Illovo Sugar Africa (Pty) Ltd

Illovo Sugar (Malawi) plc's social, economic & environmental impact assessment

FY2020/2021

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Introduction

Illovo Sugar Africa (Pty) Ltd (Illovo Sugar Africa), a wholly owned subsidiary of Associated British Foods plc, is 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 44,000 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.

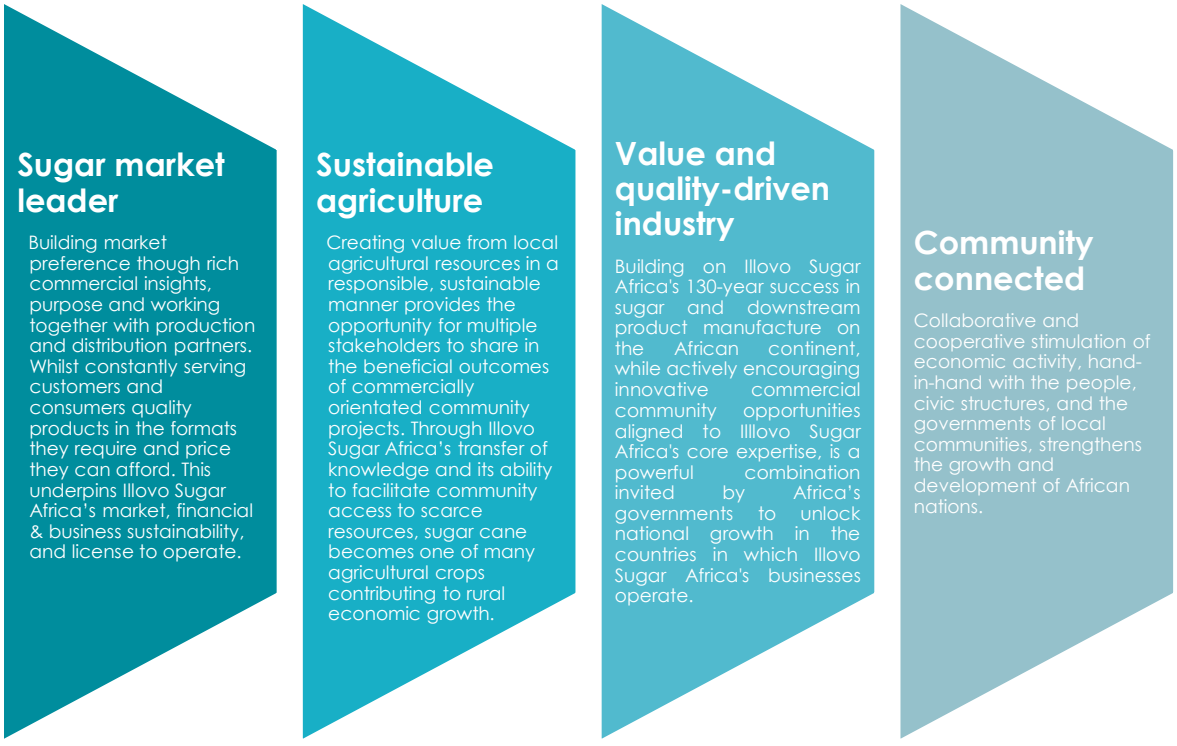
About this report

> "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

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 in its communities and use the insights to enhance the value it brings and achieve its self-identified company purpose to create thriving communities.

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 (Malawi') plc'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 Malawi

Illovo Sugar (Malawi) plc (Illovo Malawi) is one of two sugar producers operating in the country. The company supplies nearly 70% of its total sugar sales to domestic consumers and industrial markets, with the balance exported within Africa and additionally in the EU and USA markets. Illovo Malawi is listed on the Malawi Stock Exchange.

Illovo Malawi fortifies direct consumption of brown sugar with Vitamin A to help support the elimination of micronutrient deficiency, particularly in children under five years old.

While Illovo Malawi's corporate offices are based in Limbe, its two sugar estates are in Dwangwa and Nchalo, producing sugar cane, as well as raw, brown, and refined sugar, together with speciality sugars especially at Nchalo. The company annually cultivates around 2 million tonnes of cane which together with approximately 544,000 tonnes produced by Malawian small-scale growers, results in the production of about 280,000 tonnes of sugar.

Malawi remains one of the poorest countries in the world despite making significant economic and structural reforms to promote growth. The economy is heavily reliant on agriculture, employing 76% percent of the population. This makes the economy and its people particularly vulnerable to climate shocks such as extreme flooding and droughts which have been experienced in recent years.

Table 1: Malawi demographic data

Malawi country data[1]	
Economic indicators	
Gross domestic product (GDP) at purchasing power parity (PPP)[2] (2021)	$12.63bn
GDP per capita (2021)	$642.7
Annual GDP growth rate (2021)	2.8%
Labour market indicators	
Population (2021)	19.6m
Labour force (2021)	8.5m
By occupation (2019)	Agriculture 76.0% Industry 6.0% Services 18.0%
Population location (2021)	Rural 82.0% Urban 18.0%
Unemployment rate (2021)	7.0%
Poverty Indicators	
Population living below $2.15 per day (2019)	70.1%
Population living below national poverty line (2019)	50.7%
Adult literacy rate (2015)	62.0%
Life expectancy at birth (2020)	65 years

[1] World Bank Open Data
[2] Eurostat The purchasing power parity is the exchange rate that removes price level differences between countries.

Summary of findings

Illovo Malawi continues to be a significant contributor to Malawi's economy. It has increased sugar production which has helped to meet growing domestic demand and the business has continued to grow despite external challenges such as flooding and 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 Malawi's rural communities. Illovo Malawi is also driving sustainable agricultural practices within its own operations and grower communities, which is a priority given the climate-related risks facing the country.

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, Illovo Malawi's quantitative social, economic and environmental impacts in Malawi included the following:	
Sugar market leader	• 280k tonnes of sugar produced with 58% of sales tonnes sold into the domestic market • Total economic impact estimated at K202.8Bn, including K65.9Bn direct impact (gross value added) and the remainder in indirect & induced impact through multiplier effects in the supply chain and wider economy • K5.9Bn direct tax contribution and K10.9Bn indirect tax contribution (collected on behalf of the government) • 19,809 directly employed including 5,799 permanent and 14,010 non-permanent roles. Through direct jobs only, Illovo Malawi contributes to supporting an estimated 104,994 livelihoods once families and dependents are considered (based on an average household size of 4.3) • Estimated total employment impact of 34,070, including direct, indirect, and induced employment supported in grower communities and the wider economy
Sustainable agriculture	• 19,326 ha of Illovo Malawi-owned cropland, which produced 1,866,627 tonnes of sugar cane • 7,916 ha of grower cropland, working with 8,583 independent growers who supplied 543,902 tonnes of sugar cane (23% of Illovo Malawi's total sugar cane throughput) • 6,112 growers reached via development programmes
Value and quality-driven industry	• 96% of energy production from renewable sources • 17% increase in scope 1 & 2 emissions (2019/20 - 2020/21) • 68 607 MWh of renewable energy generated • K56.1m invested in safety training and a Lost Time Accident Frequency rate of 0.06 • K333.0m invested in training, with 2,993 employees trained • K140.8Bn spent on procurement with K122.5Bn (87%) going to local suppliers
Community connected	• K1.7Bn spent on the community, with K499.2m spent on education, healthcare, and infrastructure projects. • 8,126 employees and dependents received COVID-19 vaccines • 7% women in Illovo Malawi's workforce with 12% in the management level • 25,000 patients treated every month for basic healthcare needs

Sugar market leader

Building market preference though 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:

Illovo Malawi continues to make an important contribution to Malawi's economy. Despite external challenges such as flooding and the pandemic, the company's steady production growth and financial performance have supported economic and employment opportunities for many within the value chain, particularly supporting Malawi's rural communities. Both total economic impact and employment impacts have risen substantially compared to our last assessment. Since 2016/17, total employment impacts have more than doubled, largely driven by the increase in hiring seasonal non-permanent employees as well as a six-fold increase in indirect employment through growers.

280k
tonnes of sugar produced

K65.9Bn
Illovo Malawi's direct economic impact

K202.8Bn
Illovo Malawi's total economic impact

K16.8Bn
total tax contribution

19,809
people directly employed

34,070
total employment impact

K4.5bn
spent on capex

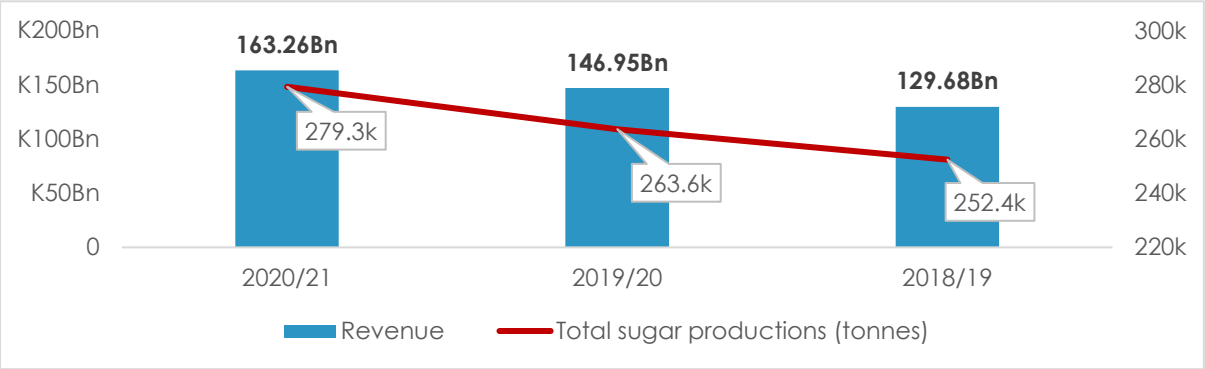
Note: *Definitions for direct economic impact, indirect economic impact, induced impact, total impact, and employment impact are provided on pgs. 8-9 and 11.*

Meeting demand & beyond

Illovo Malawi remains the main sugar producer in the country, despite new competitors entering the market. It consequently plays a key role in meeting regional and domestic demand for sugar, something that the company has actively made a strategic priority over the last few years. This pivotal role was further highlighted in May 2022 when Illovo Malawi proactively responded to a government mandate and ensured all its sugar supplies were

directed to the domestic market after Cyclone Ana caused major delays during the sugar-making season.[3]

Figure 2: Illovo Malawi sales and production volume, 2018/19 - 2020/21



Our analysis shows that Illovo Malawi's production and revenues have steadily increased since 2018/19, despite severe challenges such as the COVID-19 pandemic, rising costs and flooding from climate-related extreme weather. The company's stable financial position enables it to continue to provide economic opportunities for thousands of employees, growers, and other stakeholders in its value chain.

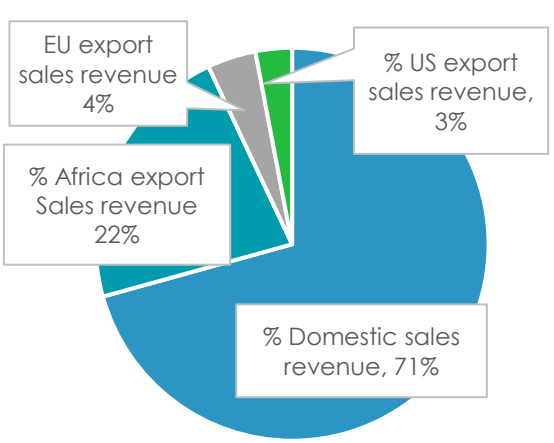
Sales by segment

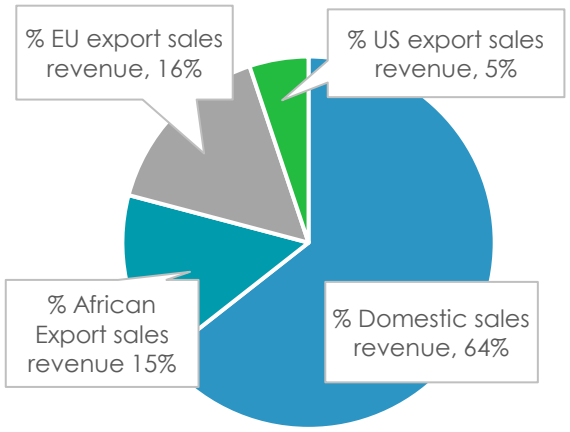
Illovo Malawi has continued to focus on selling sugar in Malawi and to other African markets – a strategic move to meet rising domestic and regional demand and to ensure that Malawians have access to sugar as a food staple. In 2020/21, 71% of sales revenue was in the domestic market to consumers and industrial customers, with other African markets accounting for an additional 22% of sales. This compares to 64% and 15% in 2016/17 respectively and a decline in exports to the EU & US markets.

Figure 3: Illovo Malawi's sales revenue by market segment 2016/17 and 2020/21

2020/21 **2016/17**

[3] Nzangaya, A. (2022), *Govt bans Illovo from exporting sugar*





Product affordability

Ensuring affordability alongside the availability of sugar is important in a market such as Malawi, where household incomes are low. Illovo Malawi prices its sugar strategically to ensure that it is available to households across geographic locations and income levels. To ensure accessibility, Illovo Malawi regularly reviews its route to market to analyse how to increase penetration into less populated as well as impoverished areas. For example, to make sugar more affordable for low-income households, Illovo Malawi introduced a smaller lower-priced 90g pack size.

Illovo Malawi also fortifies all sugar for domestic consumption with Vitamin A in support of the government's programme to eliminate micronutrient malnutrition, particularly in children.

Economic contributions

As the biggest sugar producer in Malawi, Illovo Malawi makes a significant contribution to the country's economy. This is particularly important for Malawi's rural development where widespread poverty and inequality remain key issues. Sugar cane growing and production is relatively labour-intensive compared to other crops and there are many small-scale growers in the value chain, which causes significant economic multiplier effects. The majority of the effects are felt by the rural populations, who grow and harvest the sugar cane, as well as the supporting industries that supply to Illovo Malawi and small local businesses that have grown around the sugar estates (e.g. transportation, harvesting, retail). The three main areas of impact are:

1. **Direct impacts**, through Illovo Malawi'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;

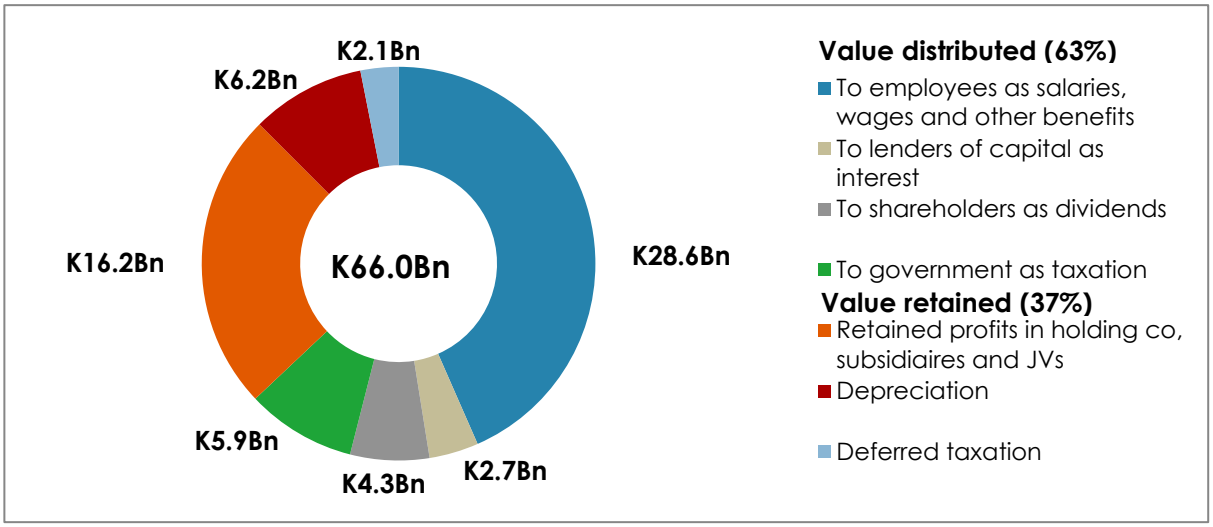
3. **Induced impacts**, through spending by direct and indirect employees, leading to increased consumption and employment elsewhere in the economy. This also includes the employment and additional service providers operating on grower farms, which

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

Illovo Malawi's direct contribution to the economy of Malawi, measured in terms of gross value added, was K66.0Bn 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. 63% was distributed to stakeholders – including employees, shareholders, and the government. The largest part of this relates to salaries, wages and benefits paid to employees.

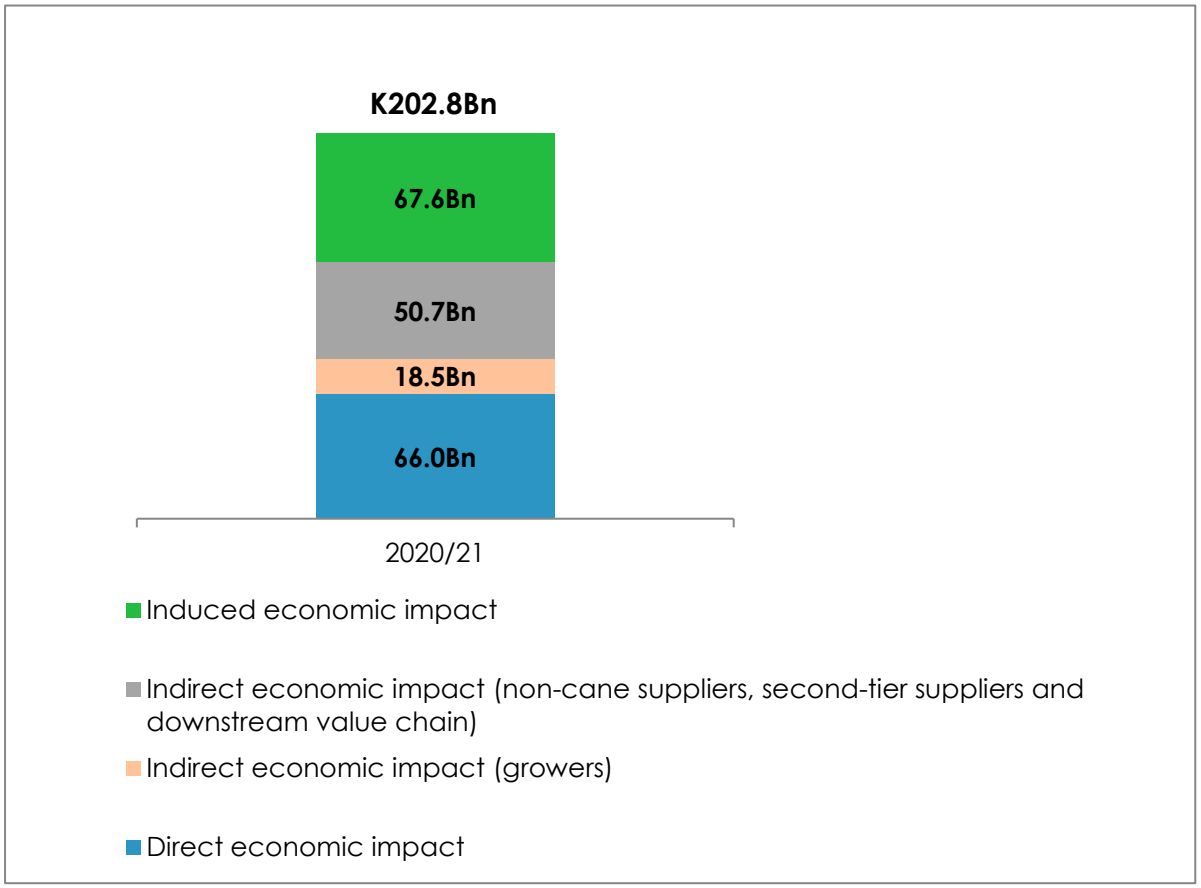
Figure 4: Illovo Malawi's direct economic impact, 2020/21 (distribution of gross value added)



Total economic impact

Illovo Malawi's total economic impact – including direct, indirect, and induced impacts – is estimated at K202.8Bn for 2020/21.

Figure 5: Illovo Malawi's total economic impacts in Malawi (estimated), 2020/21



This K202.8Bn total economic impact, when converted to ZAR for comparison to our previous report, comes to R4.24Bn, a **188% increase** on the R2.26Bn total impact reported in 2017.[4]

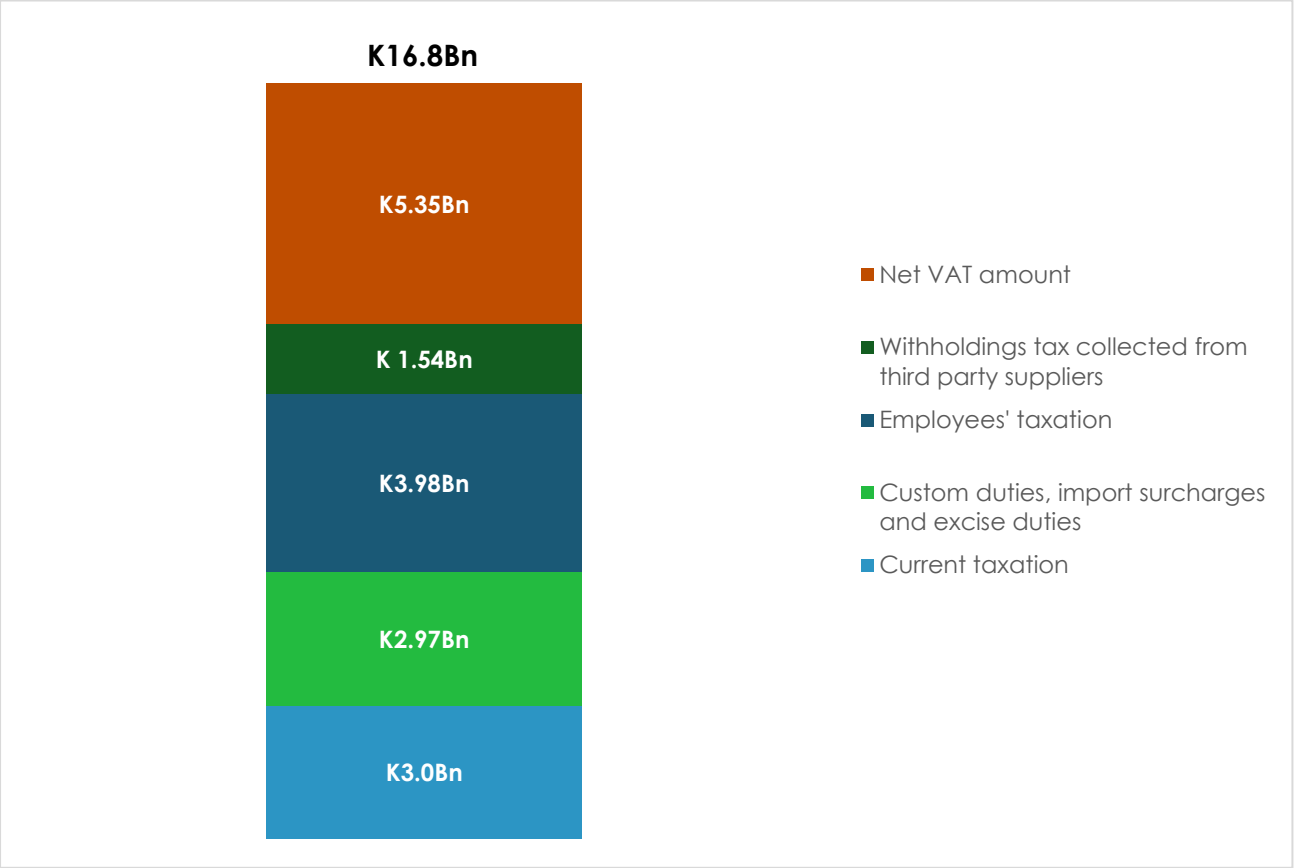
Tax contributions

As the largest cane sugar producer in Malawi, Illovo Malawi is an important contributor to the tax revenues of Malawi and the regions it operates in, the Central Region and the Southern Region. In 2020/21, Illovo Malawi's direct tax payments amounted to K5.9Bn, while indirect taxes totalled K10.9Bn.

Indirect taxation which is collected on behalf of the government includes employee tax, withholdings tax, VAT and import tax. The total represents a 125% increase in the total tax payments over the last four years in line with growing revenues and profits.

[4] Corporate Citizenship (2017), *Illovo Sugar (Malawi) plc Socio-Economic Impact Assessment*

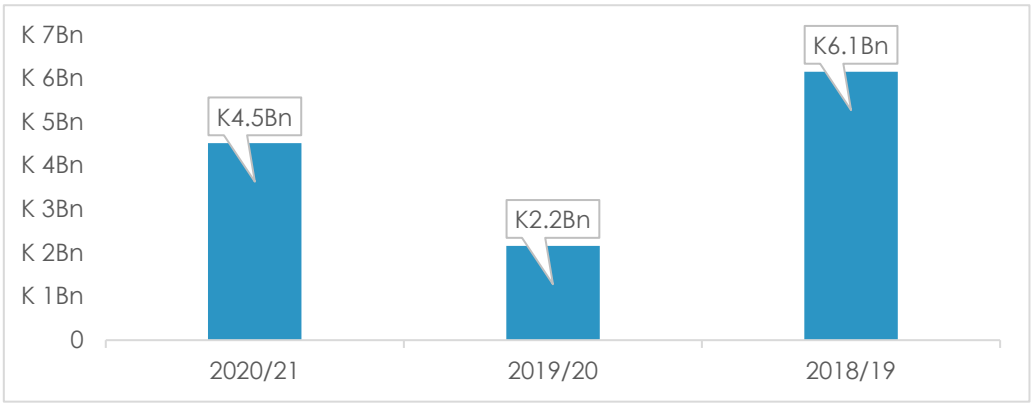
Figure 6: Illovo Malawi's tax payments, 2020/21



Capital expenditure

Since the last assessment, Illovo Malawi has spent over K12.8Bn on capital investments. One of the largest of these expenditures was a sustainable, water efficient drip irrigation project. Illovo Malawi also invested smaller amounts to keep business operations reliable and efficient, as well as in the diversification of its product offering.

Figure 7: Illovo Malawi's capital expenditure, 2018/19 – 2020/21

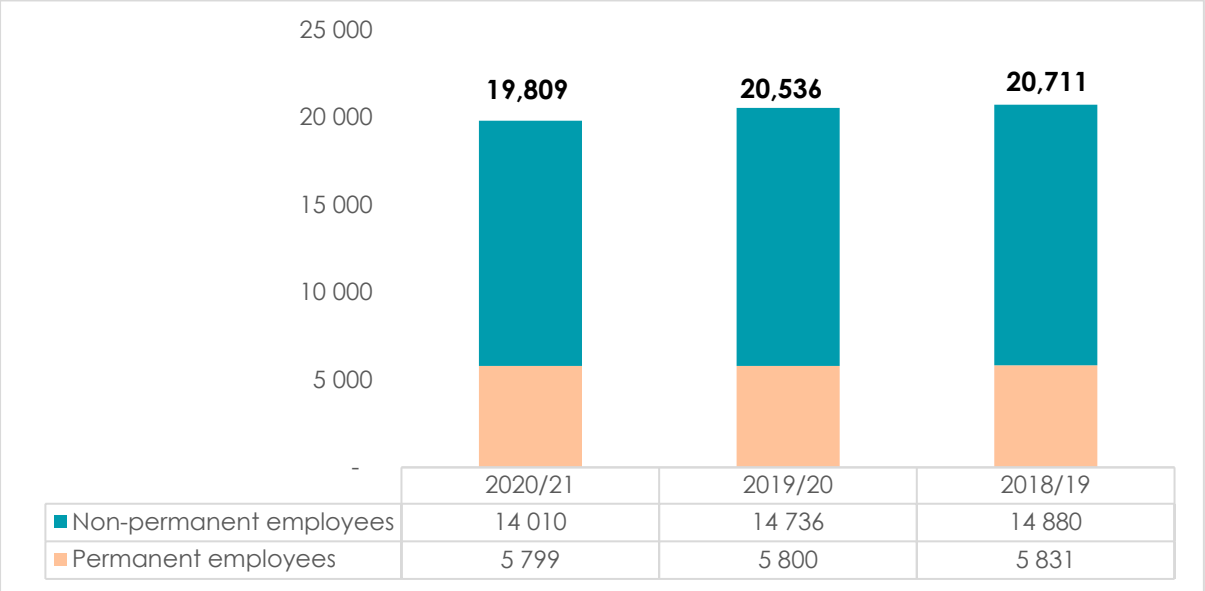


Employment

Illovo Malawi continues to be one of the biggest employers in the country – providing an important source of direct and indirect jobs. Since our last assessment, the steady growth in

Illovo Malawi's sugar production has also supported an increase in its employment impact – particularly driving growth in seasonal and contract work. Illovo Malawi plays a key role in tripartite discussions between the government, trade unions and employers. As a result of these discussions, government employment policy has been influenced and changed. For example, Illovo Malawi played a large role in developing policy frameworks for both working compensation and ease of transfer-of skills for immigrants.

Figure 8: Illovo Malawi direct employment, 2020/21



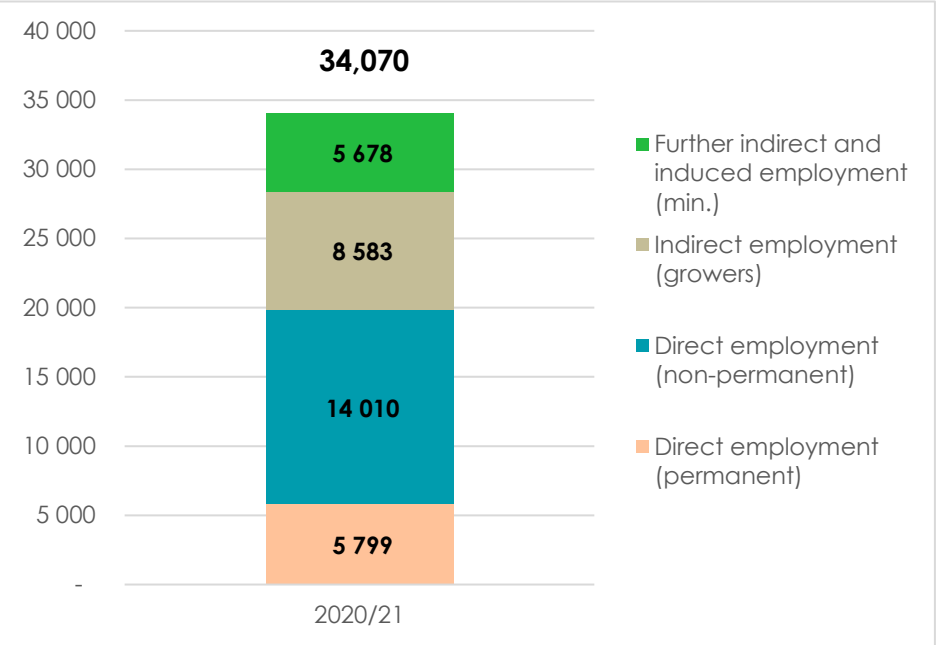
	2020/21	2019/20	2018/19
Non-permanent employees	14 010	14 736	14 880
Permanent employees	5 799	5 800	5 831

In 2020/21, Illovo Malawi directly employed 5,799 permanent employees and 14,010 non-permanent/seasonal employees at peak periods. Since our last assessment, permanent employee numbers have remained broadly stable, while there has been a significant rise in non-permanent employees up by over 10,000 compared to 2016/17. There are several drivers to explain this rise, mainly increases in pests and diseases, changes in weather patterns, soil management concerns and the growing production of cane. Seasonal workers are hired to manage these drivers with activities ranging from weed control to irrigation management.

In addition to direct employees and supporting employment for growers, Illovo Malawi also contributes to indirect and induced employment in Malawi. A large part of this indirect employment consists of the cane cutters that Illovo Malawi hires through contractors. We estimate Illovo Malawi is supporting the employment of at least 34,070 people in total in Malawi, based on a conservative multiplier for the sugar industry. This means that for every direct employee of Illovo Malawi, at least 0.7 other workers are supported through grower communities and in the wider economy.

Since 2016/17, total employment impacts have more than doubled, largely driven by the increase in hiring non-permanent employees as well as an increase in employment through growers.

Figure 9: Illovo Malawi's total employment impacts in Malawi (estimated), 2020/21



We estimate these direct jobs provided by Illovo Malawi contribute to supporting the livelihoods of 104,994 people once families and dependents are considered. This is based on an average household size of 4.3 in Malawi.[5] Illovo Malawi's level of support will vary between households – for some, such as direct employees and growers, Illovo Malawi may well be the main contributor to household income, while in others Illovo Malawi's support will be a factor among many.

FUTURE FACING CHALLENGES

Looking ahead, Illovo Malawi faces external risks that have the potential to affect business performance – these include competition on cane prices from new player entering the market, rising production costs and the devaluation of the Kwacha. Given the strong financial health of the company, it is important the business continues to invest in strategic priorities despite tougher operating conditions. Continuing to focus on investment in training for its own employees as well as supporting growers to be more financially and environmentally sustainable will ultimately secure the long-term sustainability of Illovo Malawi's own business.

One area that will require attention, is the significant increase in non-permanent employees (seasonal and contract workers) hired in response to the issues outlined in the employment section above. While this employment is necessary to deal with such issues, this hiring too has associated challenges, e.g., poor working conditions and social issues arising from migrant labour. Illovo Malawi must proactively address these not only to continue handling increased production in the face of pressures such as changing weather and pests, but to maintain its position as a leading best practice employer.

[5] World Bank (2018), *Climate-Smart Agriculture in Malawi*

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:
Illovo Malawi develops and promotes best practices in sustainable farming techniques, on its own cropland and in collaboration with its growers. In particular, a shift to green cane harvesting, sustainable farming systems through crop rotation, fallowing with green manuring and improvements in irrigation are underway. The company also provides market stability for growers to sustain sugar production and cultivate dependable livelihoods.

Further shifts to more environmentally sustainable methods such as mechanised green-cane harvesting are on the longer-term horizon for both Illovo Malawi's own and grower operations, posing financial challenges and employment-loss risks for green-cane harvesting if implemented suddenly. However, Illovo Malawi is conscious of this risk and the need to mitigate it through careful planning.

Growers surrounding the estate have benefitted from their work with Illovo Malawi, with most functioning as cooperatives and grower associations. However, they face ongoing challenges, as growers struggle with issues such as unpredictable weather conditions and flooding presenting financial debt, consistent payments, and challenges in governance structures.

A further challenge is the unpredictability of weather patterns, with increasing floods, cyclones, and other weather events risking agricultural productivity and livelihoods. Investment in climate-resilient infrastructure could help mitigate the risks of these events for both Illovo Malawi and its growers.

19 326,40 ha
of Illovo Malawi-owned cropland

7,916 ha
of grower cropland

4,293
independent growers in the supply chain

1,866,627 tonnes
sugar cane output (Illovo Malawi-owned)

543,902 tonnes sugar cane output (growers)

6,112 growers
reached via development programmes

Illovo Malawi's agricultural practices

Illovo Malawi has influence not only over the practices of the land it manages but also over the growers whom they work with. Many of the potential environmental and social impacts

from sugar cane farming relate to land-use change from the conversion of land which may otherwise be used for other purposes, such as subsistence farming, or biodiverse wild habitats. For this reason, much of Illovo Sugar Africa's overall approach to improving farming sustainability is to focus on increasing vertical growth through the implementation of best management farming practices to achieve higher yields per hectare of existing cropland, held both by Illovo Sugar Africa and growers. This drives the positive social and economic impacts of sugar cane production while minimising additional environmental impacts from expanding land conversion.

Environmental management

Illovo Malawi is now using the Farm Sustainability Assessment (FSA) system to manage its agricultural practices sustainably, which has replaced the use of the previous SUSFARMS® management system for its Dwangwa operations. The FSA is part of the Sustainable Agriculture Initiative Platform (SAI Platform) which is a global non-profit network and one of the primary global food and drink value-chain initiatives for sustainable agriculture, developing sustainable agriculture solutions through member-driven pre-competitive collaboration. Its solution, the FSA, enables businesses to assess, improve, and validate on-farm sustainability. In addition to this, the company has a separate environmental policy covering multiple elements to reduce its impacts on the environment, including risk management, air quality, water quality and other areas.

Water use and crop irrigation

Around 20% of the land area of Malawi is covered by water (primarily Lake Malawi).[6] However, declining lake and river water levels, combined with unpredictable weather patterns and the increasing frequency of droughts and floods, have impacted agricultural productivity in the country. Climate change is likely to worsen these impacts, with research identifying Malawi's agricultural sector as highly vulnerable to climate change. While over 90% of Malawi's overall agricultural production is rain-fed, 100% of Illovo Malawi's cropland is irrigated by various methods, making water security a prominent issue in light of future climate concerns.[6]

To improve its water resilience, Illovo Malawi has a target to reduce its end-to-end supply chain water footprint by 30% by 2030, from a 2018 base year. As part of achieving this target, the company is in the process of converting existing irrigation systems to more efficient technologies. Figure 10 below outlines the different types of irrigation currently in use. Illovo Malawi has plans to convert 4,700 hectares of land to drip irrigation over ten years. The first 2,200 hectares of drip irrigation started in 2017 and will conclude in the seed cane season in 2022. The remaining 2,500 hectares of conversion are planned to take place from 2023 to 2028.

To further increase water efficiency in crop irrigation, Illovo Malawi is delivering a new drip irrigation system. Interviewees from Illovo Malawi's agriculture team stated that these improvements will lead to:

- 40% reduction in energy usage
- 25% increase in in-field water application efficiency
- 55% reduction in the amount of water required to produce each tonne of sugar cane

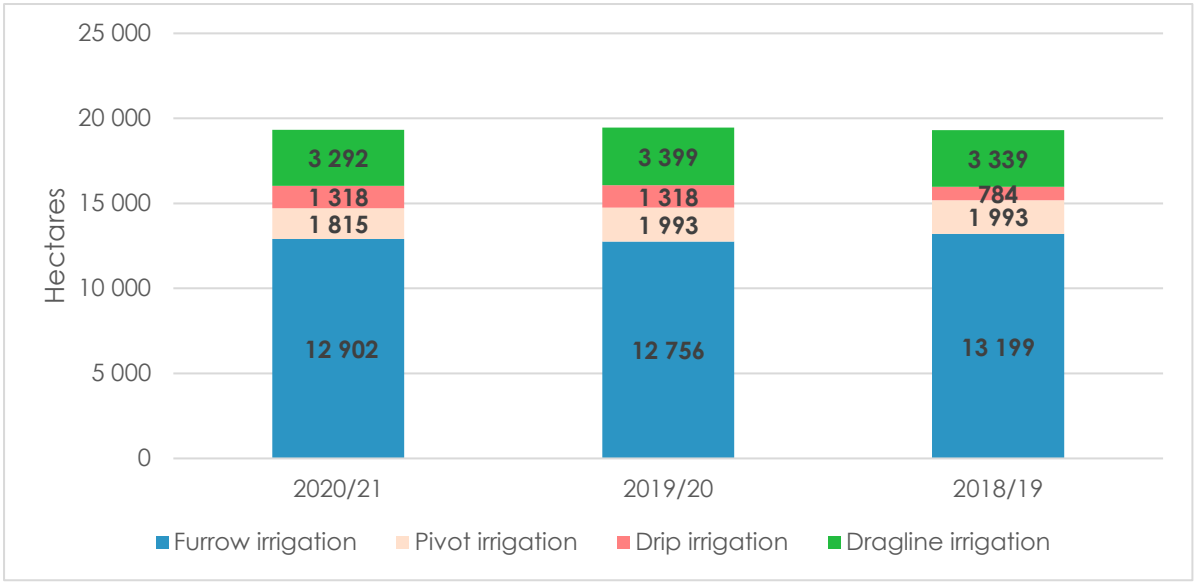
Illovo Malawi is also partnering with the Government of Malawi and funders of the Shire Valley Transformation Project (SVTP), a 14-year initiative (2018-2031), to increase irrigation in the Shire Valley. The SVTP is being implemented by the Government of Malawi with funding from the World Bank, the African Development Bank and the Global Environment Facility (GEF). The project will develop irrigation canals to transport water to 43,370 hectares of land in the valley after it is abstracted from the Shire River at Kapichira dam. 9,995 hectares of Illovo Malawi's Nchalo Estate will benefit from access to this canal irrigation, while one of the company's key

[6] World Bank (2018), *Climate-Smart Agriculture in Malawi*

growers, Kasinthula, will also benefit from 1,429 hectares with access to the irrigation channels.[7] Illovo Malawi is financially supporting the ongoing development of the SVTP as the project's anchor tenant.

These ambitious plans will, if successful, help to reduce the quantity of water needed for sugar cane production, thereby reducing vulnerability to the impacts of climate change. Additionally, the SVTP project will distribute water to Illovo Malawi and its growers' cropland flowing downhill using the power of gravity, which will reduce the company's reliance on more energy-intensive forms of uphill irrigation systems, lifting water from river sources. This in turn will reduce Illovo Malawi's energy consumption and enable more of the country's grid electricity to be consumed elsewhere.

Figure 10: Illovo Malawi-owned cropland under different irrigation methods, 2018/19 – 2020/21



[7] SVTP (2022), *About the SVTP*

Table 3: Comparison between different irrigation methods

	Definition	Benefits	Limitations
Furrow irrigation[8]	Establish long surface trenches, making use of gravity to let water run down between crops on the ground	• Low-cost, low-tech method • Well suited to broad-acre row crops such as sugar cane	• Risk of evaporation losses • Can distribute water unevenly across row crops • Can be labour-intensive
Pivot irrigation[9]	Movable pipe structure rotating around a centre pivot, with water dripping from the top of the cane to the roots	• High efficiency • High uniformity • Ability to irrigate uneven terrain • Low capital, maintenance, and management costs	• Risk of evaporation losses • Can achieve uneven application of water to crops • Wind interference
Sprinkler irrigation[10][11]	Distribution of water through the pipe system, spraying the water into the air through sprinklers	• Easy to set up • Water efficient • Less land loss • High and frequent application • Automation	• Risk of evaporation losses • High operating costs • Wind interference
Drip irrigation[12]	Development of pipe system, running along with the soil to apply water on the roots of the crops	• No evaporation, highly efficient • Directs water and nutrients to plant root system • Precise and controlled application possible • Soil erosion and weed growth are reduced • No labour cost after development	• Double the cost per acre than pivot irrigation • Can require disruptive/labour-intensive installation • Clogging of tubes can occur

[8] Greenmatters (2020), *Furrow irrigation can help save water, but is it worth the labor?*
[9] Waller & Yitayew (2016), *Center Pivot Irrigation Systems*
[10] FAO (2022), *Sprinkler irrigation*
[11] Artificial Plants (2018), *10 advantages and disadvantages of sprinkler irrigation system*
[12] Sharaf, B. (2022), *Advantages and disadvantages of drip irrigation*

Spotlight: Smart Water and Irrigation Management (SWIM) system

In 2019, Illovo Sugar Africa's parent company, AB Sugar, launched an Innovate Irrigation Challenge, inviting applicants to submit ideas around ways to make irrigation more water-efficient. The Innovate Irrigation Challenge was held in partnership with Water Aid and the Centre for Industrial Sustainability at the University of Cambridge.

The winning idea, submitted by two civil engineers from Uganda, has now become "Project Smart Water & Irrigation Management" (SWIM). The SWIM system uses a system of flow and power meters with remote sensors which help to detect leaks, adjust irrigation schedules, carry out water audits and feed this real-time data back to a cloud-based tool.

Proof of concept for the SWIM system was completed at Illovo Malawi's Nchalo Estate in 2020 and a further pilot is planned to roll out across 742 hectares at Nchalo during 2022. Based on initial results, Illovo Sugar Africa believes this technology may be able to increase sugar cane yields by up to 3 tonnes per hectare using the same net water. This is a significant opportunity for the Malawi estate, which is 100% irrigated by various methods. Further plans are in place to extend the roll-out of this system across the whole Malawi estate during 2023.

Crop harvesting and the move to green-cane

Currently, Illovo Malawi harvests 100% of its own sugar cane using cane burning methods followed by manual harvesting. Cane crops are burned to remove brown leaf 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. 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 Illovo Malawi explores measuring and reports 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[13].

Mechanised green-cane harvesting can offer various environmental benefits, primarily the reduction of air pollution from burning, the improvement of soil health through increased crop residues being left to decompose and return to the soil, and extra feedstocks for renewable energy generation. However, our engagement with the Agricultural team indicated that this future transition is one of the big challenges currently faced by Illovo Malawi. The shift to green-cane harvesting requires upfront capital investment, and while mechanised harvesting will create employment opportunities for skilled operators, it also presents a risk around the potential loss of employment for seasonal cane cutter remote workers if implemented suddenly, risking the company's social license to operate.

However, the company is aware of these risks and is committed to managing the transition carefully in future. One interviewee said that the transition to sustainable harvesting needs to be "a pull, not a push effect" for communities and employees and highlighted that

[13] Greenhouse Gas Protocol (2022), *Land Sector and Removals Initiative*

consideration is already being taken on how to manage some of the potential employment impacts. Green-cane harvesting will require skilled workers to operate the machinery and the company is currently in negotiations with some machinery suppliers to ensure that trainers will be available to upskill workers. In addition, the transition to new irrigation methods (see above section) will provide potentially significant employment opportunities as efficiencies in land, electricity and water use will free up capital and land for farmers to reinvest into additional value chains such as diversified crops.

Chemical inputs: pesticides and fertilizers

Illovo Malawi 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.

Currently, various methods are in place to prevent pollution. Programmes are in place for analysis of both water and air samples from around the site, with all wastewater screened before re-use. Factory effluent is mixed with lake water and used for agricultural irrigation, preventing effluent discharge into the surrounding area. Alternate methods for run-off prevention are also being considered, such as planting bamboo along the riverbank to prevent overflow flood protection and prevent erosion. Integrated pest management is also being considered at a commercial scale to reduce the negative environmental and social impacts of chemical usage. Considered exploration of these alternate methods could further reduce the negative environmental and social impacts of chemical input usage.

Soil health

Illovo Malawi recognises the importance of soil health and has several initiatives in place to improve this. Improving soil health benefits both sugar cane yield and wider ecological and environmental systems. For example, initiatives are in place to reduce water salinity, as high soil salt content reduces productivity. The company's agriculture team indicated that during 2020/21, its team also implemented initiatives to mitigate soil disease. For example, for Nchalo around 500 ha of land, and in Dwangwa 200 ha, is fallowed every year. During the fallow period, a cover crop, usually a legume, is planted which inputs varied nutrients into the soil, improving soil health and helping improve control of pests and diseases, such as the black sugar cane beetles or smut, respectively. In future, once green-cane harvesting is in place, residual organic matter from the harvest will be left in the fields to decompose and further increase the organic content of soils.

Grower livelihoods and agricultural practices

Grower livelihoods

Illovo Malawi works with several grower cooperatives to source its sugar supply. This includes four major grower cooperatives in the region, that supply to the Nchalo estate: Kaombe, Kasinthula, Phata and Chisanja, in addition to twenty grower associations in Dwangwa. These cooperatives and associations include a total of 8,583 growers, who supply 23% of the company's sugar cane, while the remaining 77% comes from the company's own land. This represents a shift from the company's supply chain in 2016/17, wherein 17% of sugar cane was supplied by a smaller number of 2,746 independent growers; this suggests that the indirect employment impacts from Illovo Malawi's sugar cane suppliers have multiplied in this period.[14]

[14] Corporate Citizenship (2017), *Illovo Sugar (Malawi) plc Socio-Economic Impact Assessment*

Figure 11: Volume of sugar cane from company and grower land, 2018/19 – 2020/21

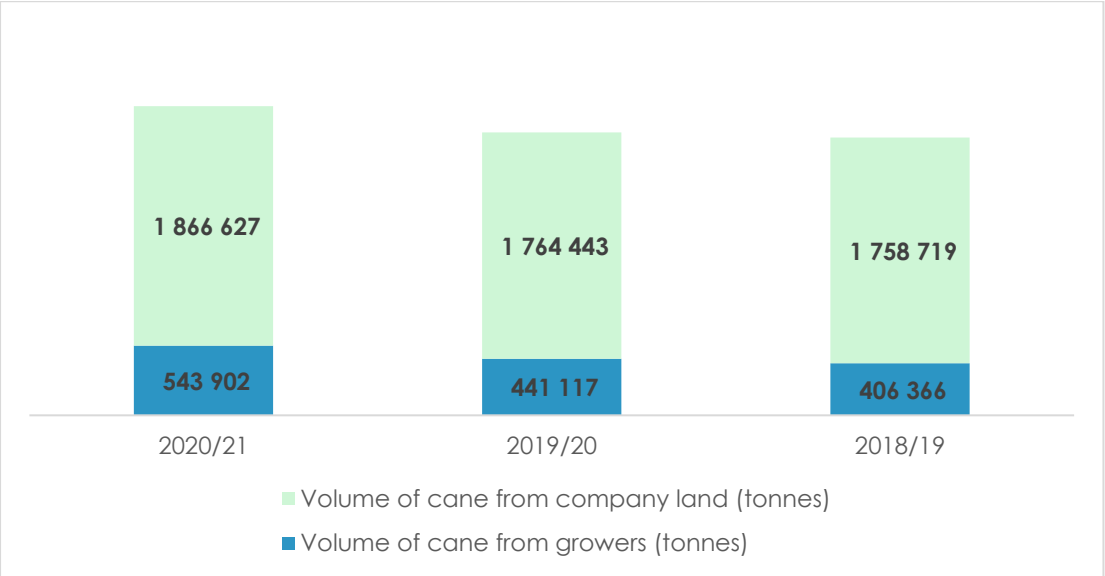
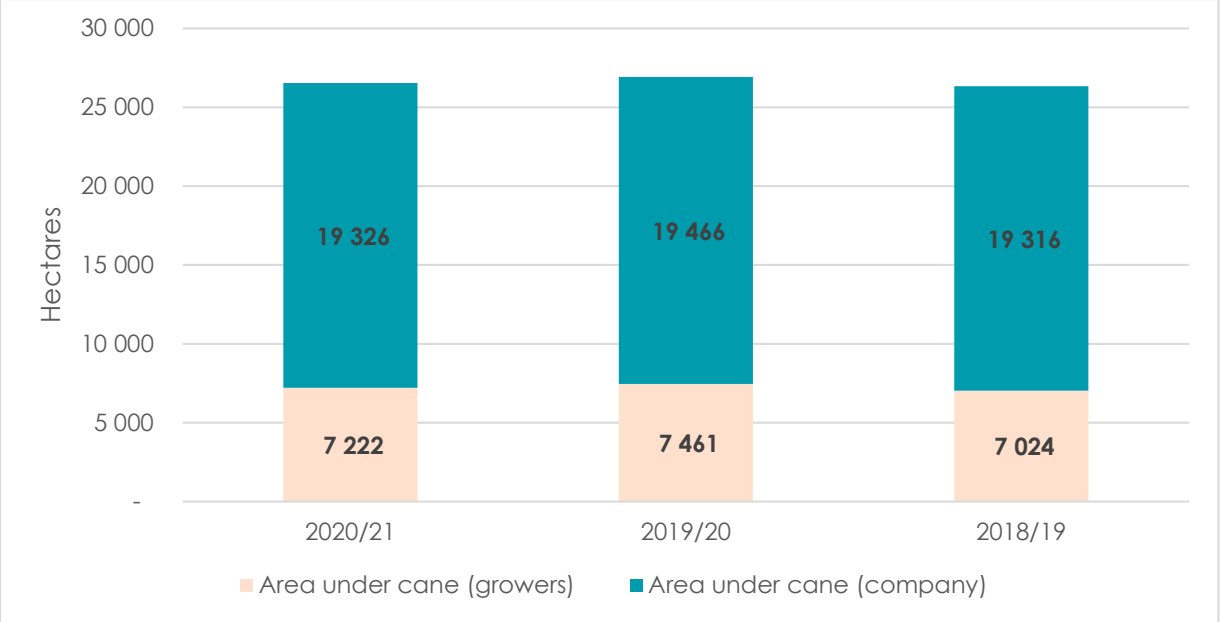


Figure 12: Area of land under cane for both growers and company land, across Dwangwa and Nchalo sites, 2018/19 - 2020/21



Most of Illovo Malawi's growers are small-scale growers, with one exception of a private commercial grower. These small-scale growers are independent farmers within the areas surrounding the company mills. Illovo Malawi purchasing from these growers provides income in rural areas where more than 90% of the country's poor reside.[15] Rural poverty continues to be an issue in Malawi, where poverty is increasing as opposed to urban areas where poverty is decreasing. Moreover, nearly 76% of the country's population work in agriculture. As such, Illovo Malawi plays a key role in providing agricultural income opportunities in areas where

[15] World Bank Group (2020), Poverty & Equity Brief: Malawi

they otherwise may not exist. This is especially the case here, where before sugar cane plantations the land was predominantly un-productive.[16]

Grower challenges

During the engagement with Illovo Malawi's growers as part of this assessment, while the positive role of the company's continuing demand for sugar was noted in supporting long-term livelihoods, growers also highlighted some challenges they face in sustaining their operations. Kasinthula Cane Growers Association (KCGA) highlighted how Illovo Malawi's sustained demand for cane has enabled the association to achieve significant growth. However, the KCGA has faced challenges in recent years as its crops have been damaged by weather events such as flooding and droughts, which in turn has affected KCGA's profitability and capacity to pay dividends to its growers. Illovo Malawi has worked with KCGA to strengthen its internal governance system and investment strategy, to become more resilient to such shocks in future and be better positioned to become more profitable in future, in turn enabling more consistent payments for growers. KCGA is now beginning to become more profitable again.

The impact of climate change on agricultural productivity is a significant challenge facing both growers and Illovo Malawi's operations in the future. As highlighted previously, around 80% of Malawi's population is dependent on rain-fed agriculture, making livelihoods highly vulnerable to the impacts of climate change.[17] The country has historically suffered from variable and unpredictable weather patterns, with droughts and floods becoming more frequent in recent years. These impacts are compounded by climate-driven variability in Lake Malawi's water levels, the source of much of the country's water. Floods have had significant impacts in recent years. In 2019, a major flood was estimated to have cost the country US$220.2 million in damages, with impacts across infrastructure, housing, livelihoods and other areas.[18] Illovo Malawi stands to benefit from increased investment in climate-resilient agriculture, both on its own property and amongst growers.

Spotlight: Kasinthula Cane Growers Association

Established by the Malawi government and a sugar mill, now managed by Agricane on the growers behalf, Kasinthula Cane Growers Association (KCGA) was established in 1996 to set up unproductive land for the supply of raw sugar cane. The farm is operated as a whole to ensure maximum yield.

After financial difficulty in 2018, KCGA sought funding from AgroCane, who is helping to rehabilitate the farm. The initiative now provides employment for nearly 800 permanent and seasonal field workers and is run by around 280 farmers. Due to the difficulties and lack of profits, KCGA hasn't been able to release dividends to the farmers.

The association is considering moving to a cooperative model to give farmers more control over their activities and pay fewer taxes to free up dividends. Previous revenue has been invested in improving productivity, healthcare, clean water, education and other projects to alleviate poverty in the community.

[16] Fairtrade Foundation (2022), Kasinthula Cane Growers Association, Malawi
[17] World Bank (2018), Climate-Smart Agriculture in Malawi
[18] OCHA (2019), *Malawi 2019 Floods Post Disaster Needs Assessment Report*

Grower agricultural practices

Illovo Malawi has a role in the community to not only provide employment but also to influence sustainable practices. In 2020/21, 6,112 growers were engaged through grower development programs provided by Illovo Malawi across both Nchalo and Dwangwa areas.

Our engagement with cooperatives indicated that Illovo Malawi provides various forms of support for the cooperatives it works with. This includes working to spread knowledge of agricultural best practices amongst growers and encouraging growers to follow environmentally friendly practices. In addition, Illovo Malawi often provides access to resources, such as providing water for irrigation systems and lower prices for fertilizer and chemicals. The company has also worked to connect its growers with markets offering Fairtrade premiums for smaller growers. Gaining Fairtrade certification provides various forms of support and benefits to grower businesses (see Community Connected).

Illovo Malawi has also made efforts to improve communications with growers. For example, the KCGA cooperative works with a company liaison who has established a grower communication line, with 24-hour communications about cane collection processes. This has led to improved deliveries to the factory this year. In addition, Illovo Dwangwa's management meets with Lakeshore Cane Growers Association (LCGA) on a quarterly and as-needed basis.

However, our engagement with the KCGA association highlighted various areas where Illovo Malawi could share further knowledge and best practice. Growers would like support specifically on disease and pest prevention, as agriculture in Malawi suffers from various pests. Growers mentioned the company's trials of hot water-treated seed, a method used to reduce pathogens, and indicated they were interested in understanding more about this, and other methods, for disease and pest control. Another area in need of greater support is weed control, which KCGA struggle specifically with as Fairtrade certification prevents them from using pesticides and herbicides (such as glyphosate). Illovo Malawi stands to benefit from improved grower support, as this offers the opportunity for greater productivity and improved sustainability across around the 7,222 hectares managed by growers.

FUTURE FACING CHALLENGES

Illovo Malawi's growers have struggled with low profitability in recent years, as a result of climate- and weather-related crop damages and challenging governance structures. To ensure a stable future supply of cane from external growers, Illovo Malawi may consider continuing its support to growers around developing climate-resilience and robust governance structures to maintain the financial viability of farming sugar cane.

A further challenge is the unpredictability of weather patterns, with increasing floods, cyclones, and other weather events risking agricultural productivity and livelihoods. Investment in climate-resilient agriculture and infrastructure would help mitigate the risks of these events. A proactive approach to engaging and supporting growers on how to adapt and increase resilience is also important.

Shifts to more environmentally sustainable methods such as mechanised green-cane harvesting will have impacts on the types of employment available in the long-run, risking Illovo Malawi's social license to operate if implemented rapidly. Shifts to more environmentally sustainable methods such as mechanised green-cane harvesting will have impacts on the types of employment available in the long-run, risking Illovo Malawi's social license to operate if implemented rapidly. However, Illovo Malawi is well-aware of these risks and while this is not an immediate issue, the company has started to develop plans to mitigate employment losses. Continued planning and action in collaboration with stakeholders is needed to prevent negative socio-economic impacts.

Value and quality-driven industry

Building on Illovo Sugar Africa's 130-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:

Illovo Malawi has maintained its efforts to lead in sustainable business practices and adhere to circular economy principles. These includes factories producing their own renewable electricity, utilising waste products from the sugar production process.

The company continues to be recognised as a leading employer providing opportunities across a range of areas from low-skilled manual labour to high skilled technical and management jobs. Our assessment shows that the company has systems and structures in place to support decent quality jobs including fair wages, increased investment in training and career development. However, there is a risk this becomes more difficult to maintain when recruiting high numbers of seasonal contractors and so should continue to be reviewed as the business grows.

The business also creates economic opportunity for other key players in the value chain both upstream through suppliers and downstream through retailers. There is a strong focus on local sourcing and empowering local business delivered through initiatives such as awarding local suppliers with contracts for sustainable high-quality prepack packaging that was previously sourced from foreign suppliers. Illovo Malawi recognises that by shifting contracts locally and investing in local suppliers, not just the suppliers, but also those involved in their respective supply chains, as well as their families and communities will benefit.

96%
of energy production from renewable sources

17% increase
in scope 1 & 2 emissions (2019/20 to 2020/21)

68,607 MWh
of renewable electricity generated

Environmental impact of operations

Illovo Malawi drives sustainable best practices throughout its operations. This includes activities to improve efficiency and innovation within business operations, such as the use of renewable, non-fossil fuel sources for energy production.

Energy use and generation

Illovo Malawi, like the rest of Illovo Sugar Africa's operating countries, generates renewable electricity as a by-product of its sugar processing operations. During 2020/21, 96% of Illovo Malawi's energy production came from renewable, non-fossil fuel sources in the form of bagasse, a fibrous residue left over after sugar cane crushing, as well as woodchips (<0.1%). The remaining energy was generated from imported electricity (4%), and diesel and petrol (<0.2%).

During 2020/21, Illovo Malawi's factories produced a total of 68,607 MWh of renewable electricity from bagasse and wood fuel. This was all used to power the company's own operations during 2020/21. By producing its renewable energy, Illovo Malawi cuts costs and reduces reliance on the national grid electricity supply.

The Nchalo factory currently has 1.7 megawatts (MW) of energy generation capacity installed, however, there are plans to increase co-generation capacity by installing a new set of boilers and turbines that will meet internal power requirements by adding a planned additional 32 MW, and a further additional 18 MW to enable exports of surplus power to the grid. This project will also optimise fuel combustion and enhance compliance with boiler emissions. The Dwangwa factory currently has a 6 MW energy generation capacity. In 2025, Illovo Dwangwa plans to install another 11 MW turbine using the existing steam and boilers with an aim of cogenerating power into the national grid. Once this is installed, it is expected that between 2 and 4 MW of the 11 installed will be exported into the national grid and the remaining balance will be used internally.

Operational emissions

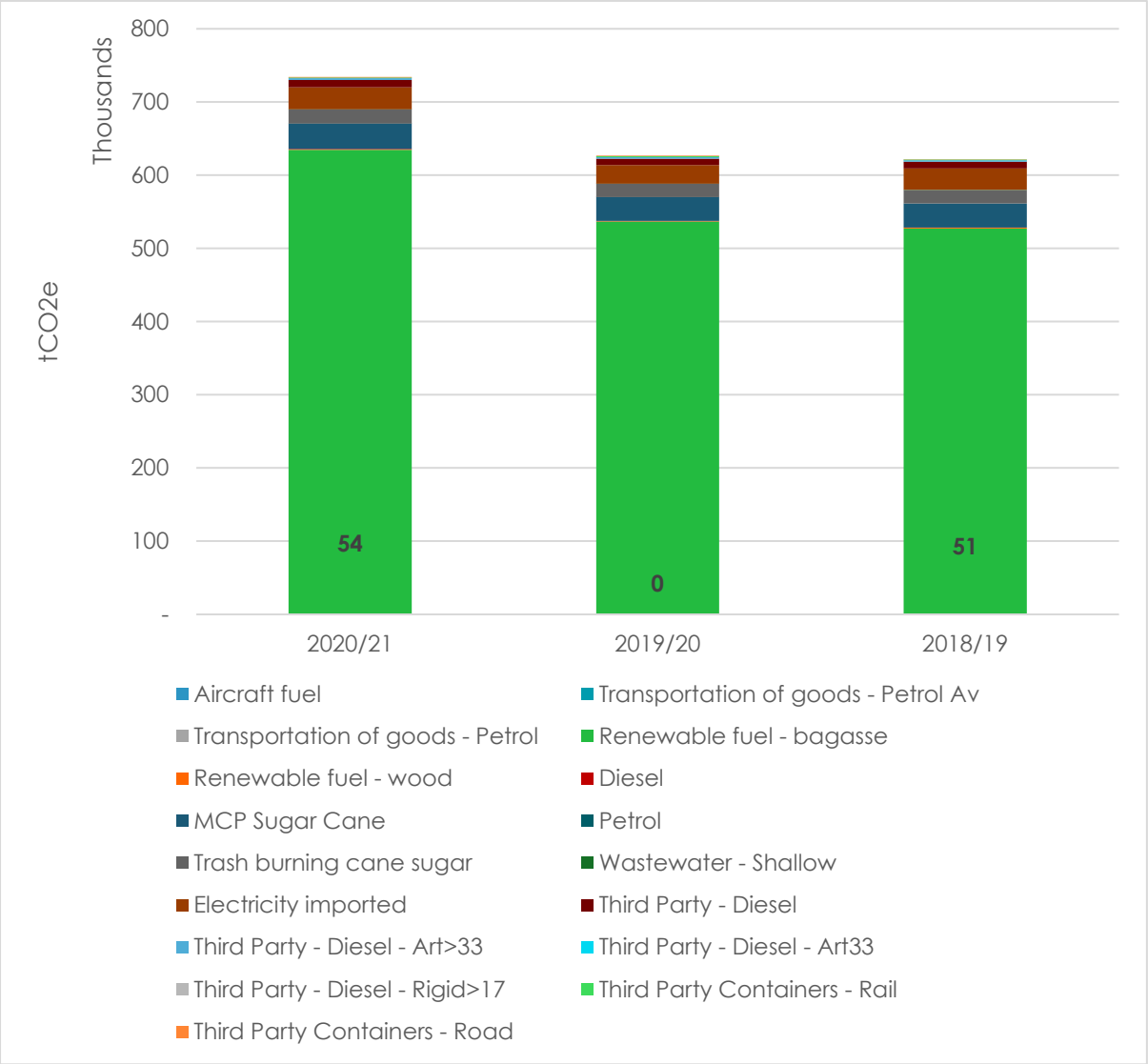
Illovo Malawi currently measures its greenhouse gas (GHG) emissions from scope 1, 2 and some scope 3 activities. 94% of Illovo Malawi's carbon footprint comes from scope 1 activities and this category is dominated by emissions from burning bagasse (constituting 92% of scope 1 emissions). While emissions from bagasse are here reported as the majority of Illovo Malawi'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[19]. The potential impacts of this greenhouse gas sequestration are not yet measured or reflected in Illovo Malawi's emissions reporting. It is recommended that the company explores how to measure these impacts, for example using the Greenhouse Gas Protocol's Agricultural Guidance[20], or upcoming guidance for land sector activities and carbon dioxide removals[21].

In addition to bagasse, other emission sources include diesel, petrol and plane fuel, 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). Illovo Malawi's total scope 1, 2 & 3 carbon emissions for 2020/21 were 734,163 tCO2e, which represents 16% of Illovo Sugar Africa Group's total measured carbon emissions in 2020/21.

Currently, Illovo Malawi only measures emissions from selected scope 3 activities, limited to third-party transportation and distribution services. In future, it is recommended that Illovo Malawi assesses its full scope 3 emissions in accordance with the GHG Protocol's 15 categories[22], to understand the full climate impacts of its value chain, and associated climate-related risks and opportunities.

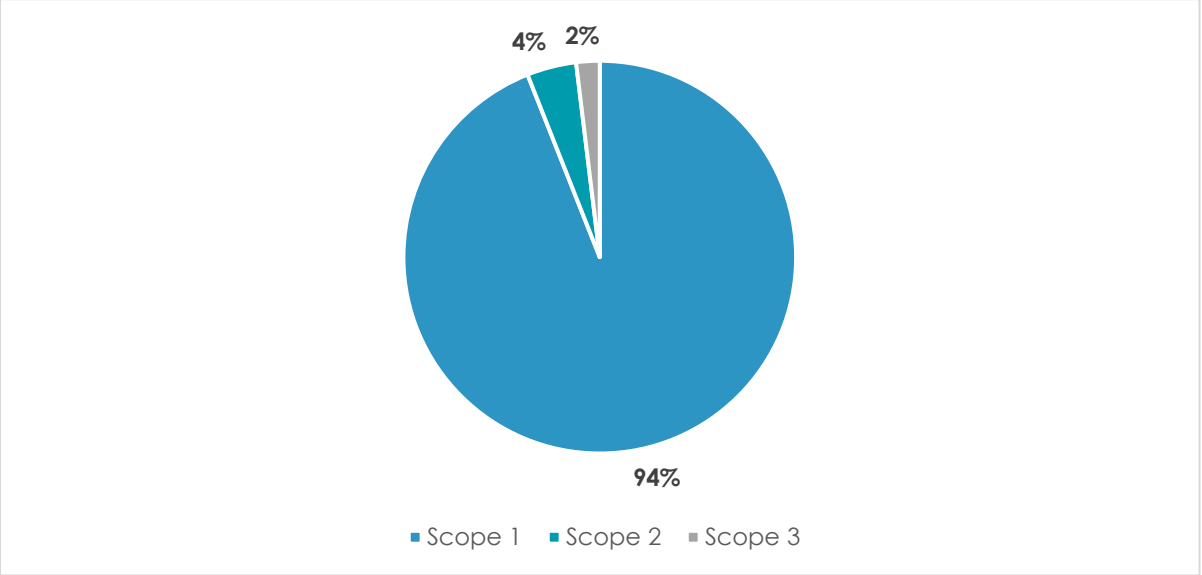
[19] O'Hara & Mundree (2015), *Cogeneration of sugarcane bagasse for renewable energy production*
[20] Greenhouse Gas Protocol (2022), *GHG Protocol Agricultural Guidance*
[21] Greenhouse Gas Protocol (2021), *Update on GHG Protocol Carbon Removals and Land Sector Initiative*
[22] Greenhouse Gas Protocol (2022), *Corporate Value Chain (Scope 3) Standard*

Figure 13: Illovo Malawi's GHG emissions by source over time (tCO2e), 2018/19 – 2020/21



The increase in operational emissions seen in 2020/21 can partly be explained due to the Nchalo operations harvesting more cane during this year due to lower factory breakdowns and a longer factory operating period. Emissions from bagasse, therefore, increased along with sugar processing and production.

Figure 14: Illovo Malawi's GHG emissions by scope (tCO2e), 2020/21



Air quality

Particulate air pollution emissions from Illovo Malawi's factory chimney stacks are monitored annually by a South African company, to comply with government requirements. Particulate emissions are generated from five boilers at the Nchalo operations and two at the Dwangwa operations, and during the reporting year, particulate emissions from some of these exceeded regulatory requirements. The factory team is exploring ways to improve boiler efficiency in future and improve regulatory compliance around particulate matter, by installing upgraded boilers with improved combustion efficiency and installing scrubbers on existing boilers.

Water use and discharge

During 2020/21, Illovo Malawi withdrew a total of 323,247 megalitres of water, which was 100% surface water. Illovo Malawi's factory aims to recycle water used within its operational processes as much as possible. Water that has been used in factory processes (effluent) is analysed after use for compliance with government standards, before being mixed with water from nearby sources to be diverted towards crop irrigation. The Dwangwa operations have plans in place to invest in an effluent treatment plant over the next ten years.

Operational waste

Many aspects of Illovo Malawi's factory operations embody circular economy principles. Generally, there is little waste in the sugar cane industry, with only what cannot be reused or recycled sent to certified landfill. In addition to bagasse from sugar production being used for energy production, during interviews with Illovo Malawi's factory management team, it was highlighted that the factory also re-uses the sugar residues, also known as molasses. The molasses from Nchalo's operations are used by nearby companies to manufacture alcohol, and some are used as cattle feed. Dwangwa has plans to start utilising excess bagasse to make briquettes to be used as cooking fuel, to reduce pressure to cut down trees for firewood. General waste from the factory and homes is properly segregated at the source and sent to an approved dumping site. Organic and vegetation waste is composed into manure that is used in cane fields. Plastic, metals and other materials are sent to an authorized vendor for recycling; rags and other immaterial waste are incinerated while in very rare instances where some are land dumped into the landfill. Currently, the business has initiated a project for plastic recycling which is championed by a team from all three sites.

Decent work and quality jobs

As a leading employer in Malawi, the company 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 managers.

K67,880 Illovo Malawi monthly minimum wage	**36% higher** than Malawi minimum wage	**K56.1m** invested in safety training	**0.06** Lost Time Accident Frequency Rate
K333.0m invested in training	**2,993** employees trained	**0** fatalities recorded 2018/19 - 2020/21	**K140.8Bn** spent on procurement

Minimum wage

Illovo Malawi conducts yearly salary benchmarking and balances findings with Consumer Price Index (CPI) indicators for the year. For unionised roles, wage negotiations are based on a balance of CPI, company affordability and cost of living. While living wage is a relatively new concept in Malawi, Illovo Malawi has conducted a survey of living wage with Partner Africa and a report of findings is scheduled to be published by the end of 2022.

Figure 15: Illovo Malawi's lowest monthly wage against the national monthly minimum wage, 2020/21

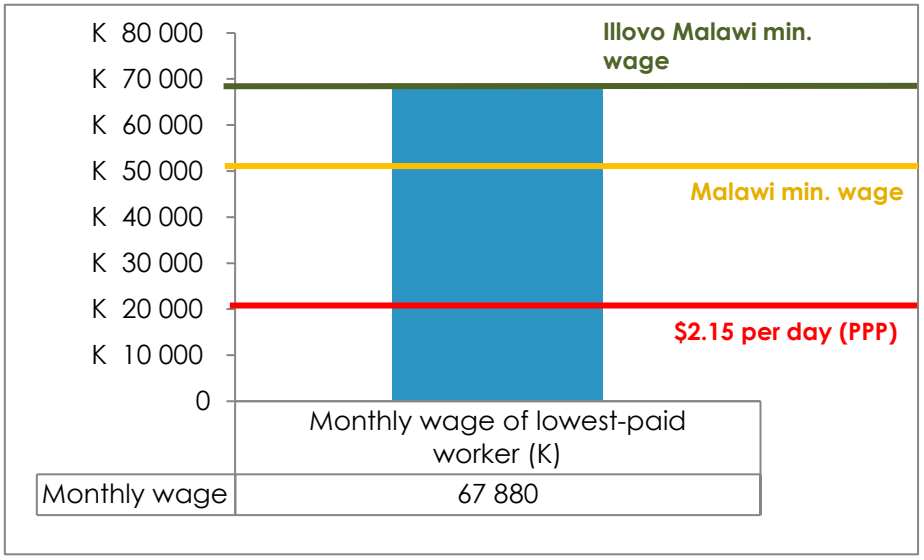
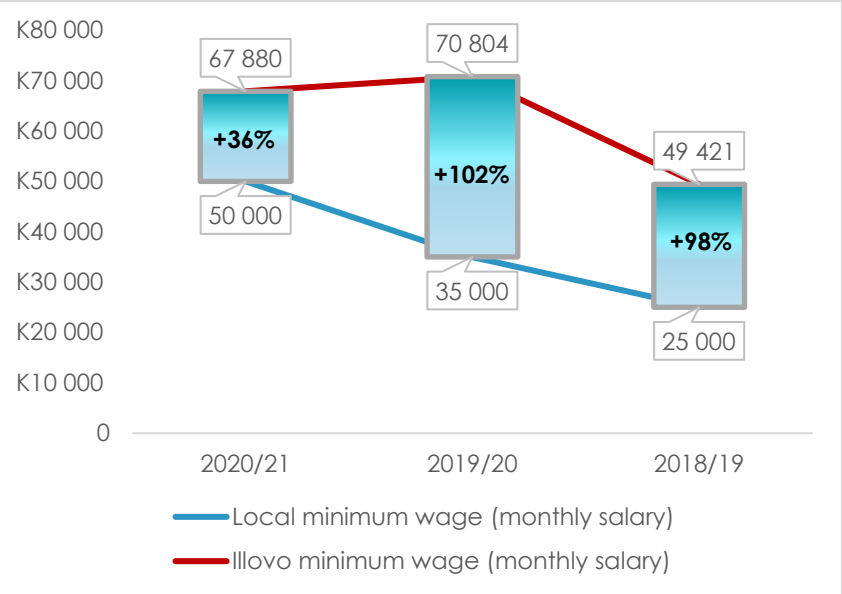


Figure 16: Rate of growth between Illovo Malawi's minimum monthly wage against the national minimum wage, 2018/19 – 2020/21



Even with a dip in the company's minimum wage from 2019/20, Illovo Malawi has consistently offered better wages than the national minimum, though as we see this increasing rapidly, the difference between them has narrowed in 2020/21.

Illovo Malawi employees are entitled to a number of different benefits in addition to their salaries, relating to support with housing, access to health and education for family members.

Through established collective bargaining agreements with unions and in-house country dispute resolution mechanisms, employees can raise grievances through formal means, called 'Speak Up'. 87% of Illovo Malawi's employees are unionised, up from 78% in 2017.

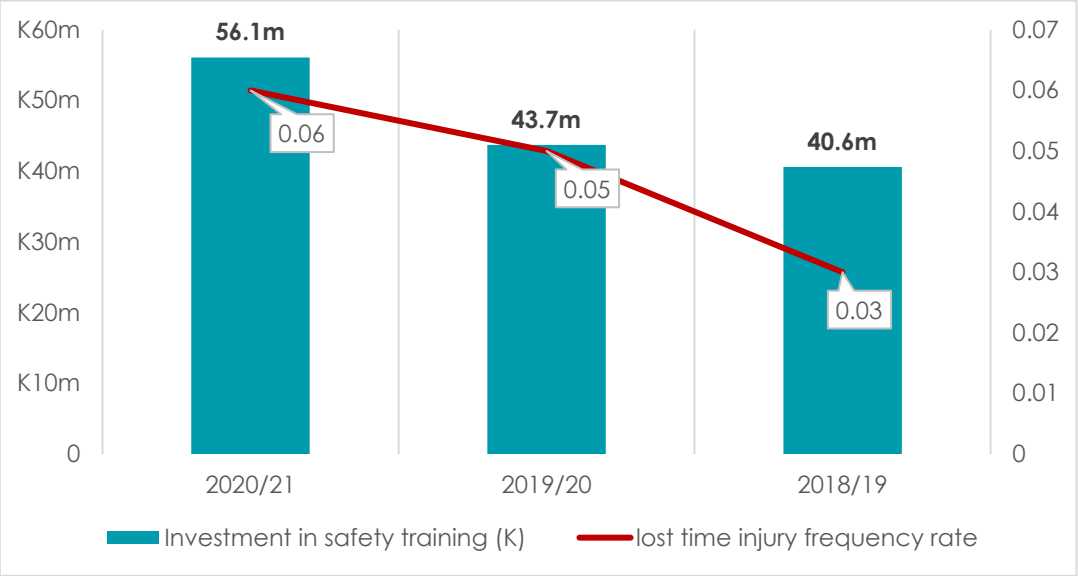
Occupational health, safety & development

During discussions with Illovo Malawi representatives in HR and factories, we found that the wellbeing of employees at Illovo Malawi is a priority, both in terms of health and safety, as well as career and personal development.

Safety training

Illovo Malawi invested K56.1m in safety training in 2020/21, with training investment relatively stable over the last three years. Our discussion with an Illovo Malawi factory manager did however reveal that the organisation is still committed to improving best practices, learning from other Illovo Sugar Africa mills on the continent.

Figure 17: Illovo Malawi's total investment in safety training (K) and LTIFR, 2018/19 - 2020-21



Other training & job opportunities

"Large groups of people currently focus on one area but would like to grow their skills profile to improve mobility across workforce to help drive innovations."

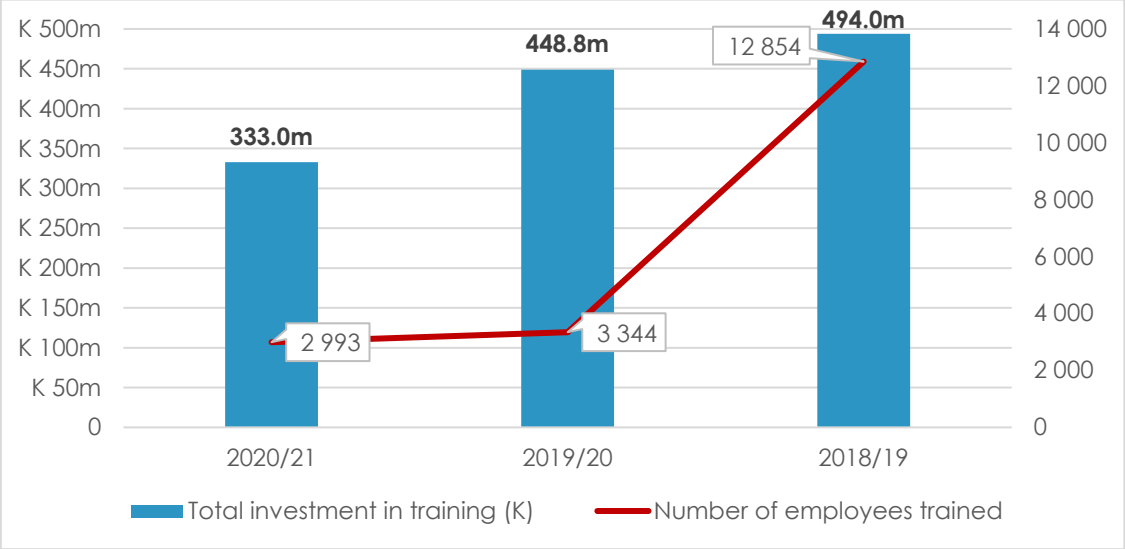
- Khumbo Ntambo-Banda
HR Director

Illovo Malawi also invests in training employees as indicated by initiatives such as Tiwale (let us Shine). The initiative was introduced at the close of the Tisinthe (let us Change) project and aims to create a more sustainable and efficient business that serves both the company and its employees. It is underpinned by employee engagement to generate new ideas, promotes the adoption of new technologies, enhances employee participation in innovation and encourages investment in areas that will spur business growth.

Another particular area of pride for the organisation is the existence of 'Sugar Babies', employees who were born on the estate, growing up to become trainees and eventually managers in some cases. Illovo Malawi does however acknowledge that there is still room for improvement in upskilling programmes, particularly focused on providing employees with new skills in different areas, enabling greater mobility for employees to switch roles.

Illovo Malawi invested K333.0m in training and development in 2020/21, involving 2,993 employees. Investment in training opportunities has declined since 2018/19, down 33% from the K494m invested then.

Figure 18: Illovo Malawi's total investment in training (K)and number of employees trained, 2018/19 – 2020/21



Value chain impacts

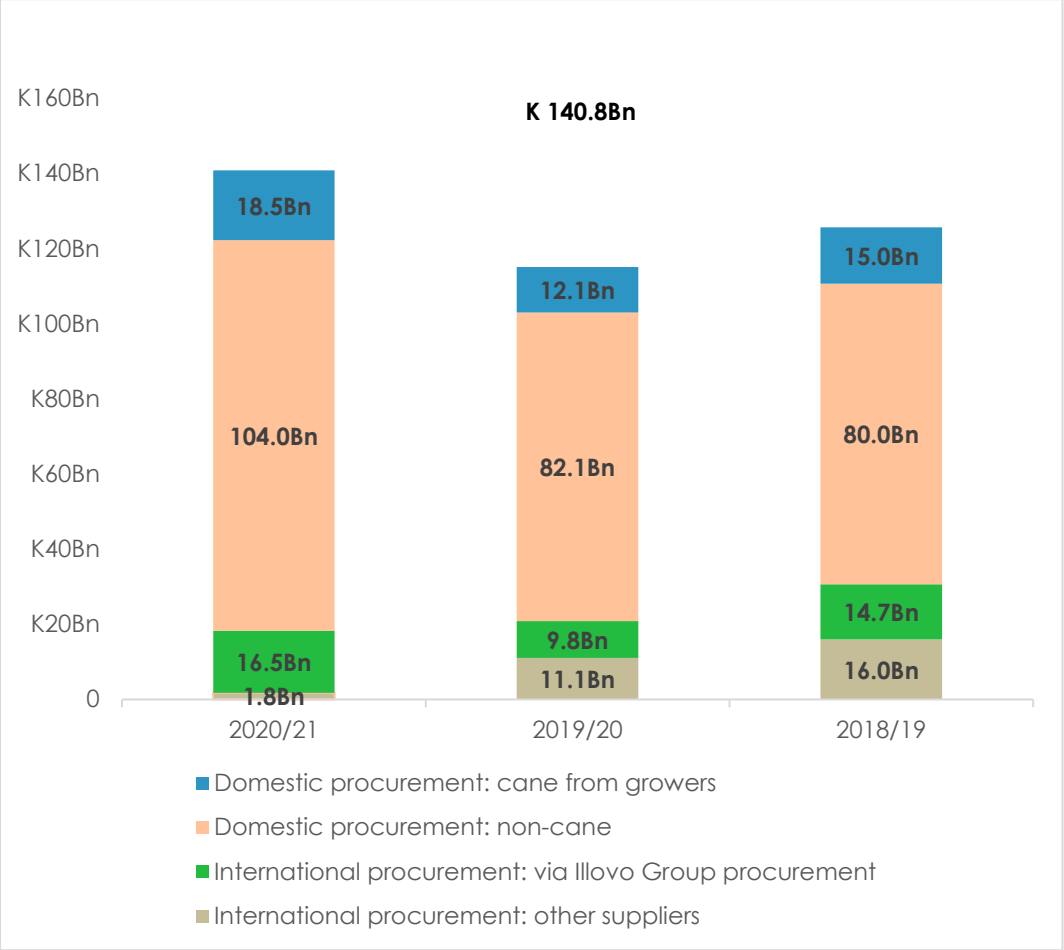
One of Illovo Malawi's more significant opportunities is the socio-economic impact it can create within its value chain, including both upstream (through procurement from suppliers) and downstream (through retailers of Illovo Malawi's products).

Procurement

In 2020/21, Illovo Malawi spent a total of K140.8Bn on procurement, with K18.5Bn on cane from growers and K103.95Bn on domestic non-cane procurement.

Local sourcing is a strategic priority, and Illovo Malawi has an active policy to procure locally where this is feasible and empower local small-scale businesses including women and vulnerable groups. In 2020/21, K122.5Bn was spent on local suppliers, meaning that 87% of total procurement spend was on 425 local suppliers and growers – helping to sustain domestic jobs and economic activity.

Figure 19: Illovo Malawi's supplier spending, 2020/21



Retail and distribution

Illovo Malawi has a significant downstream economic impact, as domestic sales involve many resellers, chain stores, stockists, supermarkets, grocers and industrial customers who use sugar as a key ingredient in their products. In 2020/21, Illovo Malawi had 2,618 such organisations within their value chain.

FUTURE FACING CHALLENGES

While many aspects of Illovo Malawi's operations embody circular economy principles, there are some opportunities to improve operational environmental impacts and reporting. In particular, the company can aim to upgrade boiler infrastructure to bring air pollution levels within regulatory limits, to expand emissions measurement and reporting to cover full scope 3 emissions, and to explore accounting for bioenergy emissions and any carbon sequestration from sugar cane in more detail.

In order to maintain Illovo Malawi's position as a leading employer and attract and retain talent, it is important to consider the quality of jobs at all levels of the organisation. Skills development and career progress will continue to be important, with our engagement highlighting opportunities for increased support in this area.

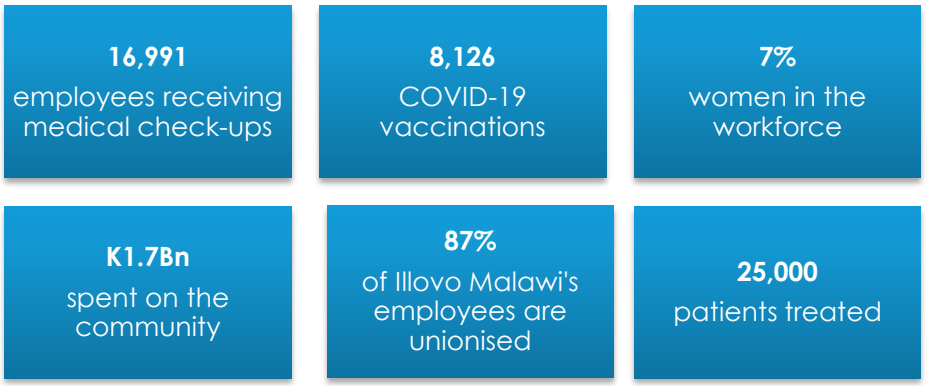
There has been a significant rise in the non-permanent employees, raising potential challenges as there is a higher risk of poor working conditions and low pay. Illovo Malawi should proactively look at the factors affecting the quality of these jobs.

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:

Illovo Malawi has developed partnerships with local communities, civic organisations and NGOs to help address some of the key social and economic challenges facing its wider community. Key focus areas have been preventing child labour, protecting land rights, and tackling the severe impacts from the COVID-19 pandemic. While the company has started creating policies and partnerships to make it easier for women to participate in the workforce, they should consider creating more targeted programmes to hire and train women. 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 hire and train women.



There are many elements to creating thriving communities. Illovo Malawi's impacts range from how the business provides support to its employees and families on its estates, to how it addresses challenges such as human rights, child labour and gender diversity within its own operations and in the value chain. Illovo Malawi must also play an active role within the wider communities around its estates, 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, hazardous and exploitative working standards exist. Illovo Malawi's team is making an engaged effort to prevent this in its operations and with its growers.

Spotlight: preventing child labour

According to the International Labour Organization, many children are still working in sugar cane cultivation facing hazardous conditions. Illovo Malawi has found success in preventing child labour in its supply chain through a robust policy to not hire children and through detection systems. The hiring process consists of mandatory ID checks to ensure people are of appropriate age. Illovo Malawi also conducts internal and external audits to ensure its child labour practices are adhered to.

Illovo Malawi ensures training on Illovo Sugar Africa's Group Code which states its commitment 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). This is applied to all suppliers and growers who receive the Code as part of their contracts.

Through established collective bargaining agreements with unions and in-house country dispute resolution mechanisms, employees can raise grievances through formal means, called 'Speak Up'. 87% of Illovo Malawi plc's employees are unionised, up from 78% in 2017.

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 has risen up the agenda for all companies globally. As a leading company within Malawi, Illovo Malawi has an important role in promoting DEI across its own workforce and within the grower and broader community it interacts with.

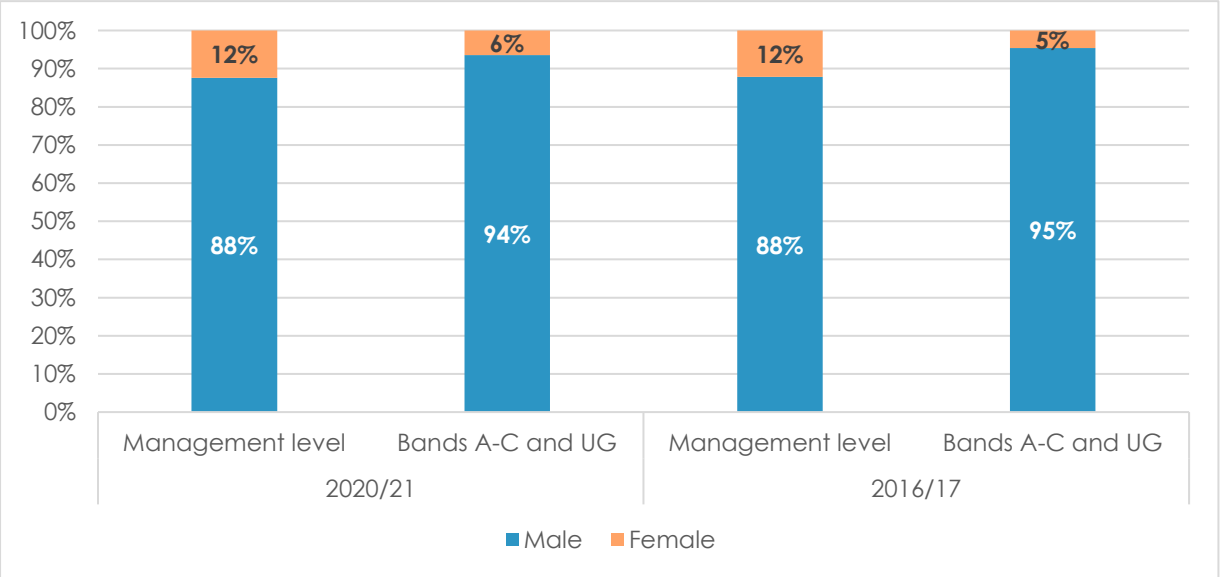
In the workforce

Illovo Malawi's permanent workforce is currently male-dominated. Women represent 7% of the total workforce, with 6% representation in non-management positions and a higher 12% representation in the smaller pool of management positions. This has not changed since our 2017 assessment, demonstrating that Illovo Malawi has more to do to address the structural barriers facing women at work in the industry.

Through our engagement with Illovo Malawi's HR department, we found that some important steps have been taken to improve gender diversity. HR indicated that it is promoting a positive hiring policy to get more women on board. To encourage women to apply for engineering positions, Illovo Malawi has partnered with the Malawi Institute of Science and Technology to promote women in Science, Technology, Engineering & Maths (STEM) roles. It has also donated K150m to sponsor female engineers to be trained for the company. Additionally, Illovo Malawi has put policies in place to try and make employment more accessible for women, for example for postnatal women through the reduction of work intensity.

Illovo Malawi has also launched the Illovo Women in Leadership (IWIL) Forum as a platform that oversees the strategies, policies, processes, and inclusion practices relating to the advancement of women in leadership roles within the business. This initiative aims to strategically prioritise the recruitment, development, advancement, and retention of women, to achieve representation of 30% of women in leadership by 2026.

Figure 20: Illovo Malawi's permanent employees by gender, 2016/17-2020/21



Women in the community

The company has also provided support to women outside of the estate. At the onset of COVID-19, Illovo Malawi worked closely with women's groups impacted by the pandemic. The company worked with 50 women to produce masks for Illovo Malawi employees, producing a total of around 100,000 face masks. Fifty women worked on this project for two months, with supervision, support and feedback from Illovo Malawi helping them to develop skills and alternate livelihood opportunities.

Community resources and services

Illovo Malawi provides various benefits, resources and services for employees, their families and the wider community outside of the estate. For this report, we have first discussed the positive impacts on the estates, followed by those within the wider communities.

The Illovo Malawi estate

Illovo Malawi has developed an estate which is home to roughly 7,855 employees and their beneficiaries with the company providing housing, schools, community centres, security and utilities. Illovo Malawi provides the majority of permanent employees housing with water and electricity. Permanent employees in the headquarters in Limbe, are provided housing allowances instead.

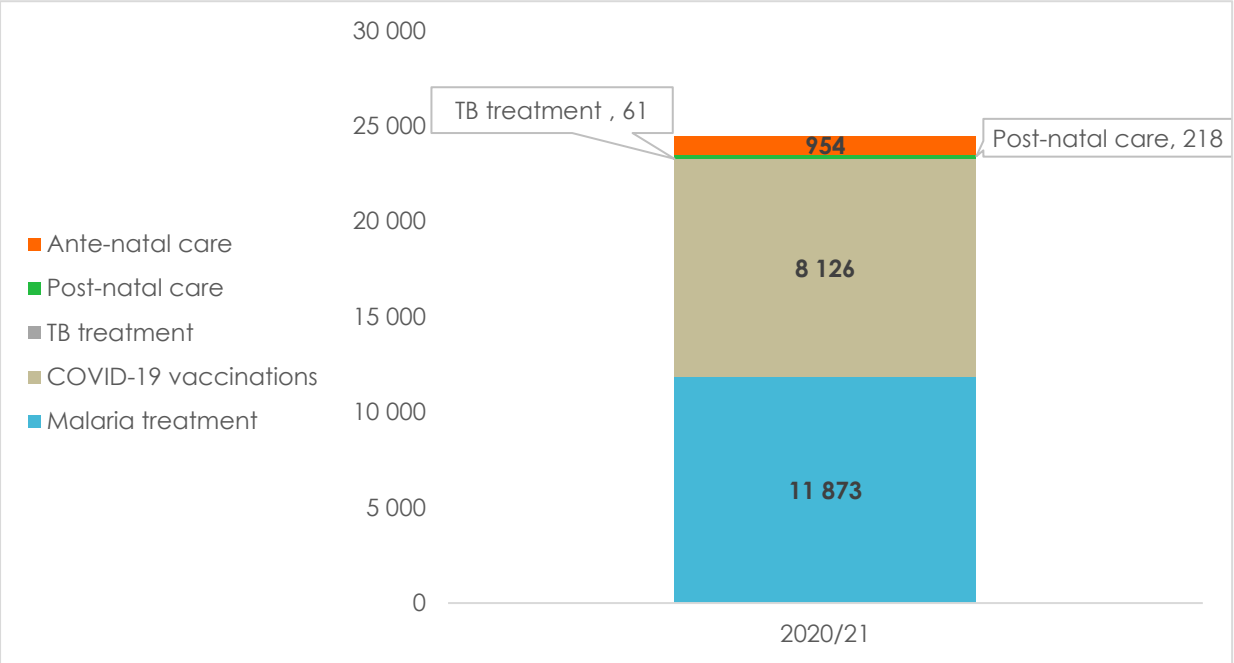
Education in the estate

Both the Nchalo and Dwangwa estates have their own schools, including desks and learning materials, in operation, and also support some government schools nearby. These schools house over 13,500 pupils. Our interview with Illovo Malawi's head of human resources highlighted that some individuals grow up on their respective estates and even progress to working for the company.

Healthcare facilities

Illovo Malawi's two estates are both home to healthcare facilities with full-time qualified doctors supported by registered nursing staff. These facilities provide healthcare to both on-estate employees and the broader community. On average 25,000 patients are treated every month for basic healthcare needs, with many additional services provided. This includes various programmes to control outbreaks of malaria, bilharzia and HIV/AIDS. As well, anti-retroviral drugs are dispensed on behalf of the government through the clinic network.

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



Illovo Malawi launched several projects to tackle the COVID-19 pandemic and spent K476m on its response efforts. The company set up a community intervention project to help with the fight against the spread of COVID-19 in Dwangwa and Nchalo. The project aimed to engage with the communities to highlight underlying behaviours that have created resistance to adherence to COVID-19 preventative measures as well as vaccine uptake.

Additionally, Illovo Malawi created public awareness campaigns through media and distributed 5,000 care packages containing buckets with taps and lids, face masks, soap and COVID-19 information.

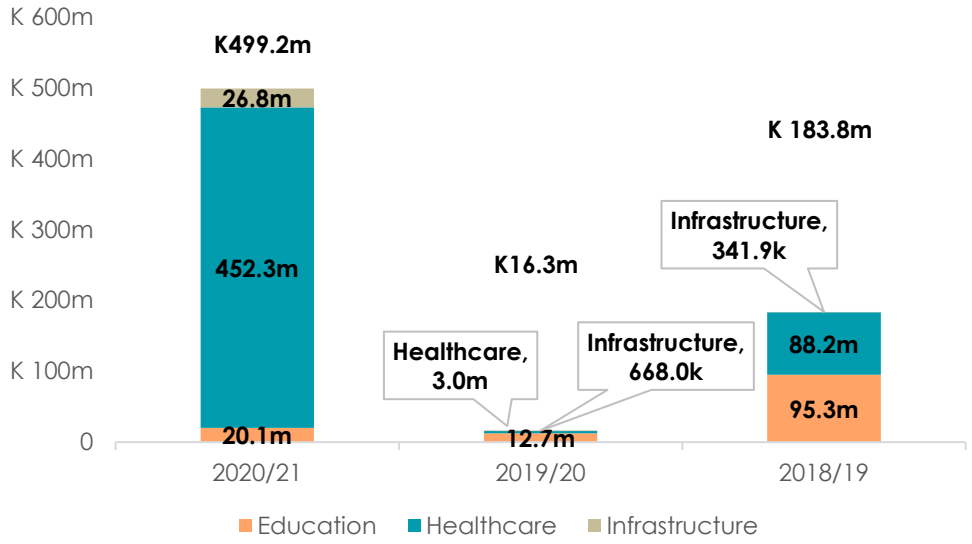
Inclusive stakeholder engagement

Illovo Malawi engages and partners with a broad range of stakeholders to address development issues such as the alleviation of poverty and contributing towards national food security and a healthy population. There are dedicated community services managers at both estates who are in regular communication with stakeholders in the field. The company is also a member of many health-focused groups including the National Health Cluster Committee, Scaling Up Nutrition (SUN) Business Network, the Micronutrient Technical Working Group, and the National Fortification Alliance (NFA). Additional engagement with local, regional and national government and regulatory stakeholders is conducted frequently.

Illovo Malawi invests in the broader community beyond the estate, totalling K1.7Bn in 2020/21. This figure is the sum of both employee-related and external social investments. Of the latter,

split between education, infrastructure and healthcare, the total Illovo Malawi spent in 2020/21 was K499.2m. In the context of rising rural poverty, these investments provide essential support to the broader community and help Illovo Malawi to maintain positive stakeholder relationships.

Figure 22: Community investment in infrastructure, education and healthcare, 2018/19 – 2020/21



FUTURE FACING CHALLENGES

The biggest challenge we have identified in terms of the workforce for Illovo Malawi is workforce diversity, especially in the permanent labour pool. With just 6% of the permanent employees being women, continued efforts are needed, however, the company does recognise this.

In the context of Malawi's high rural poverty rates, Illovo Malawi's role within the broader community is essential and requires continued engagement to understand the needs of the broader community and how best the company can provide support.

Recommendations

Recommendation 1

Gender diversity focus

We understand from discussions with Illovo Malawi's Human Resources that hiring more women is a focus and new initiatives have started to be developed. Gender diversity in the industry and within the country is a broader challenge as structural and cultural barriers exist. However, given the consistently low representation of women in Illovo Malawi's workforce and its position as a best practice employer, Illovo Malawi could have a real impact on this issue. This could be driven through a further focus on women's empowerment, investing in specific education and training for female employees, suppliers and business partners, and building partnerships with local organisations. Illovo Malawi should closely monitor the effectiveness of any new programmes it develops, to identify learnings and ways to improve.

Recommendation 2

Ensuring effective engagement and consistent pay for growers

From our discussions with grower cooperatives working with Illovo Malawi, it became clear that while the company's impact on the community is significant, there are still areas for improvement. Growers highlighted that securing consistent pay is a significant issue, with issues in how pay is governed. At the same time, growers could benefit from further information on sugar cane production best practices, in particular disease and pest prevention. Illovo Malawi could work towards improved communication with farmers to understand the issues faced and how best to address them.

Recommendation 3

Investment in climate-resilient communities, agriculture and infrastructure

Increasingly volatile and irregular weather patterns, with increased flooding, cyclones and other events are only likely to continue. This is likely to impact agricultural productivity and livelihoods. Illovo Malawi 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
MWK / Rand	47.87	59.2	61.44	51.05
ZMW / Rand	1.115	0.942	0.831	0.708
TZS / Rand	151.83	159.85	174.77	172.58
MZN / Rand	3.99	4.43	4.79	4.86
Rand / USD	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 categories[23]:

[23] 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.[24] 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.[25]

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.*

[24] IFC (2013), IFC Jobs Study: Assessing Private Sector Contributions to Job Creation and Poverty Reduction
[25] 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*.
- Oxford Business Group (2012), *The Report: South Africa 2012*.
- South African Sugar Association (2016), *Industry Directory 2016-17*.
- Kavese, K. & A. Phiri, (2020), 'Micro-simulations of a dynamic supply and use tables economy-wide Leontief-based model for the South African economy', *South African Journal of Economic and Management Sciences*, vol 232(1).
- Mulanda. S. (2020), 'Structural Characteristics of Zambia's Agricultural Sector and the Role for Agricultural Policy: Insights from SAM based Modelling', Stellenbosch University, South Africa.
- Phoofolo, M. L. (2018), 'Analysis of the economic impact of a disaggregated agricultural sector in South Africa: A Social Accounting Matrix (SAM) multiplier approach', Stellenbosch University, South Africa.

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 small-scale growers, 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[26]
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

[26] Sources for each country can be found in the corresponding country report.