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CHICKEN DUMPING IN SOUTH AFRICA AND THE LONG-TERM EFFECTS ON LOCAL COMMERCIAL CHICKEN FARMING INDUSTRY: A REVIEW

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ABSTRACT

The aim of this article is to highlight the effects of chicken dumping trade on South African local commercial chicken farming industry. The high cost of farming in South African has risen and this has created a fertile ground for overseas countries where chicken production costs are low to intensify their exports to South Africa for their excess chicken products at a lower price. South African chicken farmers are already facing domestic challenges which includes high-cost feed, high cost of importing chicken lines and resources to produce the meat chicken. A local single fertilised Ross 308 / Cobb 500 Fertile egg cost at least R2.50 ($0.12), whereas international, local breeders source these genetic lines at over a $1 an egg. Locally, there is persistent drought, chicken diseases, high electricity cost and electricity shortages (load shedding). These challenges inevitably raise costs of chicken production in South Africa whereas the US, Brazil and EU countries farming industries are highly subsidised and experience no high electricity costs or load shedding. In perspective, imported chicken from Brazil cost R9 per kg as compared to locally produced chicken at R25 per kg. To mitigate the chicken dumping trade, the South African government imposed legally sound chicken import tariffs of up to 62 %, however in August of 2022, the government suspended these tariffs due to rising food costs in the hope that the cheap dumped chicken would provide a relief to the financially stressed consumers. This move has raffled feathers within the local chicken farming sector which is struggling to sustain their farms due to stiff competition with the low-priced chicken, predominantly from Brazil and the US. More chicken farms in South Africa are shedding jobs. As of 2023, the poultry industry in South Africa employs an estimated total of 70,000 people, and others are questioning the sustainability of their enterprises going forward if the chicken dumping in the country is not controlled via stringent legislation that include appropriate dumping tariffs. This article suggests that both the chicken farming industry, the chicken importers and the government should hold regular dialogs to get common ground before the majority of local chicken farmers close shops due to chicken dumping. The regular engagements between the government and the chicken industry could avoid seemingly unilateral suspension of import tariffs. Subsidies that could absorb some of the operation cost, as is the case with US or Brazilian farmers should be introduced.

Key words: Chicken dumping, chicken farming, sustainability, chicken production challenges

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INTRODUCTION

In the international trade context, dumping is the export of a commodity or a product at a price that is lower than the price in the destination country. The issue of chicken dumping is so prevalent in South Africa that the international trade definition has long been forgotten and the literal meaning of chicken dumping is being adopted by the local chicken and general poultry industry, especially farmers. The August 2022 announcement by the South African Ministry of Trade, Industry and Competition to suspend anti-dumping duties on chicken imported from countries such as Brazil, Spain, Poland, Ireland and Denmark, citing high cost of food prices for local South African consumers, provided a catch-22 situation where local chicken farmers and their associations saw it as the final nail on their struggling sector. The South African Meat Importers and Exporters Association, on the other hand, saw it as the best solution to curb high food prices [1].

Before elaborating on the causes or effects of chicken dumping on local chicken farming sector and possible mitigation options to combat this phenomenon, it is important to point out the negligence of local poultry researchers, whether scientific or social as there is limited coverage of this serious poultry industry topic. In a country like South Africa where many chicken farmers are at risk of shutting down, or shedding jobs that in turn threatens the sustainability of the industry due to chicken dumping, the mainstream research institutions in South Africa are mainly focusing on looking at alternatives to high priced soybean or fishmeal in chicken diets [2,3,4]. This is such an enormous challenge facing the poultry farmers and as such should also be prioritised by those whose research revolves around chicken or poultry as a whole as dumping phenomenon may soon transition to other poultry sectors in South Africa, if it has not yet started.

Environmental challenges brought by climate change such as drought are regularly being investigated and mitigated through research in South Africa, but the same cannot be articulated with regards to the chicken dumping effects on local chicken farming sector and its sustainability [5]. For every sustainability of an enterprise that is of economic importance, researchers and predominantly academic researchers are at the forefront to scientifically, economically or socially bringing solutions to what might hamper the growth of that enterprise. This was evidently demonstrated during the recent COVID-19 pandemic whereby swift action in terms of academic research into vaccine development was prioritised along with the usual epidemiological studies on new emerging diseases, as many economic activities including human existence was under severe threat [6].

Also, the South African mainstream media: television, print or radio, rarely put forward the issues affecting this multibillion ZAR industry that contributes heavily to

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the South African GDP, leaving the sector to rely on *online* outlets such as Business insider SA or *online* farmers' magazines which have low news consumptions compared to the aforementioned media houses.

The South African Poultry Association (SAPA)'s concerns regarding the sustainability of the poultry industry amidst chicken dumping storm are only limited to *online* or their social media pages with few TV or radio appearances where "breaking news" that contribute insignificantly to the economy gets preference as they are "news worthy". South Africans prefer economy worthy news as of 2023.

There is a phenomenon in South Africa where the root cause of what is perceived as a challenge or a problem is overlooked. This phenomenon in South Africa is exacerbated by lack of owning to the responsibility towards that challenge. In many cases the responsibility in dealing with the perceived problem end up being juggled between and amongst the stakeholders at the expense of consumers/lower class who often would have limited powers to contribute to that perceived problem. Lack of political will in South Africa might not necessarily be limited to the issue of resolving the chicken dumping saga, but with this poultry sector, especially chicken contributing heavily to the GDP (43% of animal product GDP) compared to other farming sectors, one would expect some favourable political solutions on the side of the local farmers. Chicken dumping is an invasive "pathogen" that could be avoided at the border through appropriate legislations brought forward by the foreign and international relation ministries because the farmers are already dealing with localised "pathogens" that are invested into the chicken farming industry with no cure in sight. The following "pathogens" are to be tackled one by one below before zooming into the invasive "pathogen", that is, chicken dumping; rising feed costs, drought, disease outbreaks, electricity cost and its shortages. This review paper aims to highlight the challenges faced by chicken farmers on a daily basis and also provide some suggestions in tackling chicken dumping phenomenon.

LOCAL CHALLENGES AND DISCUSSIONS

Brief background to South African poultry farming industry

Due to the scarcity of literature on this topic, most data were obtained from *online* news articles from reputable website sources. A 2014 report by the South African Ministry of Agriculture indicated that the poultry industry contributes significantly to the country's Gross Domestic Product (GDP) [7]. The sector has also been hailed as the largest in the agricultural sector, accounting for 22 % of the South Africa's agricultural income since 2011 [8]. Apart from its economy-boosting capabilities, the poultry industry is a nutritionally important sector to the South African populace, contributing an estimated two-thirds of all animal protein consumed. With the

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largest consumer market for poultry products, especially chicken meat (broilers) and eggs (layers) due to their general affordability, chicken products are an integral part of South African menu. To meet local demand of over 3 million tons of chicken per year and international demands for chicken meat products, the South African broiler production systems range from traditional simple subsistence farming with minimal production costs to highly sophisticated systems incorporating modern farming technologies that afford the local farmers to compete internationally [9]. Popular broiler lines in South Africa are Cobb 500 and Ross 308 with the Arbor Acres, Hubbard, and Hybro also gaining momentum in the local broiler farming arena [10]. All these broiler lines have foreign origins (USA, UK or Netherlands) and therefore the genetic materials used in breeding programs are mostly imported by local broiler breeders to supply the broiler farmers who cannot afford to produce large number of chicks on their own [9].

The general South African production and supply chain involved in the broiler sector involves international sourcing of suppliers of “grandparent” chicks of high-quality genetic lines and day-old “parents” are hatched. This is followed by rearing of parent’s chicks, eggs being laid and day-old chicks being hatched. Thereafter, there is an intensive feeding of the birds, then abattoir slaughtering, meat processing and distribution to centres and ultimately to the consumers. In this supply chain process, disease outbreaks, disease management controls and the intensive feeding, which in most cases account up to 75 % of the total production costs, are also factored in [9]. Locally, the chicken production is heavily depended on the price of maize which has been reported to account to 50 % of the feed and also soybean prices [9]. The prices of these agronomy products heavily depend on factors such as yield at harvest, drought challenges, fertilizers, pests and pesticides. Most of the above- mentioned components of supply chain depends on the electricity supply which can be very costly in South Africa and can literally be unavailable from the sole government electricity supplier to use to rear chicken, prompting usage of alternatives such as diesel generators. The electricity challenge is further unpacked in a sub-topic below in this article.

A simple glance at the supply chain involved in producing chicken in South Africa, from importing grandparent chicks to sourcing genetic materials, feeding and disease mitigations to electricity supply challenges, the cost of production compared to other countries is relatively high. This *scenario* of high-cost production is the first breeding ground for the overwhelming chicken dumping that is experienced in South Africa. Every country experiences dumping of some sort in their economic activities, but the unattainable production cost and differences in perspective between the farmers and the government has exposed the local chicken farmers to somewhat unfair competition from the international chicken

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dumping market. For example, The US, Brazil or Poland experience low cost to produce their chicken and as such they are entitled through the international trade framework to direct their excess produce to countries such as South Africa who are desperately in need to mitigate rising food costs to consumers [11]. To avoid this vulnerability, it is the duty of the South African government, who makes the final decision on the logistics of the quantity of chicken brought into the country, to engage with the local farmers through farmer support initiatives. The latter could curb high expenditure accumulated during the production line to fully compete with the cheap chicken landing at the South African ports.

Cost of chicken feed

Like in many animal farming enterprises, feed constitutes the highest expenditure (over 55 %) and the quality feed formulation is the major driver behind every successful chicken rearing business [12]. With South Africa being the largest commercial poultry-producing nation on the African continent, this automatically makes the country the highest and the biggest spender on poultry feed [13]. Based on the SAPA report and Nkukwana 's observations, South Africa is not faring well on global stage and struggle to remain competitive as profit margins are constantly hampered by feed costs, often surpassing 70 % of the local total production cost for a chicken farm [13,14]. Since the country relies on yellow maize and import most of its soybean due to low local harvests, their occasional price changes without sufficient notice makes it impossible to incorporate that cost in the prices of chicken products, thus ensuring that local profits continue to remain volatile [9].

All these local challenges with regards to feeds prices play in the hands of the main chicken dumpers such Brazil, European Union (EU) and the US. The aforementioned countries are known to produce million tons of cereal grains and other oil seeds such as canola which are utilised in poultry production and unlike South Africa poultry farming, these countries production are heavily subsidised by their respective governments [15, 16]. The high input feed cost in South African chicken farming industry has seen high number of medium commercial producers closing down and the recent droughts experienced by agronomy sector further weakened the South African economy to sustain these chicken producers.

Drought

As briefly highlighted above, South Africa has been experiencing persistent episodes of drought which remain a thorn in the side of cash strapped crop farmers who in turn cannot provide sufficient local grains to chicken feed producers. Drought is a silent chicken farming destroyer as this naturally occurring phenomenon is the least understood as compared to other natural disasters such as hurricanes that could destroy a farming establishment in a matter of seconds whereas drought is a slowly brewed disaster that takes it time to show its impacts

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[17, 18]. The Intergovernmental Panel on Climate Change (IPCC) coined a clearer definition of drought where they indicated that it is period of abnormally low precipitation usually in comparison with the long – term average climate of a particular region [19]. This phenomenon is long enough to severely impact hydrological resources, thereby rendering them unreliable.

In South African context, drought has already left a long trail of devastation on many sectors such as public water supply, energy production, tourism and agriculture sector, with agriculture often being the most heavily affected sector [20, 21]. In South Africa, the commercial chicken farmers and subsistence farmers experience drought risks and impacts differently. Mostly this is rooted in the apartheid history of the country (1948-1994) where developmental supports and economic reforms have and continue to favour and benefit the commercial white farmers who are largely exporters, exacerbating the difference in coping capacity in response to drought between the two groups of farmers [22]. Therefore, subsistence farmers, mostly black farmers are less resourced with fundamentally different risks profile and responses compared to the commercial farming sector [23].

It is worth stating that commercial chicken farming or commercial farming in general underpins South Africa's food security while subsistence farming provides income and food security on a household scale for much of the South African population. In 2020, the World Meteorological Organization produced a report that projected an increase in the frequency, severity and lengthy spells of droughts that would most likely to have a dire impact on both commercial and subsistence farmers growing rain-dependent crops which are particularly susceptible to drought as the farmers solely depend on climate-sensitive resources [24, 25]. This scenario will ultimately result in low grain yields which will impact both commercial and subsistence chicken farmers who depends on these grain crops.

Disease outbreaks

The most common disease challenge facing poultry around the globe is the avian influenza and South African Chicken farmers are not spared from the virus causing influenza. These viruses are molecularly segmented, negative-strand RNA viruses that are designated in the Orthomyxoviridae family in 3 respective genera which are Influenza A, B and C [26]. Only the influenza A viruses have so far been reported to cause natural infections in birds. Avian influenza viruses that usually infect poultry stocks worldwide are divided into 2 distinct groups according to the degree of severity of the disease they inflict. The highly pathogenic avian influenza (HPAI) is caused by the most virulent virus which have been described as a systematic infection which frequently results in 100 % death rates [27]. These

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particular viruses have thus far been mostly restricted to strains that belong to the H5 and H7 subtypes [28].

The South African Ministry of Agriculture in its 2022 update on the effects of avian influenza in the local poultry space indicated that the country was crippled with H5 and H7 infections which so far have been classified into low pathogenic avian influenza (LPAI) and the HPAI [29]. Both categories were previously reported to the World Organisation for Animal Health (OIE), but after major OIE guideline revisions, only the HPAI in poultry and other birds than poultry are reported to OIE. The only time when local LPAI are reported is when there is proof that the natural transmission with severe consequences in humans has occurred. In South Africa, any form of avian influenza is controlled and mitigated in terms of the Animal Disease Act, 1984 (Act No 35 of 1984) [29]. This would usually result in temporary trade bans on the export of poultry and their associated products. In 2017, the first case of HPAI (HPAI H5N8) was detected in a commercial chicken farm in South Africa. This was followed by 2021 detection of a HPAI H5N1, also in commercial chickens in seven of the nine Provinces of South Africa. When all these detections happen, all positive farms were immediately placed under quarantine with no movements (in or out) of the birds, eggs or other chicken products from the affected farms [29]. On the face value, this is a standard procedure to curb the spread of the viruses, however in a South African setting, this often spells trouble in terms of sustainability and future operations of those affected farms as the "invasive" chicken dumping usually proliferates opportunistically during the weeks or months of these local temporary farm closures.

The devastation of the avian influenza viruses on the local viability of chicken farming in South African is hugely profound, but in the midst of all that there are other locally recognised disease outbreaks with potential threats to the sector. To give a glimpse of other pathogens and diseases that are of significance in local chicken farming, a poultry disease review from the year 2000 to 2020 with much emphasise on the second largest Province in South Africa, Eastern Cape was conducted [30]. The review revealed a wide range of diseases that have in some cases caused extensive damage to the poultry industry in the last 20 years. The disease includes the Newcastle (103 cases reported), coccidiosis (37), fowl pox (18), avian leucosis (9) and other such as gumboro, *Salmonella enteritis,* avian infectious bronchitis which reported less than 5 cases [30]. Overall, 73 % diseases are of viral origin, followed by protozoal diseases (20 %) and bacterial diseases (7 %) [30]. This particular study observed that disease on communal farms was higher at 42.3 % than those reported on the commercial famers (38.5 %). Irrespective of number of cases reported, every episode of disease outbreak often results in farm casualties where some farms would operate on a restricted and

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lower production scale which would often translate into jobs being lost and production outputs severely impacted to provide affordable products to the local consumers. This again plays opportunistically into the hands of the chicken dumping business in South Africa. As of September 2023, South Africa is battling the worse highly pathogenic H7N6 in its history and millions chicken have been lost.

COST OF ELECTRICITY AND ELECTRICITY SHORTAGES

The *online* global economy project founded by Neven Valev has been a reliable source of information with regards to prices on all items in electricity bills in over 100 countries worldwide. According to Valev's data that were collected and compiled in June 2021, South Africa's electricity price of R2.558 pe kWh which is approximately 45c more than the global average of R2.109 per kWh [31]. With this scenario alone, the production cost of running a chicken farm where chicken houses need constant heating or cooling, the cost can grow exuberantly. A developing country with high poverty rate such as South Africa needs tons on chicken products every minute of each day, mainly due to the affordability of this commodity. The high electricity cost in South Africa would often trigger miner inevitable price increases on selected chicken products that are required by the local lower-class population of the society, especially the frozen chicken portions. The brutal nightmare of chicken dumping trade would often intensify during this periodic space created by the local increased prices for the chicken products, mostly targeting those frozen chicken products which are popular among the rural and township dwellers who forms the majority of South African populace.

The high cost of electricity and its impact on chicken farming in South Africa, comes nowhere near the cost of electricity shortage where the electricity is literally being switched off as the monopolised government electricity supplier cannot keep up on its electricity generation to meet the economic and general consumer demands. South Africa has been facing power cuts, more popularly known as load shedding by the sole government electricity supplier ESKOM since the beginning of 2008. As of December 2023, the electricity shortage epidemic has reached its deadly stage where up to 10 hours per day of no power is experienced by almost the entire country with economic important enterprises such as chicken farms not spared. The SA Poultry Association's broiler board has described the South Africa's worsening electricity crisis as a burden to the poultry industry with both farmers and abattoirs losing large quantities of chickens and money daily [32]. The association reiterated that farmers are substantively losing essential income because without power to heat the houses, chickens will not feed or drink and become vulnerable to opportunistic diseases. To maintain their operations, these businesses spend millions of South African currency (Rands) buying generators

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and diesel to stay afloat. The fuel prices have also been rising. This has been happening for the past 15 years and as a result, South Africa has become the ultimate destination of cheap chicken products from The US and Brazil in particular.

Compared to natural factors such as drought or diseases, electricity crisis in South Africa is a man-manufactured crisis that only the government can urgently remediate, otherwise the last commercial chicken farm will shut its doors as they cannot compete with the chicken dumping trade. As highlighted earlier, poultry farming contributes significantly to the GDP and greater job creation through its supply chain, but the industry is not exempted from load shedding. Understandably in November 2022, over 45 public hospitals in South Africa were exempted from load shedding. Other industries such as bottle-making companies in Bellville in Cape Town have also been exempted to protect the furnaces, which needs considerable amount of time to heat up to 1600 °C to produce these bottles. A car parts manufacturing plant in East London in the Eastern Cape Province has also applied and are currently being exempted from load shedding which has spared a nearby fish farm from being load shed as they share the same line. Judging by the Business Insider SA, poultry farms are not exempted from this load shedding epidemic, despite holding a key role in the economy of the country [32].

CHICKEN DUMPING/IMPORTS/EXPORTS IN SOUTH AFRICA

With so many localised challenges the chicken farming industry is already facing, the chicken dumping presents an enormous challenge to the already strained sector. Before the dawn of the new millennium, the US was regarded as the largest supplier of bone-in chicken to South Africa. However, the rising imports triggered the South African government in 2000 to impose a carefully drafted legislation which included antidumping duties on US bone–in chicken, which resulted in US exports to South Africa falling to almost nothing [33]. South Africa was then faced with a possible suspension of trade preferences under the renewed platform called African Growth and Opportunity Act (AGOA), the South African government agreed in mid- 2015 to allow a quota of at least 65000 metric tons of US chicken legs at a reasonable tariff rate of 37 %, which allowed the first delivery of chicken from US to enter South Africa in the first quarter of 2016.

The antidumping tariffs on US chicken by South African government to some degree alleviated the local farmers' fears that their business which already faced so much local challenges would struggle to maintain its existence. However, the US poultry industry vigorously argued in subsequent years since 2000 that the method used by South African in justifying its antidumping duties was in contravention of the World Trade Organisation (WTO) rules. According to US, the

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method used by the South African government was as a result of a calculation cost of production that ignored the fact that white meat in the US fetches higher price than dark meat. Faced with the continuous edge to export their chicken to Africa's highly industrialised economy in the midst of the antidumping duties, the US government decided to pursue bilateral negotiations based on the 2015 AGOA Act in the US congress. This was followed by a threat that South Africa would be excluded from the AGOA trade preferences unless South Africa relaxes its tariffs to let US poultry to enjoy a greater market access. South Africa's desire to remain in the AGOA which provide some relieve in duty-free access for significant exports of wine and citrus fruit and other commodities was the deciding factor. South Africa has since 2016 made provisions to allow more tonnage of chicken to be exported to the country from the US and other countries such as Brazil and the EU.

With all these import tariff negotiations at the governmental levels and subsequent suspension of import tariffs on chicken in August 2022, the South African farmers on the ground have long been feeling the heat from what they perceived as dumping and predatory trade in South Africa's poultry industry, especially from Brazil and EU. South African Poultry Association have indicated that poultry imports from Brazil have been rising in recent years as the official imports statistics show that in 2017 alone South African imported 524000 tons of chicken worth R5.9 billion. This was followed by a record of 539000 tons of chicken in 2018 worth over R6 billion. In both 2017 and 2018, more than 60 % of that chicken came from Brazil, which is the world's largest exporter of chicken meat, aided partly by the bird flu experience in the EU. The latest accessible report on chicken imports from the South African Poultry Association was released in March 2022 for 2021 imports [34]. The data showed Brazil accounted for 66.65 % (287,880 tons) of the chicken imports by South Africa, followed by the USA with 15.6 % (67,308 tons). Significant exports from the EU to South Africa were recorded from Spain and Ireland at 8.6 % (37,077 tons) and 0.2 % (852 tons), respectively. Other countries included Argentina which exported 23,715 tons (5.5 %) and Canada which landed 6,462 tons (1.5 %) of chicken in South Africa.

South African exports of chicken are mainly to its neighbouring countries where consumers typically eat less red meat. In 2021, 70 % exports of South African farmed chicken meat were destined for Southern African Customs Union (SACU) [35]. Compared to the exports by Brazil, USA or EU to South Africa, the SACU countries are in need of South African chicken as their chicken production cost are more than those experienced by South Africa.

Most local commentators suggest that South Africans consume roughly 25 million chickens per week and out of this, 19 million come from local producers with 6 million coming from abroad. Imports constitute nearly a quarter of local

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consumption and this exceed the output of any local chicken producer. The SAPA reported that chicken imports rose to 30 % of the local market which included the mechanically deboned meat (MDM), largely to both EU and Brazil which they have classified as predatory dumping to the detriment of local farmers and producers. By 2019, the SAPA indicates that imports were 5.5 % than the five- year average from 2013-2017. As indicated earlier, chicken is South Africa's cheapest and most popular form of animal protein and the demand keeps rising. However, these increased demands have been taken up by imports and local producers are suffering as importers grab a great share of the market. Before the August 2022 suspension of antidumping tariffs by South African government to combat increasing food prices, the SAPA had applied for an 82 % *ad valorem* import tariffs on bone-in and boneless frozen chicken from many non-EU countries, including Brazil.

Safeguard duties were then approved against all EU countries in 2018 where the rate was set at 35.5 %, reducing it to 30 % in 2019, then 25 % in 2020 and 15 % in 2021. It fell away entirely in March 2022. In 2020 the South African government granted tariffs of 62 % for the frozen bone-in chicken portions (up from 37 %) and 42 % for frozen boneless portions (up from 12 %) [36]. The tariffs applied to non-EU countries such as US, Brazil and Argentina. All these tariffs fell away as the South African government provisionally suspended import tariffs on chicken products in August 2022 in the hope of relieving the local consumers of the surge in food prices that have affected many countries. On the other hand, this placed the local farmers in a delicate situation as the local chicken importers have swept in to take control of the market with cheap chicken, putting the already struggling chicken farmers in a tense situation with job cuts already taking effect. Chicken from Brazil would usually cost around R9 per kg as compared to R25 per kg for the locally produced chicken.

The South African government has reinstated the imports tariffs on dumped chicken into South Africa in August 2023 after a 12-month period.

SUMMARY OF SHORT-, MEDIUM- AND LONG-TERM EFFECTS OF CHICKEN DUMPING IN SOUTH AFRICA

In the 12 months since August 2022 when the antidumping duties were suspended by the South African government, the industry faced distress by the steadily rising input cost and the length power cuts. In a short-term, the suspension of antidumping duties managed to stabilise food (chicken) prices for majority of impoverished communities. However, during that period when Brazil and other nations were allowed to offload as much chicken as possible into South African market, some farms that were reeling from the devastating effects of losing stock

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due to power cuts could not restart their productions. Most farmers laid off employees as their solution to stay afloat. However, in the long run, those who lost jobs and cannot contribute to the economy which is in deep decline, became dependent on the state's social grants that has become the government's biggest expenditure. Strict measures at such as antidumping tariffs could alleviate most devastations that are potentially brought by unrestricted chicken imports (dumping) in the country.

Despite many farmers facing the prospect of seeing their farms closing down due to challenges highlighted in this article, these local farmers are self-motivated by sheer love and dedication to what their sector means to South Africans who benefits directly or indirectly from the sector. The farmers would like to have regular round-table discussions regarding the many challenges facing the chicken farming industry, with the hope of finding a lasting solution for the sustainability of the sector. Unlike in many countries where farmers resort to protests against their political structures who impose laws and policies that might not be favourable to their smooth operation of their farms, South African farmers prefer to work on the ground and let political conundrums sort themselves out. The farmers mostly just provide their opinion through diplomatic channels afforded by the government. Indian farmers [37], Irish farmers [38], Dutch farmers [39] have in recent years protested against their governments on respective issues they felt their grievances were being ignored [37, 38, 39].

CONCLUSION, AND RECOMMENDATIONS FOR DEVELOPMENT

The aim set by the article to highlight challenges brought by the chicken dumping phenomenon were discussed. The discussions showed that South African chicken industry is already experiencing high volume of difficulties such as avian influenza and electricity shortages, which are capable of crippling the industry on their own. With the persistent of antidumping duties suspensions by the government, some sections of the farming communities are posed to close down thereby affecting jobs that should be contributing to the growth of the economy.

Based on the many challenges that have been highlighted in this review article, some are not as a result of government policies; however, government should consult extensively with chicken farmers and associated stakeholders with regards to issues that may be detrimental to the sustainability of the local poultry industry. With the antidumping legislation reinstated in August 2023, it is recommended that government and the South African Poultry Association hold monthly engagements to make sure that this is adhered to. As of September 2023, the main threat to the local poultry industry is the avian flu, and most resources should be directed towards the epidermic.

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A further reading regarding poultry value-chain description, more especially the broiler industry in South Africa, Garcia-Dorado *et al.* [40] is recommended.

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