

Voluntary Report – Voluntary - Public Distribution

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Report Name: Load Shedding- The Achilles Heel of the South African Agricultural Sector

Country: South Africa - Republic of

Post: Pretoria

Report Category: Agricultural Situation

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Report Highlights:

The enormous restraint on electricity generation and resulting power outages, locally known as load shedding, is emerging as a significant threat to South African agriculture. The cumulative hours of load shedding in the first seven months of 2022 already exceeds the annual record set in 2021. At the current pace, the total number of load shedding hours for the year could surpass 100 days. As an advanced agricultural economy reliant upon modern farming practices, the South African sector is not structured to withstand significant power outages. Although not yet quantified, the impact could be in the billions of dollars. As a result, profitability and sustainability of the industry are under threat and could limit future investments, which would in turn negatively impact food security, job creation and economic growth.

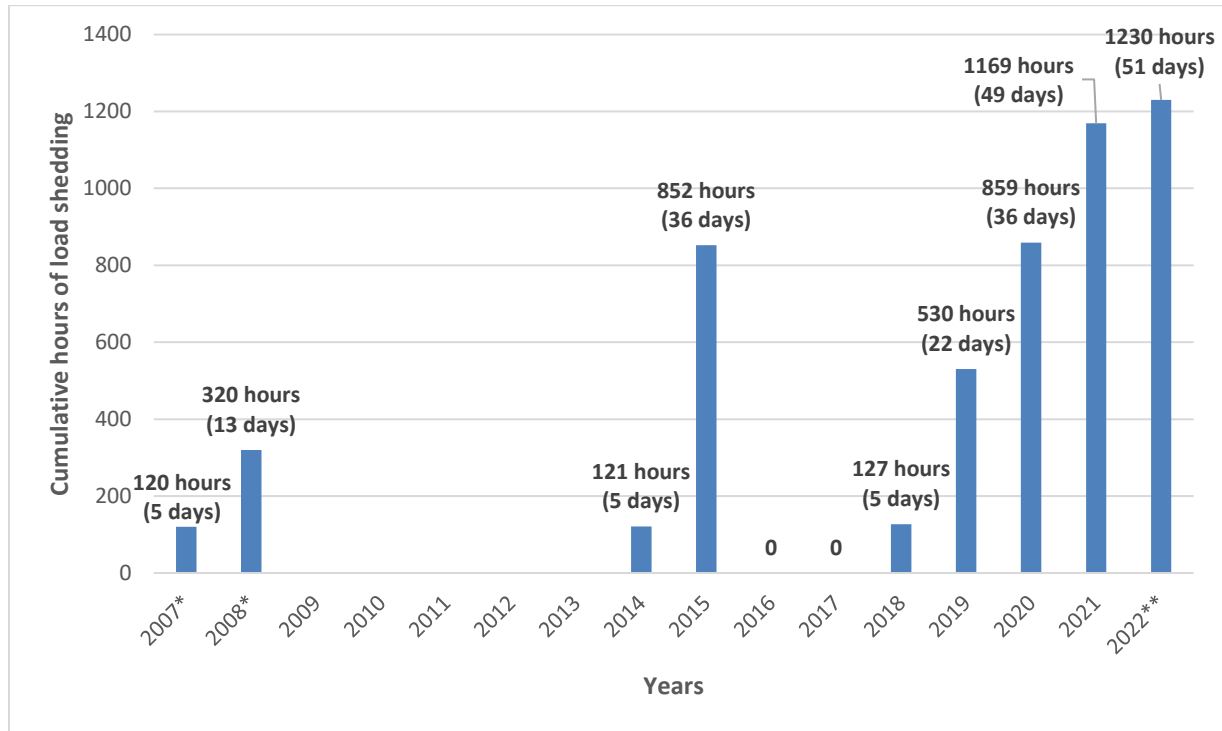
Background

The South African agricultural sector showed tremendous growth over the past two decades by almost doubling production. This positive trend translated to record agricultural exports of US\$12.4 billion in 2021 and grew the agricultural sector's contribution to South Africa's Gross Domestic Product. The upsurge in agricultural production can be attributed to new investments in the sector and producer's adoption of new production technologies, such as genetically engineered seed and more efficient and effective farming practices, including precision and conservation farming. These upgrades have led to greater profits, and greater profits have led to greater investments, creating a positive cycle that has led to an advanced and lucrative agricultural sector. While many countries are still reliant on low-tech farming practices, South African farmers, who have advanced techniques and equipment around the expectation of a reliable power supply are now beleaguered by the rapidly declining power grid.

South Africa's national electricity utility and state-owned enterprise, Eskom, developed the term 'load shedding', meaning power outages, in 2007, when it was unable to supply electricity to the entire country at the same time. At the time, Eskom announced that load shedding would continue until 2012 or 2014, and economists warned that the country's economy could suffer significantly as a result. Figure 1 illustrates the cumulative hours of load shedding in South Africa since 2007. Although loadshedding has occurred sporadically since its inception, it has now increased every year since 2018. The cumulative hours of load shedding in the first seven months of 2022 already exceeds the prior record set in 2021 and is causing unprecedented challenges for South African citizens and businesses. At the current pace, the 2021 record will be more than doubled this year and could reach 100 days of blackouts. Although a variety of reasons are given for the challenges facing Eskom, it is clear that the infrastructure is insufficient to meet demand.

Figure 1

Cumulative Hours of Load Shedding



Source: Council for Scientific and Industrial Research (CSIR), Eskom se Push (mobile app)

Notes: * Estimates

**Up to July 2022

The Impact of the Load Shedding on the Agricultural Sector

As an advanced agricultural economy, load shedding has a negative impact on the modern farming practices in South Africa. Although not yet quantified by economists, the negative impact could reach billions of dollars. Many businesses rely on generators during power cuts. However, this backstop is becoming increasingly unsustainable due to the dual challenges of increased fuel costs and the massive upswing in generator operation time to cover load shedding hours.

Irrigation, irrigation scheduling, and the application of fertilizer are all negatively affected by the unplanned load shedding disruptions. Power outages have a direct impact on water management practices in orchards for horticultural products. In many cases, water shortages cannot be corrected later and results in a loss of revenue for the entire value chain.

According to Agri Limpopo, a provincial farmer organization, unscheduled loadshedding is leading to significant mortality in the poultry sector, with one farmer losing more than 2,000 broilers in a single day. While loadshedding is typically scheduled, Eskom often announces

changes to the schedule with short notice, leaving farmers without adequate time to respond with necessary fuel procurement and delivery.

According to AgriSA, the major farmer organization in South Africa, “pumping stations, irrigation, cooling, and other systems all depend on power supply. While some farmers have the means to move away from the power grid, most are unable to do so. This is especially true for the most vulnerable small-scale farmers. Farmers forfeit their water quotas for irrigation purposes when the power is off – an irrecoverable loss that paralyzes farms.” The organization has noted that farmers are already reporting huge losses as processing machinery, irrigation equipment and other machinery are damaged due to power outages. Additionally, production costs escalate for farmers as they are forced to pay farm workers for additional hours of labor to catch up on lost time when power returns.

The impact of load shedding is not only at farm level but is felt throughout the entire value chain from farm-gate to the consumer's home. Many of South Africa's food is produced by sophisticated supply chains that is electricity dependent, like grains, dairy, meat, fruits, and vegetables. These supply chains are heavily impacted by load shedding. Most notably, load shedding is causing damage and disruptions to the cold chain, which is critical to ensure food quality, food safety and shelf life for highly perishable products. All pack houses, abattoirs, and cold stores are dependent on electricity. The general manager of the South African Poultry Association's Broiler Organization recently stated that abattoirs are forced to spend about R100,000 (about \$5,800) per hour during loadshedding to avoid prolonged outages that could result in food safety issues.

Furthermore, cold chain management forms part of formal and legally binding local and international phytosanitary measures. Temperature breaks in phytosanitary shipment protocols can disqualify products from eligibility for foreign markets, presenting a major risk for South African exports. In addition to putting exports at risk, the domestic food supply has already been impacted by cold chain challenges. AgriSA, the major farmer organization in South Africa, notified that some retailers are starting to reject fresh produce due to disruptions in the cold chains (also see [Disruptive load shedding poses long-term risks to the agricultural sector and economy — Agri SA](#)).

With costs rising across the supply chain, load shedding will exacerbate food inflation. Analysts fear that the situation may become more dire as South Africa transitions into summer. “This problem will only get more damaging in warmer seasons and will have a direct impact on food availability and an upsurge in food inflation,” AgriSA warned. Food inflation gained momentum in June this year with an escalation of 8.6 percent, compared to 6.0 percent in April and 7.6 percent in May. Higher food inflation is expected in the coming months due to the upsurge in energy costs and record-high commodity prices.

Electricity is Vital for Future Investments

Economic growth in South Africa is dependent on the availability of reliable and sufficient electricity supply. The strong growth in primary agriculture in terms of production sustains an equally strong secondary agribusiness sector. The manufacturing of primary agricultural

commodities and products into value-added food, feed, and fiber products is a robust, growing industry that adds great value to the South African economy. The agricultural sector is unfortunately directly constrained by the lack of available and reliable electricity supply. As a result, profitability and sustainability of the industry are under threat and could limit future investments that will negatively impact food security, job creation and economic growth.

Attachments:

No Attachments.