Commodity Profile: Sugar*.
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Impacts on GDP

The main method of estimating economic multipliers is by using macro- and micro-economic data and technical procedures to create a Social Accounting Matrix (SAM). We have identified three main studies which have applied this method to the sugar industry in southern Africa, described below:

- Conningarth Economists (2013) used a SAM-based model for South Africa in 2010, estimating the sugar industry's direct impact on South African GDP at R2,191 million, its indirect impact at R1,316 million and its induced impact at R2,287 million. This implies an indirect multiplier of 0.60 and an induced multiplier of 1.04 giving an overall multiplier (including direct, indirect and induced impacts) of 2.64.
- Kaliba et al. (2008) created a 2004 SAM for Tanzania in order to estimate economic multipliers for a number of sectors. The study found that agro-processing industries had the highest economic multipliers (greater than 3), while sectors with the lowest multipliers (at or close to 1) included export-oriented agricultural sectors, such as coffee, cotton, tobacco and cashew nuts. The multiplier estimated for sugar cane growing is 1.51 (including an indirect multiplier of 0.22 and an induced multiplier of 0.29), while the multiplier for the processed food sector is 3.10 (indirect 0.88, induced 1.22). The overall multiplier for the sugar industry as a whole is therefore assumed to be somewhere between the two.

- Phoofolo (2018) built upon a SAM for South Africa conducted in 2014, a more recent model than that of Conningarth Economists. His study quantified the economic impact of the disaggregated agricultural sector within the South African economy using this SAM multiplier model, calculating a combined indirect and induced impact for financial stimulation in both the sugar crops (cane, beet, beet seeds etc.) and refined sugar sectors. These were 1.61 and 1.2 respectively, so when an average is taken between the two and aggregated with direct impact, the overall multiplier across both sectors is assumed to be around 2.4.
- Mulanda (2020) conducted a SAM-based multiplier analysis for Zambia, providing country-specific data not available for the previous impact assessment. His analysis produced a combined indirect and induced impact for the Zambian sugar cane sector of 1.4, making the overall multiplier (including direct impact), 2.4.

These multipliers, since they are based on the sugar industry on the whole, only account for forwards and backwards linkages with other industries, and so do not account for the multiplier effects of ISA's purchases of sugar cane from growers. In our reports, grower spending is therefore accounted for before the multipliers are applied.

The following table outlines the economic multipliers used in this report. These have been based conservatively on the findings of the studies outlined above. Looking at the most recent studies (2018, 2020), the average overall multiplier in the sugar sector is 2.4. Additionally, since the 2001 study by Imani-Capricorn referenced in the 2016/17 impact assessment, there has been a slightly decreasing trend in the induced multiplier across the countries analysed. We have therefore made a slight adjustment to the 2020/21 induced multiplier, reducing it by 0.1, bringing the overall multiplier to 2.4.

Direct multiplier	+	Indirect multiplier	+	Induced multiplier	=	Overall multiplier
1		0.6		0.8		2.4

While reliable studies for Malawi, Mozambique, or Eswatini are not available, the multipliers for these countries can be assumed to be roughly similar, but dependent on the proportion of domestic versus international procurement and sales in each country. Given that international procurement is often primarily in South Africa and other neighbouring countries, multipliers have not been adjusted. However, some leakage may not be accounted for.

Impacts on employment

As noted above, the sugar industry is relatively labour-intensive and creates significant opportunities for smallholder farmers, meaning that it has high employment multipliers.

Levin and Mhamba (2007) use economic modelling in order to estimate the impact on employment and poverty of various industries in Tanzania. They find that overall, agriculture has the largest impact on employment of all sectors. Within the agricultural sector, sugar has the third-highest total employment multiplier, after cashew nuts and fishing. However, sugar also has the highest impact in terms of "pro-poor" (poverty-reducing) employment, and is also found to have one of the highest impacts of all industries on female employment.

We conducted additional desk-based research to identify any studies academia published after 2017 to supplement our analysis of employment multipliers in southern Africa. Several studies have estimated indirect and induced employment for the sugar industry, again mainly in South Africa, including an additional 2020 study. These are described below:

- Imani-Capricorn (2001) estimated direct employment in sugar cane farming, milling, refining and support institutions at 136,671, and indirect employment in upstream and downstream industries at 118,000 (using 2000 figures from the Board on Tariffs and Trade). This implies an indirect employment multiplier of 0.86.
- Conningarth Economists (2013) offer two alternative sets of figures:
 - Their own SAM-based model gives direct employment (including small- and large-scale farms; mills; and industry support organisations) of 93,990, indirect employment of 7,356 and induced employment of 11,663, giving an indirect employment multiplier of 0.08 and induced of 0.12 (giving a combined multiplier of 0.2).
 - Meanwhile, figures provided by the South African sugar industry put direct employment at 106,796 and indirect/induced employment at 21,915, giving a similar combined indirect/induced multiplier of 0.21.
 - The difference between these two sets of multipliers is due to the assumptions used to estimate farm employment. The industry used a figure of 0.23 jobs per hectare under cane, whereas Conningarth Economists assumed a more conservative figure of 0.17 per hectare.
- Kavese & Phiri (2020) offered a revised set of figures for the agricultural sector in South Africa as a whole, estimating the indirect multiplier to be 1.119 and the induced 0.345. While their analysis gave a regional breakdown of different employment multipliers, including KwaZulu-Natal, they were not specified to be agriculture and have not been considered.
- South Africa's National Department of Agriculture (2006) estimates that the sugar industry directly employs 85,000 people and indirectly employs a further 265,000, implying an indirect employment multiplier of about 3.12. The total figure of 350,000 jobs has been widely quoted, including in subsequent reports by the South African Sugar Association and Department of Agriculture, Forestry and Fisheries, as well as by McCarthy and Owusu-Ampomah (2007), Conningarth Economists (2013) and Hess et al. (2016). However, the methodology used to arrive at the figure is not made clear. McCarthy and Owusu-Ampomah (2007) state that it was calculated using the Imani-Capricorn (2001) GDP multiplier of 3.2, rather than an employment multiplier. It has therefore not been used in this report.

After reviewing the studies gathered from both our 2017 and 2021 reports, we noted that there was little change overall to employment multipliers in the southern African sugar sector. Our reports, therefore, continue to use the Conningarth Economists' (2013) SAM-based multipliers in order to give a conservative estimate of indirect and induced employment. As with the economic multipliers, these have been applied to ISA's own employment in each country, plus estimates of employment through growers.

Direct multiplier	+	Indirect multiplier	+	Induced multiplier	=	Overall multiplier
1		0.2		0.86		2.06

Impacts on dependents

The sugar industry's impact on livelihoods does not end with those whom it employs. The poor, rural areas in which the sugar industry is primarily based means that there is a significant impact on workers' dependents (i.e., immediate and extended family).

The following table shows data on average household sizes, taken from the national statistics of each country. Where possible, figures are for the region(s) in which ISA operates. In the case of Eswatini, no national data sources are available, so a figure has been taken from the World Health Organisation.

Country	Region	Average household size ¹⁸
Malawi	Rural	4.3
Mozambique	Maputo City	4.4
South Africa	KwaZulu-Natal	3.3
Eswatini	National average	4.7
Tanzania	Morogoro Region	4.9
Zambia	Southern Province	5.1

¹⁸ Sources for each country can be found in the corresponding country report.