

Cane

Terra has been growing sugar cane and producing sugar since 1838 when the Harel brothers acquired the Belle Vue sugar estate in the north of Mauritius. Today we have around 6,000 hectares of agricultural land, and we operate one of the island's most modern sugar-producing factories. We also jointly manage two sugar estates and factories in Côte d'Ivoire.

Our purpose is to be a global player in growing cane and manufacturing sugar, with a particular focus on specialty sugars.

Cane business model

Value drivers

Context and outlook

Revenue driver (price)

Market demand and pricing

- Commodity business shaped by supply and demand dynamics in the global sugar market and local pricing determined by the Mauritius Sugar Syndicate (MSS).
- Securing a price premium through the distinct offerings of specialty sugars.
- While sugar prices increased by 28% in 2022, global pricing remains volatile. Government policy is needed to adjust supply and demand dynamics and ensure vital industry support. As a relatively small global producer, Mauritius faces several market obstacles. However, Government has shown positive signs of engagement with the industry and announced better remuneration for *bagasse* in 2021.
- Mauritius has specialised in manufacturing a wide range of specialty sugars that appeal to discerning customers and agro-industrial ventures requiring healthier ingredients for finished food products. The MSS markets these products and is a reference for unrefined specialty sugars. With the MSS's renewed focus on targeting households and chefs for our specialty sugars, we have a more direct and active engagement with buyers.
- We maximise the value of our sugar mix by producing the right mix and concentrating on higher-value products.

Cost driver (price)

Material cost efficiencies

- Supply and demand of raw materials and freight costs.
- Efficiency gains in our growing and milling activities.
- The cost of fertiliser remains significant, driven by an imbalance in supply and demand dynamics due to trade restrictions, geo-political tension and supply chain disruptions. This cost increase has been offset to some degree by precision fertilisation but remains a challenge.
- We have adopted a predominantly defensive strategy to drive operational efficiencies in our Belle Vue and Côte d'Ivoire operations.
- We benefit from state-of-the-art technology and skills in mechanising cane growing and harvesting. Digital farming enables us to increase efficiencies in the face of a reduced workforce and labour shortages.
- Our highest costs relate to labour, followed by repairs and maintenance, fuel and fertilisers. We undertake activity-based costing exercises in our fields, mills, and garage to enable further optimisation.
- We continue to review possible growth opportunities internationally that harness our recognised technological and process skills.

Cane (Cont'd)

Cane business model (Cont'd)

The main residual risks for the Cane cluster as at 31 December 2022 are summarised below.

	Risk	Contributing factors	Risk mitigating activities	Year on year trend
R1	Decrease in the supply of cane combined with high costs of production resulting in reductions in productivity.	<ul style="list-style-type: none"> Drop in cane supply is accelerated by the following: <ul style="list-style-type: none"> Sharp increase in price of fertilisers. Decline in number of small and medium planters. Drop in area available for cultivation as a result of real estate developments by planters. Urbanisation resulting in challenges to cultivate next to residential areas. 	<ul style="list-style-type: none"> Supporting small planters: <ul style="list-style-type: none"> Taking initiatives to motivate the next generation of farmers. Advising small farmers on harvesting, weeding, and transporting the cane. Current price of sugar of MUR 25,000/tonnes for small planters to be sustained in the future. Current scheme to support re-plantation of old fields to be accelerated in the future. Optimising efficiency at Terragri: <ul style="list-style-type: none"> Adopting new technologies for digital farming. Adopting lean management principles. Investing in automation of processes. 	Unchanged
R2	Changing climatic conditions adversely impacting cane yield, resulting in losses.	<ul style="list-style-type: none"> Increasing demand for water from other users in the water-scarce north of Mauritius. Certain competing countries are inherently more conducive to sugar cultivation in terms of soil structure, climate, and water availability. Drought persisting and lack of water for adequate irrigation. 	<ul style="list-style-type: none"> Optimising water consumption and improving use of effluents for irrigation. Securing insurance cover (through the Sugar Insurance Fund Board). Adopting more resistant and higher-yielding strains of cane. Working with local authorities to increase the capacity of La Nicolière dam. Working with local authorities on a project of using water from retention basins. 	Increased
R3	Dependency on electricity and steam produced by Terragen to manufacture sugar at a reasonable cost	<ul style="list-style-type: none"> Machinery breakdowns due to insufficient maintenance due to poor financial condition. High cost of coal to supplement for <i>bagasse</i>, as and when needed. Government strategy in respect of existing power plant. 	<ul style="list-style-type: none"> To increase outside stockage area for <i>bagasse</i>. Organise night transfer of <i>bagasse</i> into internal storage, i.e. sufficient lights and shift system. 	New
R4	Ageing labour force combined with a lack of interest from the new generation for manual work.	<ul style="list-style-type: none"> Movement towards white-collar jobs. Result in disruption in cultivation activities for large and small farmers, more particularly. 	<ul style="list-style-type: none"> Recruitment of technical skilled labours. Succession planning exercise underway. Graduate programmes launched. Sponsorship programmes to be launched. 	Unchanged
R5	Plant and equipment failure, resulting in disruption to operations.	<ul style="list-style-type: none"> Breakdown of major equipment within the mill. Breakdown at Terragen operations impacting the supply of electricity and steam. Impact of freight to timely supply imported parts. 	<ul style="list-style-type: none"> Investing in modern plant and equipment and replacing old items as and when needed. Increased capital expenditure for 2022 to 2024 for Terra Milling (risk should be reduced by the end of the capital expenditure plan in 2024). Vehicle renewal plan well underway for Terragri and the risk of breakdowns somewhat reduced. Performing regular preventive maintenance and inspections of plant and equipment by specialist consultants. Maintaining a stock of critical spares on site. 	Unchanged
R6	Fire in the mill and in the fields, resulting in disruption to operations.	<ul style="list-style-type: none"> Criminal fires in sugar cane fields caused drop in yields and represent a danger to the health and safety of employees and neighbouring habitations. Combined presence of combustibles (cane, <i>bagasse</i>, sugar) and electrical equipment at the factory. 	<ul style="list-style-type: none"> Important capital expenditure in 2023 in the milling factory regarding an upgrade of firefighting set-up. Renewed anti-fire campaign "Yes We Kann" to prevent field fires. Only 140 hectares of cane fields burned in 2022. 	Unchanged
R7	Volatile global sugar price, below the breakeven point for Mauritius	<ul style="list-style-type: none"> Opening up of EU market to other players. Surge in cost of freight and reduction in vessel availability in Mauritius. 	<ul style="list-style-type: none"> Shifting towards specialty sugars that command a superior margin. Working with the Mauritius Sugar Syndicate to market the Mauritian brand, our specialty sugars and gain access to new markets. Less volatility in overall sugar prices since 25% of the overall sugar prices is fixed (<i>bagasse</i>, molasses and bottlers contribution). 	Reduced




Cane business model (Cont'd)

Capital	Material inputs ¹	Activities to sustain value	Material outcomes
 <p>People</p>	<p>Terra Milling employees 127 permanent 241 temporary</p> <p>Terragri employees 218 permanent 69 temporary</p>	<ul style="list-style-type: none"> Dedicated Health and Safety Officers at Terra Milling and Terragri. ISO 45001 certification at Terra Milling (an international occupational health and safety standard). Active investment in health and safety, including training, equipment, and visible management interventions. Ongoing efforts to instil a health and safety culture among employees and contractors. Covid-19 safety measures and procedures remain in place. Mentoring for individual employees, underpinned by enhanced performance management. Continued to embed our culture and engagement journey for employees, creating a culture of caring and learning. 	<p>Total recordable incident rate (TRIR) 14.6 (~21%)</p> <p>Lost time incident rate (LTIR) 13.2 (~25%)</p> <p>Severity rate² 13.2 (~69%)</p>
 <p>Manufactured</p>	Agricultural and milling equipment	<ul style="list-style-type: none"> Annual maintenance and critical spares are kept in stock. Regular inspections by consultants and equipment monitoring during operations through a computerised system (SCADA). Fire safety and protection procedures are in place. User access rights on operator terminals and regular server backups. Access to USB ports disabled to enhance cyber-security. 	
 <p>Natural</p>	<p>Land under cane cultivation (including area being prepared for plantation) 5,086 Ha (~1%)</p> <p>Water consumed 6,002,260 m³</p> <p>Liquid mineral fertilisers 55,156 T (~366%)</p> <p>Steam from Terragen 910,710 GJ (~17%)</p> <p>Sugar cane milled 687,241 T (~4%)</p> <p>Organic fertilisers 17,209 T (~19*%)</p> <p>Solid fertilisers 295 T (~13%)</p> <p>Diesel 1,040 m³ (~3%)</p>	<ul style="list-style-type: none"> Small planter advisors remain in place to motivate small-scale farmers to implement efficiency measures and assist with harvesting and transport. Measures are in place to optimise water consumption and improve effluent utilisation for irrigation. 	<p>Own cane harvested 278,451 T (~15%)</p> <p>Specialty sugar produced 76,171 T (~6%)</p> <p>Organic cane area planted 58 Ha (0%)</p> <p>Oil used 13.1 m³ (~38%)</p> <p>Vehicle tyres used 19 T (~73%)</p>

¹ Data as at 31 December 2022.² Calculation methodology was updated in 2021

Cane (Cont'd)

Cane business model (Cont'd)

Capital	Material inputs ¹	Activities to sustain value	Material outcomes
 <p>Social and relationship</p>	<p>Quality relationships with key stakeholders, including MCIA, MSS, Terragen, planters, employees and trade union representatives, and service providers.</p>	<ul style="list-style-type: none"> Following the collective bargaining process initiated in 2021, we successfully signed a collective agreement between companies and the sugar industry trade unions in 2022. For Terra Milling, 85% of workers remain unionised, and for Terragri, 75% of workers are unionised. We actively engage with MSS, Business Mauritius, and Government stakeholders on the sugar industry's future. We are assisting MSS in strengthening the branding and marketing of Mauritius' premium specialty sugars and exploring new market opportunities. Customer visits to our facilities strengthen our relationships with them, and we are closer to our customers today than five years ago. Our major sugar buyer remains Silver Spoon. 	<p>Employee turnover rate 9.0% (2021: 9.2%)</p> <p>Days lost to strike action Nil (2021: Nil)</p> <p>Payment in taxes MUR 1.5 million</p> <p>Strengthened relationships with employees, Government departments and customers.</p>
 <p>Intellectual</p>	<ul style="list-style-type: none"> International certifications, including BRC, GMP, Halal and C-TPAT. Application of HACCP Codex Alimentarius. A registered SEDEX B member and subject to annual third-party audits on local and international labour laws; health, safety and environmental regulations; and business ethics. 	<ul style="list-style-type: none"> Renewal of certificates and customer second-party audits to ensure product and system safety and social and environmental compliance. Improving efficiencies across our growing and milling operations. New technologies and software (CanePro) enable digital/precision farming, and we introduced yield monitoring on harvesters to build yield maps, enabling better decision-making. 	<p>Continuous improvement in farming and manufacturing techniques.</p> <p>Production cost (agriculture) MUR 19,000/T (~33%)</p> <p>Production cost (milling) MUR 8,100/T (~3%)</p> <p>Cane processing 270 T/hr (~3%)</p>
 <p>Financial</p>	<p>Cane cluster total equity (Jan 2022) MUR 6,797.8 million</p> <p>Total borrowings MUR 621.9 million</p> <p>Capital expenditure MUR 208.7 million</p>	<ul style="list-style-type: none"> Actively manage financial performance through weekly executive meetings, monthly management meetings and regular Board meetings. 	<p>Turnover MUR 1,587.1 million (~29%)</p> <p>Profit MUR 329 million (~212%)</p> <p>Cane cluster total equity (Dec 2022) MUR 8,811 million</p>

¹Data as at 31 December 2022.

The operating context

Material issues impacting value creation

Sustaining supply from small-scale cane producers - Around 40% of our cane is produced by Terragri, with the balance produced by large (42%) and small (18%) growers. As such, we rely on a regular cane supply from independent small-scale cane producers. With the price of sugar remaining volatile and considering the difficulties securing labour, farmers are leaving the sector.

Water availability - 57% of our fields depend directly on local rainfall and are susceptible to changing weather and climate uncertainties. In 2022 we faced a third year of below-average rainfall (particularly in the second half of the year), which impacted cane yields Mauritius-wide. In terms of irrigation for the remaining 43% of our fields, we face increasing competition from other users as the economy grows in the water-scarce north of Mauritius

Continuing volatility in global sugar prices - In 2022, global sugar prices continued to improve. In Mauritius, the price of sugar ex-MSS increased from MUR 16,765 per tonne in 2021 to MUR 21,500 per tonne in 2022. Revenue per ton of sugar increased from MUR 22,000 per tonne in 2021 to MUR 26,500 per tonne in 2022. This increase is mainly attributable to improved sugar prices.

Challenging sugar trade dynamics - Sugar is a worldwide commodity and is directly linked to the cost of freight, demand and supply dynamics, and climate change. The global sugar market was profoundly affected by the European Union's abolition of sugar quotas in October 2017, which contributed to a global supply surplus and lower sugar prices. In many sugar-producing countries, such as Europe and India, producers are given subsidies. These strong protectionist measures also impact the global sugar market. Brazil, historically the largest sugar producer, mainly produces for its internal use and for ethanol production for energy, with the surplus sold onto the global market. This results in different pricing competitors to Mauritius.

Structural challenges in the Mauritian sugar sector - The Mauritian sugar sector has unique features, including a highly regulated labour environment and a centralised organisation, the MSS, responsible for marketing and selling all locally-produced sugar. As the MSS controls revenue centrally, we focus on new products and reducing production costs. Given that it is challenging to mechanise on mountain flanks or small fields, our industry remains labour-intensive. The World Bank report led to improved remuneration for *bagasse*, which is a step in the right direction.

Our response

To ensure a regular flow of cane to our mill, we focus on reviving the interest of existing and prospective independent cane planters. Our team works with and advises small farmers on harvesting, weeding, and transporting the cane. We continue to work with authorities to identify opportunities to motivate the next generation of planters appropriately. We will need to mechanise in the long term, and digital farming is an essential part of this transition.

We continue implementing measures to optimise our water consumption and ensure better utilisation of effluents for irrigation.

Following the World Bank's recommendations for the sugar sector, the Government implemented better remuneration for *bagasse*. This was a major plus for our operations and the industry, reducing the impact of volatile global sugar prices on Terra. We maintain a strong focus on enhancing efficiencies across our growing and milling operations and continue to make progress in reducing production costs.

With high competition for specialty sugars in European markets, we are focusing more on emerging markets such as China and India. We are working actively with the MSS to assist them in strengthening the branding and marketing of Mauritian sugar and to identify new market opportunities, particularly in our distinctive specialty sugars. We believe that the longer-term fundamentals for sugar remain strong, particularly given growing consumer demand in emerging markets and demand for healthier, unrefined sugars that command a price premium.

In the face of challenging global trade and pricing dynamics and considering sugar's substantial contribution to the Mauritian economy, the industry submitted a proposal for structural reform in 2020. Suggested measures to enhance local competitiveness included reviewing the current regulatory context for labour, providing better remuneration for *bagasse* (the sector's renewable energy source), and ensuring that millers receive fair returns from the Sugar Insurance Fund Board (SIFB). In 2021, the Government announced the remuneration of *bagasse* at MUR 3,300 per tonne of sugar. The Government sustained this rate in 2022.

Cane (Cont'd)

Our 2022 performance

The Cane cluster was challenged by a low cane yield in 2022. While we were expecting to produce 80,000 tonnes of specialty sugar to meet demand, we were only able to produce 76,171 tonnes. The low cane yield was due to several factors that included the 2021 crop finishing late, resulting in a shorter 2022 cane cycle; delayed fertilisation and ongoing drought that impacted sugar cane growth.

The poor climatic conditions and low rainfall further impacted replantation volumes. We were only able to plant 352 hectares of cane versus our planned 463 hectares as our fields were without irrigation (due to Government restrictions) or rainwater for several months. The cost of fertilisers, herbicides, and spare parts remains significant. Fortunately, freight and shipping costs normalised, and the cost of raw materials improved; however, long lead times remain a challenge.

Despite these difficulties, the Cane cluster achieved a record performance in 2022, posting profits of MUR 329 million compared to MUR 105.3 million in 2021. This result was driven by tighter cost control and ongoing efforts to drive efficiency, coupled with improved global sugar prices and fair remuneration of *bagasse*. The cluster's strong performance was further supported by improved harvesting efficiency and a much better extraction rate, aided by our investments in digitalisation, automation, and lean management over the years.

Following the collective bargaining process initiated in 2021, the Cane cluster successfully signed Mauritius' first collective agreement between companies and the sugar industry trade unions in 2022. This was a significant highlight for the year, and we believe the negotiations resulted in a fair and positive outcome for all parties. Read more about this on page 74.

For the 2022 crop, Terra Milling processed 687,241 tonnes of cane (2021: 718,969 tonnes). This resulted in 41,120 tonnes of sugar accruing to the Group (2021: 41,540), with 16,902 tonnes attributable to milling operations (2021: 15,815) and 24,218 tonnes to growing operations (2021: 25,725). Terra Milling produced 75,958 tonnes *tel quel* of raw sugar (2021: 71,952) and 76,171 tonnes of specialty sugars (2021: 71,760). The average sucrose content stood at 12.62% (2021: 11.61%). On the growing operations side, the extraction rate stood at 11.17% (2021: 10.01%) with an average yield of 7.04 tonnes of sugar per hectare (2021: 7.14 tonnes).

As mentioned in last year's report, we sadly lost our Terra Milling factory manager, Ajay Parsan, in 2021. We are pleased to announce the recruitment of Didier Ramsamy as our new factory manager, who joined us in August 2022. He has vast experience in the sugar manufacturing industry having spent many years in sugar factories in Africa.

Mauritius: driving efficiency and innovation

We invested MUR 70 million in 2022 in machinery renewal and automation projects as part of our investment plan. This investment yielded further positive changes in the mill's performance and improved efficiency.

In 2022, the mill operated an average of 18.7 hours per day and crushed an average of 5,053 tonnes of cane per day (2021: 17.8 hours and 4,958 tonnes). The extraction rate of the mill was 96.64 (2021: 96.03), while the milling rate was 270 tonnes per hour (2021: 279). Due to the lower volume of cane in the sugar mills, our cost of production was MUR 8,100 per tonne (2021: MUR 7,900 per tonne), a 3% increase. On the growing side, we targeted MUR 15,000 per tonne of sugar for a production of 36,000 tonnes and achieved MUR 19,000 per tonne for a production of 31,000 tonnes.

Previously, we relied on coal and *bagasse* to run our manufacturing operations during the crop season. However, due to challenges at Terragen and Force Majeure declared under the PPA with CEB (page 58), we were solely reliant on *bagasse* for the provision of electricity and steam to Terra Milling. This was a new challenge for the cluster, but we managed it successfully.

Vegetable production made a profit of MUR 13.7 million for the first time in many years, following structural improvements and a change in personnel.

This year we were certified with the BeVeg Vegan standard. BeVeg is ISO accredited and globally recognised for its vegan standard and vegan certification process. Achieving certification with this standard will enable us to access new markets and offer products that meet the needs of the growing vegan consumer base.

Yes We Kann: putting a spotlight on a modern and dynamic industry

After the success of our 2021 campaign to reduce criminal cane burning, another positive development this year was the launch of the *Yes We Kann* campaign. This campaign focused on sending out a positive message about the value of Mauritius' sugar industry and creating awareness of the progress made in recent years to modernise and diversify the sector. We spent MUR 1 million on the campaign, which used a combination of TV, radio, billboards, and social media. The campaign was undertaken in partnership with multiple stakeholders, and we will repeat it in 2023.

Our 2022 performance (Cont'd)

Creating a culture of trust and protecting employees

We continue to see significant benefits from our culture and engagement journey. This was demonstrated by the increase in the cluster's employee engagement score, which improved from 33% in 2017 to 85% in 2022. We continue to identify opportunities to align the cluster's vision, mission and purpose with our goal of building a learning, caring and results-driven culture.

A major highlight for Terra Milling was aligning its operations with ISO 45001, an international occupational health and safety standard issued to protect employees and visitors from work-related accidents and diseases. Terra Milling completed its ISO 45001 certification audit in December 2022.

Unfortunately, we experienced an increase in health and safety incidents at Terragri. In 2023, we will focus on learning from these incidents and taking steps to prevent and mitigate associated risks.

Côte d'Ivoire: A challenging year

It was another challenging year for the two sugar estates and factories that we manage in Côte d'Ivoire with our Ivorian partner SIFCA. Revenue increased by 5% driven by an increase in sale of imported sugar (+66%), which compensated for the drop in the sale of own production sugar (-10%). Performance was primarily impacted by operational delays and financial constraints. We remain technical advisors in Côte d'Ivoire and are working closely with the business to achieve better yields. We are also reviewing the business's management structure and believe operations will benefit from the newly-appointed management team.

Sucrivoire sold 128,289 tonnes of sugar (comprising 88,356 tonnes of own production and 39,933 tonnes imported), compared to 122,481 tonnes in 2021. Production from our factories in Borotou and Zuenoula, which collectively supply half of the sugar consumed in the country, decreased from 90,401 tonnes in 2021 to 73,948 tonnes in 2022.

We continue to focus on increasing production capacity and upscaling our factories to satisfy strong local demand, with the aim of increasing production to 120,000 tonnes by 2024. The coming years will be challenging, and a major restructuring of the company will need to take place. However, we remain confident in the country's growth potential.

Our strategic outlook

We remain committed to our vision of producing 350,000 tonnes of cane by 2027. To achieve this, we are focused on better irrigation and increased replantation and have prioritised strategies in our fields and mills to increase and sustain sugar production.

In our fields we are focused on:

- Scaling up our replantation programme, underpinned by using CanePro to enable digital/precision farming and improved yield monitoring
- Maximising the value of our sugar mix and concentrating on higher value products
- Increasing precision fertilisation and investing in machinery to increase our daily application capacity
- Improving irrigation and engaging with relevant authorities regarding ground water abstraction
- Optimising and streamlining our harvesting plan and maximising our logistics to deliver on this plan.

Cane (Cont'd)

Our strategic outlook (Cont'd)

In our mills we are focused on:

- Engaging with cane suppliers and small cane growers to safeguard cane supply stability
- Tightening cost control
- Replacing and refurbishing old equipment to reduce breakdowns
- Focusing on skills and talent retention, including undertaking succession planning for critical positions.

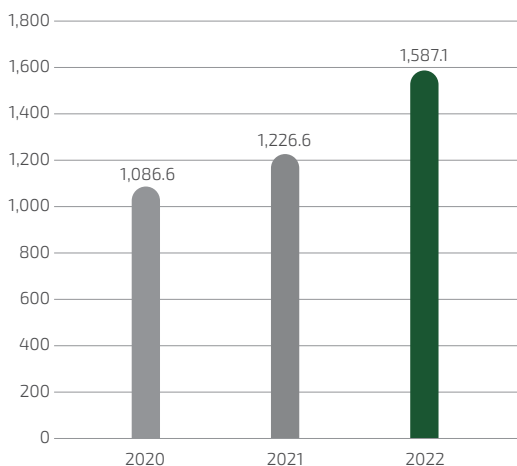
As announced in the National Budget Speech in June 2022, the Development Bank of Mauritius (DBM) established a Cane Replantation Revolving Fund. This fund will provide loans at preferential rates to small and large sugar cane planters wishing to renew their crops or return abandoned land to cane cultivation. We have applied for a loan under this fund and will continue to engage with the DBM in the year ahead.

The World Bank report on the future of the industry was approved by Government in 2022, and we were pleased with the announcement of better *bagasse* prices and the construction of a modern storage facility to improve competitiveness. We await further action by Government to implement the World Bank's recommendations for public policies and programmes to end the decline in sugar production in Mauritius and secure the development of the local sugar cane sector.

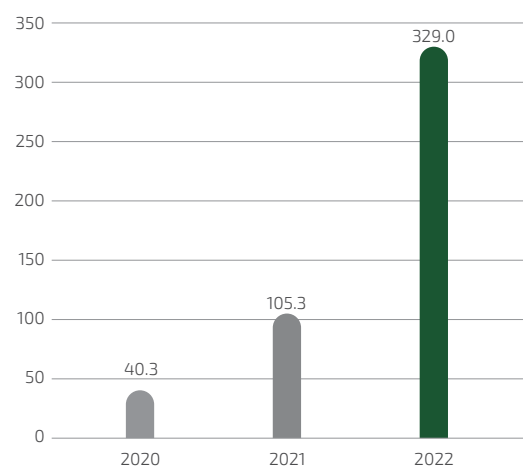
In both our growing and milling operations, we remain focused on our culture and engagement journey; instilling a strong culture of health and safety; and improving our environmental performance with a particular focus on energy, water and waste management. In Côte d'Ivoire we will continue with our expansion plans and taking the necessary steps to improve competitiveness and efficiency.

The year ahead will remain challenging, with water and fertilisation key areas of concern. We are confident, however, that we are well positioned to build on the momentum achieved in 2022 and deliver another strong financial and operational performance, guided by a clear strategic plan. We believe sugar prices will remain elevated in 2023, which will further support profitability. We will continue to engage with the Government through the MSS and Business Mauritius to strengthen the resilience of the local sugar sector.

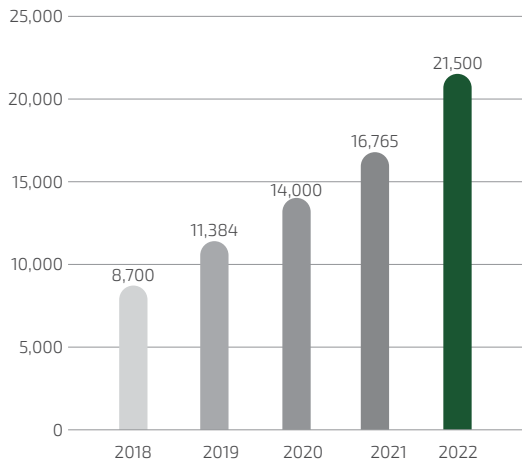
Turnover (MUR'M)



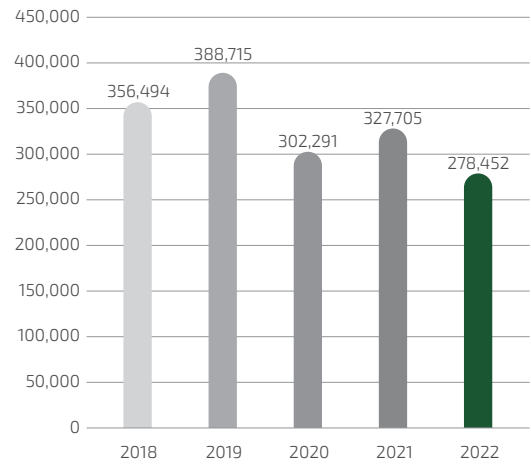
Profit after Tax (MUR'M)



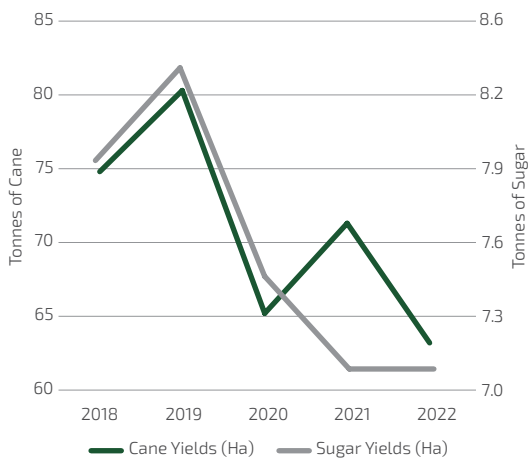
Sugar Price (MUR per tonne)



Cane Harvested by Terragri (Agriculture) (Tonnes)



Yields per Hectare



Milling - Cane Crushed and Sugar Production

