

Voluntary Report – Voluntary - Public Distribution

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Report Name: Load shedding and the Economic Strain on the Food Supply Chain

Country: South Africa - Republic of

Post: Pretoria

Report Category: Agricultural Situation

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Report Highlights:

The energy crisis, which has resulted in the declaration of a National State of Disaster, is causing disruptions and rising costs for the advanced and diverse agriculture and food sector in South Africa, which is heavily reliant upon electrification. While farmers of field crops and fruits are concerned about a drop in yields and quality as they are unable to keep to irrigation schedules, livestock and poultry producers are struggling to care for animals and are facing a backlog in slaughtering and processing of animal products. Across the supply chain, the struggle to continue operations and prevent a break in the cold chain is forcing many companies to purchase backup power sources, most often generators that are expensive to fuel. When backup fails or is implausible, spoilage and waste expenses mount. With load shedding expected to continue until at least 2024, the sector is anxious for solutions while South African consumers fear that increased costs will be passed down and exacerbate food price inflation

Background

South Africa is currently dealing with a major energy crisis as the power utility, Eskom, is implementing power outages known as load shedding, to avoid total collapse of the power grid. Although load shedding was first implemented in 2007, it surged in 2022 with more than 200 days of scheduled power outages ([see Gain Report: Load Shedding- The Achilles Heel of the South African Agricultural Sector](#)). Since the beginning of 2023, South Africans have been dealing with load shedding almost daily. In January 2023 (29 days of load shedding) power cuts occurred more frequently than in the 12 months of 2019 (average of 22 days of load shedding per month). The situation is not forecast to improve in the near future with significant outages expected to continue until at least 2024. On February 9, 2023, President Ramaphosa declared a National State of Disaster over the energy crisis.

Load shedding has a negative impact on the economy, leading the South African Reserve Bank to downgrade the projected GDP growth in January from 1 percent to 0.3 percent for 2023. The constraint in electricity supply increases overall output price of most goods and services. As the price of output and cost of business is higher as compared to international counterparts, this erodes the level of competitiveness for various South African industries.

While all parts of South Africa's economy and society are impacted by load shedding, the effect upon food production is especially pronounced. The agricultural sector requires the use of electricity for various activities such as pumping water, irrigation, processing, cooling packhouses, cold storage and animal slaughtering. Many food products require a cold chain all the way through to the consumer. Several businesses in the agricultural and food sectors are moving towards the use of back-up power such as generators for production, processing and maintaining the cold chain during load shedding, which adds significantly to the costs of doing business. Although the South African agricultural sector has faced a cascade of shocks in recent years, including drought, record high input prices, high feed costs, stringent market requirements, and a global pandemic, power outages are emerging as a major disruption.

Challenges Across the Food System

Agricultural Production

South African agriculture is advanced, with many farmers adopting precision agricultural practices and relying heavily upon mechanization, much of which requires electrification. Roughly ten percent of South African arable land, about 1.5 million hectares, is under irrigation for field crops and orchards. Due to load shedding, farmers have not been able to irrigate at ideal times or with ideal frequency. With 34 percent of production under irrigation, the sugar industry is expected to witness a substantial impact. The South African annual average sugar production value is about R5 billion or \$286 million, and the industry estimates that growers are set to lose about 14 percent of the total crop value if load shedding is not resolved. Other field crops under irrigation include 16 percent of maize, 15 percent of soya and 35

percent of wheat, which face similar challenges. In the fruit industry, some producers are beginning to report smaller fruit size due to interrupted irrigation.

The animal products subsector is also very sensitive to load shedding as it requires uninterrupted power supply. Astral, one of the largest poultry producers, reported that it has cut back on the production of 12 million broilers in 2023 and incurred substantial costs in maintaining some operations. A backlog in the slaughtering of poultry means that chickens are fed more (additional feed costs) and slaughtered at heavier weight which is not at market desirable weight and may be sold at a price lower than production costs. Numerous poultry die-offs have made news because of farmers' inability to maintain required temperatures at poultry houses.

Processing

Poultry farmers and businesses report that they are unable to slaughter at the normal average rate due to power cuts and processors have reduced the quantity of meat being processed. Milk producers and processors also report incurring loss of stock due to the quality of the product being compromised. One farmer reported to have disposed 11,000 liters of milk due to disruption in the cooling systems.

Post contacts noted that processing plants are largely installing new diesel generators with the hope of more efficient fuel use. One large plant is reported to have spent more than \$3.3 million on a new generator and to be spending an additional \$55,000 in daily fuel costs. The frequent shift in electrical input is said to be damaging some of the processing equipment. Due to the uncertainty surrounding load shedding stages, many processors are working to secure a significant emergency supply of diesel.

Food Retail Sector

As South Africa's load shedding continues, it has caused several issues in the food retail sector. Shoprite, the largest retailer in South Africa, claims that during stage five and stage six load shedding over the past three months, it spent \$33 million on fuel to maintain operations. Shoprite reported that despite much greater sales, margins were narrower as the company worked to protect customers from sharp increases in food prices and paid for continued load shedding-related operating expenses. Shoprite is one of an increasing number of South African businesses that are calculating the costs of the more severe load shedding that has affected the nation. Over the course of six months, the chain calculates that it spent R560 million, about \$32.7 million or \$200,000 every day to counter the impact of load shedding.

Soaring fuel price exacerbate the impact of load shedding and is reported by many restaurant owners to threaten the financial and operational stability of their businesses. Many restaurants have resorted to the installation and running of generators to power their storage spaces and kitchens, which is estimated to cost an average of \$60 an hour, up to \$420 a day if the restaurant is without Eskom-supplied electricity for seven hours. This represents a 34 percent increase in costs to the restaurant when compared to a load shedding-free day. When deciding whether to invest in generators to keep grocery stores open, owners

of these stores must weigh significant expenses and safety concerns. The price of a generator might reach a multi-million Rand for large grocery stores and require significant daily fuel costs. To fund these upgrades, grocery stores will need to alleviate the costs by passing them on to the consumer through increased prices.

Fast food outlets, which are frequently found in shopping malls, had a 40% decline in sales in January because of load shedding. Since most retail centers prohibit individual tenants from using their own generators, they are often unable to install them. This typically means a shutdown of operations during load shedding hours. With the cold chain interrupted for periods typically between 2.5 and 4 hours, the quality of the product is compromised, which may affect food safety and quality (for more information on the effect of load shedding on food safety in South Africa, ([see GAIN report: Prolonged Power Outages Raise Serious Concerns about Food Safety](#))).

Exports

South Africa is a major exporter of horticultural products, which often need to be maintained at low temperatures to meet market-required shelf life, taste, and quality standards. Additional costs required to maintain the cold chain during load shedding may limit the ability of South African products to compete in foreign markets.

Outlook

The South African Minister of Agriculture, Land Reform and Rural Development recently met with industry role players to discuss the challenges posed by the energy crisis on the sector. A task team was established to carry out an evidence-based report on the impact of load shedding so that the ministry and industry players can come up with evidence-based interventions in gaining resilience against this energy crisis.

In anticipation of prolonged load shedding, producers may shift towards renewable power sources; however, significant capital is required for this investment. This may exacerbate inequality across the sector, as those with greater capital and access to finance will be far more capable of weathering the crisis than those without these advantages. Load shedding-induced business closures, typically small to medium size enterprises in the food retail sector, have been recently highlighted in the media. Should the trend continue and bleed deeper into the supply chain, further consolidation within the agricultural industry may result.

On the production side, the energy strain on the agricultural sector may lead to lower agricultural output at higher prices, affecting the sector's competitiveness. Financial results of food companies indicate significant expenses incurred due to load shedding. While initial shocks of increased outages were somewhat absorbed by companies, protracted costs, such as recurring generator fuel costs, are expected to be increasingly passed on to customers. The higher costs may limit the competitiveness of South African products both in export markets and domestically.

South African consumers are expected to experience continued food price inflation in 2023, despite softening inflationary pressures globally. While food prices will be under greater inflationary pressures than many other consumer goods due to the power-intensive nature of cold chain maintenance, load shedding will continue to impact all sectors within South Africa. With greater demands on limited incomes, consumers may be forced to further scale back on food purchases, opting for more affordable product substitutes that may offer less nutritional value.

Attachments:

No Attachments.