A systematic study on stock theft contributory factors during the South African lockdown

Witness Maluleke (a)* Mandlenkos Richard Mphatheni (b) Sphamandla Lindani Nkosi (c)

(a) Senior lecturer, Dr, Department of Criminology and Criminal Justice, University of Limpopo, Office No. 4015, New K-Block, Sovenga, 0727, South Africa.
(b) Doctor of Philosophy, Criminology candidate, Department of Criminology and Criminal Justice, University of Limpopo, South Africa
(c) Doctor of Philosophy, Criminology candidate, Department of Criminology and Forensic Studies, University of KwaZulu-Natal, South Africa

ABSTRACT

Undoubtedly, stock theft increased in most South African provinces during the lockdown period, thus, the objectives of this study were to provide a systematic discourse using news aggregators and seminal authors on this subject to showcase stock theft realities, and to establish the contributory factors thereof. The non-empirical research design: Systematic review methodology was used to analyse grey literature and primary research studies peer-reviewed and published, restricted from 2019-2020, as the Coronavirus disease-2019 (Covid-19) pandemic swept South Africa by an elusive heavy storm, with 1998-2022 directed studies on this scourge, however, none sequential preference was adopted. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Critical Appraisal Skill Programme (CASP) were employed to ensure trustworthiness of the findings of this study. This study establishes that the current nature of policing in South Africa is regarded as one of the notable root causes of the stock theft problem and this crime will continue to hike during the lockdown and post-lockdown periods if concerted steps are not taken urgently by the top echelons of the South African Police Service (SAPS), their actions against this practice is currently compromised or emasculated, and the consequences are clear to see. This study recommends that to effectively respond to the identified study themes; an active discourse relating to the contributory of stock theft during lockdown should be prioritised by the South African government. This multi-agency approach should include reporting of this crime, brand-marking and tattooing of livestock, embracing technological advancements to combat it effectively.

Introduction

Stock theft is refered as a property-related crime, within a scope of crimes during which tangible property of an individual or institution is taken by criminal elements without permission, and in the absence of the owner/custodian of such property (SAPS Crime Statistics, 2021). The Institute of Security Studies [ISS] (2013) defines suggests that this term “consists of the stealing of stock or produce belonging to another person.” This practice affects the livestock industries in all nine provinces of South Africa, with stock theft being a priority crime in most of the provinces. This crime is not a unique problem that is confined to South Africa or even Africa (Lombard, 2015). The affected Nine (09) South African provinces, are as follows: KwaZulu-Natal (KZN), Eastern Cape (EC), Free State (FS), North West (NW), Mpumalanga (MP), Limpopo (LIM), Northern Cape (NC), Gauteng (GP) and Western Cape (WC). Therefore, promoting agriculture is vital for addressing the issues of poverty in rural areas, low employment rate, insufficient food and natural resources’ sustainability (Shiimi, 2009; and Sehar, 2018) (in Mabunda, Maluleke, Barkhuizen & Clack, 2021). A finding that was very captivating is that the analyses of livestock sector policies are fully in agreement that anim
Consequently, the rise of demand for animal products maybe in line with the augmentation in the consumption of protein, specifically in countries that are developing, plus a bigger public health awareness in developed countries which lay a foundation to promote marketing opportunities (Horsthemke, 2009; Bahta & Bauer, 2007; and Sehar, 2018) (in Mabunda, et al. 2021). Basically, the production of livestock is a substantial agricultural enterprise in South Africa. For instance, almost eighty percent of South Africa’s agricultural land is largely appropriated for farming extensively in livestock production; while other farming business equally combine livestock production. However, the livestock number varies in accordance with conditions of the climate; consequently, producers concentrate mostly on breeds that are developed, as they are more adapting to different weathers and environments. It has been noted that forty-nine percent of agricultural outputs are contributed by this sector in South Africa. Up to eighty-five percent (85%) of meat requirements are usually produced in South Africa, while just fifteen percent are imported from Europe and other countries such as Botswana, Namibia, Swaziland, New Zealand and Australia, (South African Government Information - SAGI - 2010; and Sehar, 2018) (in Mabunda, et al. 2021).

Furthermore, agriculture in South Africa remains an essential sector despite its relatively small contribution to the Gross Domestic Product (GDP), Agriculture South Africa [Agri SA] (2016). The sector plays a vital role in many aspects, and amongst them is the creation of jobs, particularly in rural areas. It is also the foremost earner of foreign exchange, Department of Agriculture Fisheries and Forestry [DAFF] (2019). According to Phillips (2014), primary agriculture contributes a small amount of 2.5% to South Africa’s GDP and contributes about 8% to formal employment. Phillips (2014) highlights that the agricultural sector has strong links to the entire economy, with the agro-industrial role sector contributing about 12% to GDP. However, from 1975 to 2012, there has been a steady decline in employment in the agricultural sector (DAFF, 2013). The total employment declined from 1 433 500 in 1975 to 661 000 in 2012 (DAFF, 2013). Many aspects might cause a decline in the sector, including stock theft, climate change, structural change in agriculture, and uncertainties caused by land reform programs, amongst others. Plainly, projections show that there will be nine billion people globally by 2050 (United Nations, 2019).

The aforementioned implies that more food needs to be produced to meet this growing population. It is also estimated that a 70% increase in food levels will be needed to meet the global demand by 2050 (Ali, Carlile, & Giasuddin 2020). South Africa being a globalised nation and a significant player in international trade, has a responsibility to contribute to the global food supply to develop its economy. However, South Africa witnessed an employment decline in the agricultural sector over the years. Accordingly, the livestock industry is one of the industries that contribute substantially to the agricultural GDP and, ultimately, the food security of the country (Meissner & Smith, 2013). The Red meat industry employs about 500 000 employees and 2 125 000 dependents South African Meat Industry Company [SAMIC] (2002) and DAFF (2010).

According to DAFF (2006), the majority of small-town economies and their associated peri-urban communities are partly dependent on the money spent by small-scale and commercial livestock farmers. Despite the livestock industry’s contribution to the country’s economy, it also faces many challenges, including unfavourable economic conditions, climate change, reduction in intensive livestock management systems, conversion of livestock rangeland areas to the game, and a larger extent, stock theft. Conceivably, apart from these discernible challenges in the livestock industry, the implementation of lockdown as a response to the spread of Coronavirus disease-2019 (Covid-19) in South Africa has had adverse effects on the industry and subsistence livestock farmers. The Chairperson of the National Stock Theft Prevention Forum (NSTPF) and Second Vice Chairperson of the Red Meat Producers’ Organisation (RPO), Mr Willie Clack, revealed that stock theft increased immensely when movement constraints were loosened under Level 3 of the Covid-19 lockdown in South Africa (Erasmus, 2020). In another article, Dayjami (2020) mentions that the EC Safety Minister, Weziwe Tikana-Gxothiwe, informed the parliament that about 5 636 stolen livestock in the EC from the month of the first lockdown in South Africa, March 27 to June 22. Hence, these challenges led all agricultural stakeholders in the country to put more pressure on scientists to come up with solutions to mitigate a seemingly cataclysmic issue, and among the solutions is Research and Development (R&D). Research and development and innovation by different scientists highlight the extensive use of technology to increase food production and solve many problems faced by the industry.

From a qualitative standpoint, the non-empirical research design: Systematic Review was employed. The objective of this study was to paint a ghastly picture of stock theft in South Africa, focusing on South African news aggregators to reveal the contributory factors to this scourge during the lockdown period, restricted to 1998-2022, not in sequence, demarcated to the relevant studies on this subject. This data collection method was supported by the citation of seminal researchers (2019-2022) on this niche study area. This review was conducted to reveal the contributory factors to this crime this period. The significant of this study heavily rely on the fact that limited research studies have been conducted on this topic. Thus, it is envisaged that this study will be beneficial to all the ‘Anti-Stock theft structures’ by helping them to improve and enhancing their combative, preventive and investigative strategies geared towards effective policing of this crime.

Moreover, the following section provides the problem statement, consulted literature studies, the adopted methodology and thematic identifications and discussions based on a recollection of the section covering literature review, this was done to showcase present true and accurate picture of what was claimed by the consulted authors, as referred to in the Six (06) identified study themes and challenges, namely:

i. The nature of stock theft during the lockdown period in South Africa.
ii. Probable stock theft contributory factors during South African lockdown period.
iii. Restricted patrolling of livestock farms in South Africa.

iv. Ignorance, limited livestock branding and tattooing in South Africa: Pre-and-post the lockdown period.

v. The inadequate use of technologies to combat stock theft in South Africa: Pre-and-post the lockdown period (Noted financial implications of the livestock tracking systems and willingness and intensity to adopt livestock tracking device).

vi. Notable economical value and costs of livestock in South African contexts: Pre-and-post the lockdown period.

According to the South African ‘Farmers’ Origination (2020) (in van der Walt, 2020), there has been an increase in the theft of agricultural commodities, such as *livestock* and Maize, since the beginning to the lockdown period to contain the spread of Covid-19. Provincially, stock theft remains extremely high in the EC Province, this crime on the rise during lockdown. The 2019/2020 stock theft statistics, shows that while this crime decreased by 4.2% nationally, it has increased by 1% in the EC Province,” Citizen (2020). In addition, the EC Member of Executive Committee [MEC - Weziwe Tikana-Gxothiwe] (in Dayimani, 2020), reveals that 5636 animals were stolen between March 27 and June 22. During the same time period, 228 people were arrested for stock theft. According to the Democratic Alliance (DA), the increase in stock theft is due to the inability of farm watch patrols to take place during lockdown. The value of the stolen animals is estimated to be R17.197 million. Moreover, blame on increase of stock theft cases in South Africa in general and the EC Province specifically is linked to lockdown regulations, which prohibited people from moving to other provinces or areas in the regional arena. During this period, the Farm Watch Patrols did not take place.

As a consequence, the News24 (2020) reports that the EC livestock farmers are battling a surge in stock theft during the lockdown period aimed at curbing Covid-19 infections. In response, the EC Safety MEC Weziwe Tikana-Gxothiwe told the legislature this week that, between 27 March and 22 June 2020, 5 636 animals were stolen in this province. During the same period, 228 people were arrested in connection with stock theft. The MEC was responding to written questions from the DA’s Bobby Stevenson (2020) (in News24, 2020), who established that the stolen animals were worth a combined amounted to R17.197 million. Stevenson blamed the spike on the lockdown regulations, which prohibited the movement of people. He (Stevenson) said that because of the lockdown, Farm Watch patrols could not take place. “In contrast, there was a decrease in stock theft over the December and January holidays. This was ascribed to a multi-disciplinary approach, which included patrols by commercial and emerging farmers,” affirmed Stevenson (2020) (in News24, 2020).

As a result, van der Walt (2020) confirms that relevant stakeholders in the agriculture sector have expressed concern about the increase in theft of agricultural commodities during the lockdown period for the Covid-19 global pandemic, resulting in millions of rand in losses. Tommie Esterhuysen, The Chairperson of Agri SA’s Centre of Excellence for Rural Safety (2020) (in van der Walt, 2020), told Farmer’s Weekly that there had been an increase in the theft of agricultural produce in particular, such as Maize in the FS, Oranges in LIM, and Grapes in the WC, stock theft across 09 provinces of South Africa included. This crime increased during the lockdown period, almost doubled in the areas of the Northern FS to the South of GP, also affirmed by the NSTPF Chairperson [Clack]. This increase is attributed to the reduction in the movement of farm patrols, brought on by the lockdown, which ‘created a climate for crime to occur.’ Subsequently, “Bakkie loads of produce are being stolen, which gives us an indication that the theft is not due to hunger, but rather [For] trade.” It is estimated that the losses to the industry ran into millions of rand, adding that it placed additional pressure on producers during a difficult time in which they were faced with high input costs and low producer prices.

Importantly, while refocusing on stock theft, a particular increase in the theft of Cattle during the period had been observed, and that it was not *Potslagting* (Slaughtering for consumption), but several incidents suggested the involvement of organised crime syndicates. According to the Transvaal Agricultural Union of South Africa [TAU SA] (2020) (in van der Walt, 2020), it was clear that criminals did not heed the lockdown regulations, and farmers were increasingly falling victim to these transgressions. What is of further concern is the explicit prohibition by the Minister of Police [Honourable Bhekukwakhe ‘Bheki’ Hamilton Cele] on ‘Farm Guards and Community Policing Forums (CPF}s’ continuing with their regular patrols and crime prevention actions … With the police now focusing on other areas, it means that rural areas are currently unprotected. Criminals know this and are abusing the situation. Therefore, the local livestock farmers are highly advised to increase vigilance on their respective farms, as the power of Farm Guards lies in the co-operation between role players, effective communication, covering [Other] significant areas than just their own farms, as well as patrolling public roads, which are often used as escape routes. These farmers are urged to continue carrying out farm patrols and to ensure that they had sufficient security to protect themselves and their produce and they are also called on farmers to report any theft to the police so that there was a record of the frequency and nature of the theft.

In addition, the Minister of Police [Cele] (in Pijoos, 2020) highlights that “stock theft is a serious problem that requires serious attention, not just from us as police, but from other departments that can assist in combating this crime,” (Pijoos, 2020). For a recourse, the Citizen (2020) shares that that “incorporating new technology, such as a Drone cameras with infrared and night vision, could also play a significant role in catching stock thieves. (Geldenhuys, 2019) (in Maluleke, 2020) supports this call by indicating that Drone technology has presented law enforcement with prime examples of both sides of this coin, it appears that at this stage, the positives outweigh the negatives. Although this technology can be dangerous in the wrong hands, they are also a valuable tool for Law. It is equipped with high definition, live feed video cameras, thermal infrared video cameras, heat sensors and radar which all allow for sophisticated and persistent surveillance. They can record video or still images in daylight or infrared. They can also be equipped with other capabilities, such as cellphone interception technology, as well as back-end software tools such as licence plate readers,
face recognition and Global Positioning System (GPS) trackers. There have also been proposals for law enforcement to attach lethal and non-lethal weapons to Drones.

This study adopted the non-empirical research design: Systematic review. Dan (2017) states that this research design is meant to review progress in a specific study field [Systematic review on South African news aggregators showcasing stock theft realities during the lockdown period]. While, this research design aim to identify, evaluate and summarise the findings of the reviewed research studies by making available evidence more accessible to decision-makers (Yannascoli, Schenker & Baldwin, 2013) and Bwanga (2020).

To develop understanding and obtaining the relevant information on this subject, the collected data stemmed from relevant websites such as notable South African news aggregators, ResearchGate (RG), Science.gov, PubMed, and Mendeley, moreover, the following electronic databases - Google Scholar, EbcoHost, Emerald Insight, Jstor, ProQuest, Sabinet, Sage Online and Science Direct, were also visited (Maluleke, 2020), following set predetermined steps of this research design. Keywords were used to obtain relevant information on this subject, using non-probability: Purposefully sampling. The analysed grey literature and primary research studies from the indicated peer-reviewed and published databases were restricted to 2019-2020 seminal South African news aggregators’ report on this subject, as Covid-19 gained recognition in South Africa, other literature studies [Demarcated to 1998-2021 – Not in order of importance and sequence] were cited to support the commission of this scourge, while exercising the exclusion and inclusion criterias throughout this process. The PRISMA and CASP were employed to ensure trustworthiness, relevance and examine the study findings.

Therefore, the objectives of this study were Two (02) folded, designed as follows:

i. To provide a systematic study on South African news aggregators showcasing stock theft realities during the lockdown period, 2019-2020, with non-sequential support of seminal authors on this research niche area, 1998-2021 projected focus.

ii. To identify thematic contributory factors to stock theft during lockdown in South African contexts.

Review of literature

Seminal studies on stock theft during [South African] period

Ludolph (2022) highlights that selectively, stock theft not only costs EC R1.4 billion a year, it also affected them economically, as well as their health and wellbeing, while many of the victims are are elderly livestock farmers, summarily the wave of stock theft hit agriculture industry during the lockdown period. The Clack (2022) (in Pillay, 2022) shares that commercial livestock theft directly affects future economic, agricultural activities and threatens the food security of the South African population. Where previously people might have stolen predominantly for the pot, lately; there are groups that have latched onto stock theft as a way of enriching themselves. The number of cases not reported to the police was increasing at an alarming rate and resulted in a skewed picture of the rate of livestock theft in South Africa. It was important the non-reporting of the crime was put into perspective.

Clack (2022) (in Pillay, 2022) adds that economically the crime affected the business enterprise of every livestock producer, irrespective of whether the producer was a commercial farmer or small-scale farmer, and was the most significant obstacle in sustainable livestock production and food security. The small-scale agriculturalists are even more severely affected by livestock theft than commercial farmers, based on the economies of scale. It has been found that 85% of victims of all reported livestock theft in the country are either non-Value Added Tax (VAT) registered and communal farmers. (Zantsi & Nkunjana, 2021) highlights that stock theft is among the major challenges faced by livestock farmers in South Africa. It has severe consequences especially for smallholder farmers, who collectively own a large share of the South African livestock herds but individually keep small herds, lockdown period included. This crime is deeply rooted in history and is not limited to a specific continent, country or region. The study conducted by (Maluleke, Shandu & Makhanya, 2021) on ‘exploring the nexus between poverty, livestock looting and violence sprees: Provincial focus on South African civil unrest’ establish that this lucrative sector was targeted by opportunistic large organised criminals during the South African lockdown period, further casting fears to the local livestock farmers. The Cattle, Chicken, Goats, Pigs and Sheep were looted during this point of chaos in the two mainly affected provinces of South Africa. Around 20 billion of damage is currently estimated thereof. It is also provided that this was caused by the political and economic shortcomings in South Africa. This study also showcased that the informal livestock traders should not be demolished in the wake of unrest to avoid compromising food accessibility for millions of vulnerable consumers and depleting their reliable source of income for street vendors who rely on such consumers for survival.

For a long time, this phenomenon, which has no geographic reference, manifests itself in various scales and dimensions (Aiyzhy, Mongush, Mongush, Ondar, Seden-Khuruk & Bildinnaa, 2021). Felix (2020) (in Maluleke, 2021) reveals that the neighbouring Southern African Development Community (SADC) countries contributes hugely to the commission of this crime. It is stated that the commission of stock theft across the South African and Lesotho borders has been occurring for many years, the available borders are said to be porous and poorly protected, larger parts of the securing fences are often cut-off nor stolen, with the responsible Law Enforcement Agencies (LEAs) having difficulties to monitor mountainous terrains; this lacuna provides livestock trafficking/smuggling routes and opportunities for and potential criminal networks.
The Covid-19 pandemic and resultant national lockdown in South Africa have produced a plethora of negative socio-economic consequences. Amongst these is a wave of crime against the country’s farmers. The government’s consistent failures have this problem significantly worse. Furthermore, stock thieves took advantage of the lockdown, but the biggest culprits are the women and men who sell the meat of stolen animals on urban sidewalks. It is really frustrating that the thieves [are often] known to the police and communities, but there is little they can do as the South African law wants the thief to be physically seen in action [While committing a crime]. According to Clack (2021) (in Phillips, 2021), stock theft during Level 5 of the national lockdown was about 80% lower than over the same period in recent years. As movement restrictions eased, it increased to the point that during Level 3 it was at an “unprecedented” level: about 15% above the average. Inequality is the largest driver of property crimes, and South Africa is the most unequal country [in the world]. The current economic crisis due to COVID-19 is not helping. A fact that must always be borne in mind is that [with Covid-19 infecting police officers, we have seen the closure of police stations, SAPS STUs and other crime-fighting entities. The criminal justice system doesn’t have the resources to deal with the current crime wave (Phillips, 2021).

While Covid-19 has not had an impact on all crime types, statistically significant change has been identified in a number of cases [including stock theft - Researchers’ emphasis]. Depending on the crime type, the magnitude and direction of the change in frequency varies. It is argued that (mandated) social restrictions, shifted activity patterns and opportunity structures which are responsible for these findings. Furthermore, changes in the frequency of particular crime types during the COVID-19 pandemic are witnessed. This is important for the Criminal Justice System (CJS) and social service practitioners when operating within an extraordinary event (Hodgkinson & Andresen, 2020). The results of the study conducted by Lidén (2020) indicates that the major impact during Covid-19 was based on their working methods, with transitions to using more online methods and increased remote working [This cannot easily combat nor prevent stock theft], while the smallest impact was noted in relation to the working character, including crime [Stock theft in this regard] and evidence types which have remained relatively constant. Whereas, (Pasiwe, Earl-Taylor, Sinefu, 2021) reveal that during night-time livestock were stolen at grazing camps, while some from individual household kraals. Livestock was sometimes stolen from grazing camps during day-time hours and slaughtered on the spot in the absence of the shepherd.

**Trends of stock theft in South Africa**

Cases of stock theft reported to police officials for the 2017/2018 financial year have increased by 7.2 compared to the previous financial year report. The released crime statistics indicated that for the financial year of 2017/2018, more than 28 800 stock theft reported cases, that is an increase of 1 947 of 26 902 reported for the previous financial year (Phillips 2018). The statistics further showed an increase in stock theft across all the provinces of South Africa compared with 2016/2017 crime statistics. The increase is illustrated on the table bellow. Although the KZN Province accounts for a high level of stock theft, the highest number of reported stock theft cases are found in Mthatha (274 cases), Maluti (258 cases), Sulenkama (248 cases), and Qumbu (227 cases) (Phillip 2018). Notably, all of these towns that recorded the highest number of reported stock theft cases are found in the EC Province, and they are neighbouring towns found from the same route on the N2 of the national road. Cases of reported stock theft to SAPS increased by 2, 9% in the 2018/19 financial year compared to the 2017/18 (Lombard 2020). The number of reported cases to the SAPS of stolen livestock for the 2018/19 financial year include Cattle at 4, 48%; Sheep at 10, 86%; and Goats at 12, 98% (Lombard 2020).

The number of stolen animals increased in South Africa. The stock theft reported cases increased by 18, 8%, and animals stolen by 26, 5% in the financial year between 2014/15 and 2018/19 (Lombard 2020). In the EC majority of Sheep were stolen, followed by the FS. In contrast, most Cattle were stolen in KZN, followed by FS. The EC and MP on third place for a large number of Cattle stolen and in each province, over 10 000 heard of Cattle stolen. KZN’s leading largest number of Goats stolen, followed closely by NW. The NSTPF [2020] (in Lombard, 2020) report that 191 herds of Cattle, 278 Sheep, and 133 Goats in South Africa are stolen daily. The daily cost of livestock is estimated to be the amount of R3 406.435.

The Chairperson of the NSTPF [Clack], indicates that an average of 251 Sheep, 182 Cattle, and 117 Goats were stolen daily (Phillip 2018). Recently [2020-2021], the SAPS Crime Statistics (2021) shows the following disturbing numbers regarding stock theft, showcasing the second quarter of 2021/2022 financial year (July to September 2021). From figure 1-3, it can be further deduced that while all Property Related crimes decreased by 6.2%, the local SAPS continued to clamp down on Stock theft, which recorded a decrease of 9.2%. If a comparison was made to the normal period of 2019/2020 this would have resulted in a 15.4% decrease in stock theft cases. Overall, stock theft decreased by 9.2% with declined cases in seven of the country’s 09 provinces (South African Government, 2021). This further reads with figure 1, 2, and 3 herewith:
Figure 1: Stock theft trends over Three-month (October-December 2021) period in South Africa; Source: SAPS Crime Statistics (2021)

Table 1: Stock theft data for the three-month (October-December 2021) period in South Africa

Table 2: Stock theft top 30 police stations in South Africa

Source: SAPS Crime Statistics (2021)
Thematic identifications and discussions

The nature of stock theft during the lockdown period in South Africa

The associated complexities of stock theft can no longer be ignored in South African contexts. This sector agricultural sector remains pivotal for the local sustainability of livestock farming practices. As presented by this study, an outbreak of 2019 Coronavirus Diseases (Covid-19) in Wuhan, China has spreaded quickly worldwide. This forced the President of South Africa [Honourable Matamela Cyril Ramaphos] to declare a National State of disaster on the 15th of March 2020, further announcing strict measures to control this catastrophe, this was followed by the national lockdown submissions on the 23rd of March 2020 to commence on the 26th of March 2020. Negatively, the agriculture sector has been deemed vulnerable, and police expressed concern with crime aimed at the agriculture sector during the lockdown period (Baloyi 2020).

A political party, Freedom Front Plus (FFP), called for attentiveness in rural areas and requested the neighbourhood watch group to operate to provide security and guardianship to the livestock. In the agriculture sector, particularly when the Disaster Management Act (No. 57 of 2002) has been invoked, it is significant to work closely with police officials to provide additional security against criminals. Several people were arrested for livestock-related cases in the EC during the lockdown period. King William’s town Police arrested four people on suspicion of stock theft from a farm in Jeffrey’s Bay on 30 May 2020 (Baloyi 2020), and the investigation led to the arrest of suspected individuals and the vehicle's confiscation to transport discovered Sheep (Baloyi 2020). Moreover, suspects were detained with an additional charge of contravening the Disaster Management Act, 2002 (Baloyi 2020).

Jonckie (2020) highlights that the office of the Provincial Commissioner EC Province reported that on 07 August 2020 stock theft-related case was reported in Maclear from a farmer in the Maclear jurisdiction (SAPS, 2020). The reported case included 25 stolen Sheep with a value estimated at R45 000. Thirteen skin of Sheep and heads were found at a dumpsite, and the meat was found in plastic bags in a fridge in the suspect's house. Four suspects were arrested concerning this crime. In support to this submission, Jonckie (2020) reports that in the EC Province - King William’s Town, while majorith of South Africans were still confined to their homes: Swift police response by Humansdorp K9 and Jeffrey’s Bay police led to the arrest of Four (04) suspected stock thieves shortly after they loaded Five (05) Sheep in a bakkie from a farm near Jeffrey’s Bay on Saturday, 30 May 2020.

It is reported that at around 2:00, it is alleged that a farm owner contacted the police after he noticed suspicious people on his farm. Excellent teamwork between Humansdorp K9 and Jeffrey’s Bay police led to the arrest of the suspects traveling in a red Mazda Rustler bakkie on route R102 towards the direction of Jeffrey’s Bay. On the back of the bakkie, police found 05 Sheep with their legs
tied with wires. A preliminary investigation led to the recovery of additional nine Sheep also tied and hidden near the farm. Unfortunately, from the recovered stock of Fourteen (14) Sheep, two were already dead. The estimated value of the stock is R53 800. The 04 suspects were arrested and a bakkie was confiscated for further investigation. They were aged between 20 and 50, were detained for stock theft with an additional charge of contravening the Disaster Management Act, 2002 in relation to Covid-19 lockdown regulations. The EC SAPS Provincial Commissioner Lieutenant General (Lt Gen) Liziwe Ntshinga commended the members for the recovery and success, Jonckie (2020). This verbatim warning was shared in this regard:

“We continue to discourage those who buy stolen meat, thus creating a supply and demand structure for stock theft. Police will have no option but to arrest the seller and the buyer for being an accessory to committed crime.” Jonckie (2020).

The ISS (2020) reveals that generally, the lockdown regulations undoubtedly contributed to these sizeable reductions. This has been the experience of many high-crime localities around the world since the Covid-19 outbreak. In Latin America for example, lockdowns saw murder fall by 56% in Colombia and by 43% in two of Mexico’s states. While, in South Africa, restrictions on movement and the sale of alcohol, together with a heightened police and military presence in high-crime areas, played a role. It is also likely that decreases in some crime types were the result of victims being unwilling or unable to report offences to police. Phaliso and Harvey (2020) notes that there has been a ‘massive surge’ in stock theft in the EC in the 2020 EC. Figures provided by the Transport, Safety and Liaison MEC - Weziwe Tikana-Gxothiwe to DA MPL Bobby Stevenson in a written reply show that from March 27 to June 22, 2020 5,636 animals were stolen. This number included 4,480 Sheep, 700 Goats, 411 Cattle and 45 Horses. At an average of R2,500 a Sheep, R1,200 a Goat, R12,000 per head of Cattle and R5,000 per Horse, the estimated combined value of stock losses is R17,2 million. On this note, Stevensons (2020) (in Phaliso & Harvey, 2020) highlight the following in verbatim:

“In contrast, there was a decrease in stock theft over the December and January holidays. “This was ascribed to a multidisciplinary approach, which included patrols by commercial and emerging farmers. However, during lockdown farm watch patrols were not allowed, and this could be one of the significant reasons for the spike of stock theft over this period, stock theft remained ‘extremely high’ in the EC.”

The 2019/2020 crime statistics show that, while nationally stock theft has declined by 4.2%, the EC has seen an increase of 1%. "There have been some positive developments, which include the allocation of 33 new vehicles to the SAPS Stock Theft Units (STUs) in the province. “We also welcome the arrest of 228 individuals in connection [With] stock theft between March 27 and June 22 2019/2020 reporting period. The DA will be monitoring the extent to which these individuals are successfully prosecuted,” hinted Stevensons (2020) (in Phaliso & Harvey, 2020). The livestock farmers, meanwhile, welcomed the sentencing of these Two (02) men to Five (05) years behind bars for stealing 22 Sheep in April 2019. The EC SAPS Police Commissioner Lt Gen - Liziwe Ntshinga (2020) (in Phaliso & Harvey, 2020) states that the sentence would serve as a deterrent to other stock thieves while motivating police to work hard to fight the crime.

Thandisizwe Fikizolo, 31, and Elmond Mshwayi, 33, were each sentenced to 05 years’ imprisonment for Three (03) counts of being in possession of suspected stolen stock. Despite welcoming this sentencing, the EC livestock farmers still believe stock theft in South Africa’s rural villages is a major concern. They have pleaded with the government to redirect resources to stop the theft of stock. Andrew Lifman, whose 40 Sheep were stolen in 2019 and never recovered, said the following in verbatim to vent his frustrations over this crime:

“Stock thieves should ‘rot in jail. People who steal deserve to be in jail for a longer time. The sentence proves we are heading in the right direction. The sentencing of two people is the tip of the iceberg because we know there are many people behind the scenes who were working with the 02. We work hard to provide for our families. Do the thieves know that their actions could result in loss of jobs and people will starve?’ “

Pillay (2022) shares that ‘commercially,’ stock theft directly affects future economic, agricultural activities and threatens the food security of the South African population. Previously, potential stock thieves people might have stolen predominantly for the pot, lately there are groups that have latched onto stock theft as a way of enriching themselves. Negatively, the number of cases not reported to the local SAPSs was increasing at an alarming rate and resulted in a skewed picture of the rate of livestock theft in South Africa. Therefore, it is important the non-reporting of this crime be put into perspective. Economically, stock theft crime affected the business enterprise of every livestock producer, irrespective of whether the producer was a commercial farmer or small-scale farmer, and was the most significant obstacle in sustainable livestock production and food security, the South African lockdown period included.

Furthermore, this crime also place an overwhelming burden on commercial and emerging farmers, which negatively affected the entire agricultural economy. It is regarded as a serious priority crime, and taking proactive stance in curbing its prevalence by regularly engaging with livestock owners (Commercial and emerging) on relevant legislation and preventative measures, as well as with the SAPS, government organisations, and other stakeholders remains of utmost importance (Pillay, 2022).

**Probable stock theft contributory factors during South African lockdown period**

One of the main rationales for stealing livestock, according to Lombard (2020), is the fact that the value of an animal does not diminish because it was stolen. Therefore, the value of a stolen animal is the same as for the animal directly sold by its owner.
Similarly, to the ninth proposition of Edwin Sutherland’s learning theory of differential association theory, which states that even though criminal behaviour is an expression of general needs and values, it cannot be explained by these general needs and values because noncriminal behaviour is an expression of the same needs and values (Sutherland 1998). Thus, the livestock stolen had the same value as the livestock not stolen, unlike a vehicle stolen, which is sold at a lesser price than it would be if its owner sold it.

Lombard (2020) argues that vehicles require strict verification of ownership, which can be done through the National Traffic Information (NaTIS). Livestock does not require any similar verification to the vehicle. Thus, livestock is susceptible to theft and still maintains its value. This requires governments and stock farmers and scientists to find new technological ways to safeguard and keep strong guardianship of livestock. The profiling of livestock thieves needs to be raised among the public since organised crime poses a national security threat that affects all South Africans, ISS (2019). The motives of stock thieves differ; either the theft is due to survival or to sell the stock stolen stock theft due for survival, usually only a few animals that are stolen or slaughtered. Thieves leave with what they can carry and leave behind the carcasses. While criminal syndicates carefully strategise, they usually consist of three to five members. One person looksout the livestock’s movement and informed the gang members that the stolen livestock will be transported in a truck (ISS, 2019). In some cases, farmworkers and farmers conspire with syndicates. Farmworkers would provide detailed information about a fellow farmer to the syndicate if they do not get along and reduce competition. These farmers will help criminals to steal from other farmers (ISS, 2020).

**Restricted patrolling of livestock farms in South Africa**

For remedy, the organised agriculture role-players called for the existing regulations to be revised so that livestock farmers can reinstate rural safety activities such as the patrolling of farming areas. This followed reports of a sharp increase in rural crime in certain regions since the start of the national lockdown to contain the spread of the Covid-19. To indicate the nature and extent of this practice; Tommie Esterhuyse, Chairperson of the Agri SA Centre of Excellence for Rural Safety, (2021) (in Dean, 2020) states that the organisation had noted a definite spike in the number of stock theft cases reported in certain areas since the lockdown started. He said theft of crops from lands had also been rampant. This is what he said in verbatim:

“When we talk about Maize theft, it is massive amounts, entire bakkie-loads being stolen at a time … Agri SA had sent written submissions to both the Department of Co-operative Governance and Traditional Affairs (CoGTA) and the SAPS requesting that rural safety initiatives be reintroduced. We are still waiting for a response to find out if farm patrols, for example, can resume.”

He (Esterhuyse) also hinted that he was hopeful that this would be one of the areas that would receive attention in government’s draft framework for the risk-adjusted strategy of South Africa’s Covid-19 response, currently being circulated for comment. He also shared that the Agri SA and provincial affiliates such as FS Agriculture would also be submitting comments on the framework. To this end, the National SAPS Spokesperson, Brigadier Vishnu Naidoo (2020) (in Dean, 2020), confirms that in line with the lockdown regulations, community policing forum activities and initiatives such as the patrolling of rural roads by farmers had not been permitted. He stated that in any change to these regulations would be announced by the Minister of Police [Cele], or other relevant role players within the justice and security cluster, or via the coronavirus National Command Council (NCC).

The Chairperson of the NSTPF (Clack) [2020] (in Dean, 2020) mentions that an increase in stock theft cases had been reported in the Southern GP and the Northern FS Decreases had, however, been noted in provinces such as the KZN Province. This researcher [Clack, 2020] (in Dean, 2020) believes that the increases that had been observed were being facilitated, in part, by the decline in visible policing due to community policing being restricted, but it was also a symptom of current economic pressures. This is being perpetrated by organised crime syndicates that are finding ways to continue operating despite the lockdown. However, [Clack, 2020] (in Dean, 2020) warns that with consumer purchasing power under tremendous pressure, many people could consider turning to illegal black market channels as a cheaper source of meat. News24 (2020) cited Stevenson (2020), who reveals the following in verbatim concerning patrolling of the local livestock farms:

“However, during the lockdown period, farm watch patrols were not allowed, and this could be one of the significant reasons for the spike of stock theft over this period.”

The Agri EC President Doug Steyn (2020) (in News24, 2020) shares the following expressions in verbatim on this matter:

“He hinted that his organisation was greatly concerned about the “escalating” theft, data showed the theft is more rampant in the eastern part of the province, “especially in areas like Stutterheim, Thomas River, Cathcart, to the east of Komani. My organisation understood that hunger was the underlying factor behind the theft, but farmers’ lives were being destroyed. People are hungry, they need food, but we can’t tolerate being the targets of this onslaught. We are trying to help the people in need by distributing food, but there will come a time where we will say enough is enough, we cannot be deprived of our income-generating capacity and still give food to people.”

Steyn (2020) (in News24, 2020) said that the Agri EC was on a process of arranging a meeting with the SAPS Provincial Police Commissioner, with a view to working together to fight the scourge. This verbatim expression highlight the significance of the envisaged meeting:

“We need to assist the police to apprehend and curb the stock theft. It is impossible for them to do everything alone, without the farmers’ help. We cannot leave it unattended. We will try and collectively work together to resolve it.”
Stevenson (2020) (in News24, 2020) confirms that the party noted that, while other crimes might have declined during the government’s lockdown in response to the Covid-19 pandemic, there has been a massive surge in stock theft across the province. He (Stevenson) describes this as a crippling blow to the already struggling agricultural sector. Furthermore, Tikana-Gxothiwe (2020) (in News24, 2020) highlights that the stolen animals included 4 480 Sheep, 700 Goats, 411 Cattle and 45 Horses. At an average of R2 500 per Sheep, R1 200 per Goat, R12 000 per head of Cattle and R5 000 per Horse, the estimated combined value of stock losses comes in at R17 197 million.

Ignorance, limited livestock branding and tattooing in South Africa: Pre-and-post the lockdown period

Branding is believed to have existed since ancient times as Cattle owners used it to brand their livestock (Rajaram & Shelly 2012). Livestock branding is still prominent in present times and has been adopted by many livestock farmers worldwide. The South African Government Animal Identification Act (No. 6 of 2002) recognised the significance of branding and requires livestock owners to have their animals marked. Branding livestock is one of the methods considered vital in preventing stock theft, and it is believed to serve many purposes (Lombard 2020). The motive for identifying livestock is reported not to have significantly changed over time. The rationale behind livestock identification was and is still to keep track of the animal’s whereabouts and curb stock theft (Maluleke, et al. 2016). The government and farmers need to use branding methods for economic reasons and the value of livestock production. The branding method provides sufficient capable guardianship to the livestock, which would have been a suitable target without the motivated offenders’ branding, which are livestock thieves. Three methods of branding used in South Africa are prioritised as permanent identification markers: hot ironing branding whereby a mark through hot ironing is applied to the owner’s livestock. However, it is not recommended for calves younger than six months. The second method is freezing branding, which is mainly applied similarly to hot ironing branding; however, with the freezing branding, the process requires dry ice and alcohol. The last branding is the Tatoo marks, which requires tattoo tongs and ink to mark the livestock. Moreover, this type of branding can be used even to one week of age calf. However, Lombard (2020) argues that Cattle may be tattooed when they are at the age of one month, and the age of Six (06) months can be branded.

Overall, stock thieves are more likely to steal Cattle that are not branded. The advantage of branding livestock reduces the stealing of livestock significantly. Another advantage of livestock branding is ensuring identification and proof of ownership. Besides, recovered animals from theft can be easily identified to the animal’s correct owner is branded. Therefore, animal branding assists and ensures a sufficient and better recovery rate of the found animal from stock theft thieves. Most importantly, livestock owners are required to apply for the identification mark of their newly purchased livestock within 14 days of a change of ownership/purchasing new livestock.

The inadequate use of technologies to combat stock theft in South Africa: Pre-and-post the lockdown period

Noted financial implications of the livestock tracking systems

This verbatim expression showcased the seriousness of this crime and the emerging losing battle against stock theft in South Africa:

“We, as farmers, felt bad, distressed, and disappointed that government and we are not able to win this battle [against stock theft]. This battle is not only bankrupting farmers but is also a problem for the national economy. I think we [stakeholders] need to come up with another [stock theft control] strategy” (Phillips 2018).

This indications also indicates devastation, and significant financial losses by the local livestock farmers suffer on account of stock theft. The tracking system would result in livestock farmers losing less money to tracking device installation as compared to the loss of livestock through theft.

Willingness and intensity to adopt livestock tracking device

Aggrey Mahanjana - Group Managing Director of the National Emergent Red Meat Producers’ Organisation (2019) (in Phillips, 2018), urges that all stakeholders in South Africa involved in livestock production to urgently convene together to brainstorm effective strategies to address the widespread stock theft. Stevenson (2020) (in News24, 2020) contends that the DA believed the incorporation of new technology, such as drone cameras with infrared and night vision, could also play a significant role in clamping down on stock thieves. He (Stevenson) added the following in verbatim regarding this situation: “Stock theft remains extremely high in the EC. The recently released crime statistics show that, while nationally stock theft has declined by 4.2%, the EC has seen an increase of 1%.” Equally, Tikana-Gxothiwe (2020) (in News24, 2020) mentions that her department had purchased 33 new vehicles, which would be used by the SAPS STUs in the province. This acquisition is welcomed by DA, with Stevenson sharing this verbatim expression in this regard:

“The DA will be monitoring the extent to which these individuals are successfully prosecuted. Our agricultural sector is already under severe pressure from the ongoing drought, with both emerging and commercial farmers taking strain. “We need to stop the haemorrhaging of stock through theft, if we are to save livelihoods and protect the province’s food security.”

While considering the inadequate use of technologies to combat stock theft as well as the willingness and intensity to adopt livestock tracking device in South Africa (Burger, 2012) (in Maluleke, 2017) finds that in dealing with issues of stock theft; the use of technology in combating stock theft in South Africa is gaining momentum daily. This process is guided by the concept described as
“effective stock theft control and monitoring system.” The rationale of this system encompasses the following mechanisms to monitor and prevent stock theft in a given location, as guided by the Agri-Alert system, among others, as well as enhance productivity for the livestock farmers: Activity alarm - Global Positioning System (GPS) alarm - Water-level monitoring - Panic alarm; and Temperature alarm. The available systems provides for livestock farmers to monitor their animals’ movements and any disturbances, using their cell phones. Accordingly, the GPS coordinates are also available everywhere, for the farmers in question to receive Short Message Service (SMS) in this regard. This system makes use of sensors fixed around an animal’s neck, and sends signals to the base station as soon as abnormal or unexpected behaviour occurs (Agri-alart, 2013). Simultaneously, the base tower then sends an SMS message to the cell phone of the farmer, informing him of this behaviour. Furthermore, the Electronic Identification (EID) is another system, which is nothing more than a data capture system, livestock producers can decide how to effectively integrate it into their programs. For basic compliance; the simplest option might be to purchase the uniquely numbered Radio Frequency Identification (RFID) ear-tags and maintain simple records for animals by means of the ear-tags, Maluleke (2017). Moreover, the primary findings of a study conducted by Maluleke (2018) indicates that the value of using the available methods (Conventional and technological) in combating stock theft by selected stakeholders is not clear to most participants. This article suggests that an integration of conventional methods and various technologies in combating this scourge will provide a significant contribution to ensuring the safety and protection of livestock in South African communities, KZN included.

In terms of aligning with technological advances and improvements to prevent stock theft in the Giyani Policing Area (GPA), Maluleke (2014) recommends that the Giyani SAPS STU should introduce the use of technological advances made, as an essential means to detect stock theft, for example; the usage of computers; staging of database system; proper facilitation of crime trends; and, surveillance, to eradicate increasing stock theft crimes in the GPA. It is advisable to have access to, and share, information, irrespective of physical locations. Policing stock theft in Giyani should be modernised in our post-modern society, to keep up with current trends; this will enhance the daily operations of the Giyani SAPS STUs. It is suggested by this researcher that a computerised tracking livestock identification system, to control and monitor stock theft movements, should be introduced to add to the simultaneous operations of the Giyani SAPS STU, livestock farmers, and the community members. It is suggested that the Giyani police station Commander and the Giyani SAPS STU Commander, through the use of technology, could begin to work closely together, and support each other fully, given the vastness of the areas served by the Giyani SAPS STUs. These stakeholders need to fully appreciate, and understand, the power of technology in policing stock theft, while using it in the best interests of the operations of the SAPS. This would contribute to addressing the stock theft problem successfully in the GPA.

Mainly, Maluleke (2016) also establishes that it is clear that knowledge of the application of Deoxribonucleic Acid (DNA) technology in combating stock theft was limited from the participants’ perspectives. The researcher recommends that more SAPS STU members be trained specifically in the use DNA of technology. It would be best if each SAPS STU in South Africa should have designated DNA technology experts working along with the respective forensic laboratories across the country. This will assist the SAPS STUs tremendously with their investigation of stock theft, for example in instances when livestock is stolen, illegally relocated or even slaughtered, by being able to use biological samples to link a potential suspect to the crime in question, or to exonerate an innocent person.

Correspondingly, it is common knowledge that DNA technology has proved to be a solution to the stock theft epidemic by providing rapid means of identification, therefore DNA technology may as well be used as a confirmatory forensic tool in animal identification. The value of this application is gaining momentum daily as an effective tool to be used in most forms of combating, investigations and prevention, irrespective of either criminal or civil nature. This article presents selected findings from studies and publications on policing of stocktheft. Likewise, the findings of a study conducted by Manganyi, Maluleke and Shandu (2018) recommend that effective collaboration structures between all relevant stakeholders in the policing of stock theft in KZN should be incorporated into anti-stocktheft operations by means of the development of a set of good practices guidelines – all to assist in solving the problems relating to this form of rural crime. Reference in the article is also made to the use of DNA technology as an aid to traditional methods of combating the direct impact of stock theft on livestock farmers in the formal and informal rural economies. The utilising of DNA technology assists Anti-stock theft efforts by providing considerable evidence resulting from physical matching, soil analyses and manure samples. The DNA technology, therefore, enables commercial and emerging subsistence livestock farmers, as well as other interested stakeholders, to more effectively combat this crime by obtaining successful prosecutions in court.

Notable economical value and costs of livestock in South African contexts: Pre-and-post the lockdown period

Stock theft for farmers in South Africa has been a problem; the increasing number of stock theft reported yearly proves this challenge. In South Africa, stock theft has been reported to have increased by 2.9% from 2018 (Govender, 2019). Accordingly, about 29 672 stocks were stolen from April 2018 to March 2019 (ISS, 2019). In the past decade, about 64,000 cases of stock theft in the EC Province were reported. For the financial year of 2019/20, about 6,800 stock theft was reported in the Eastern Province. This high number of stock theft in the EC Province resulted in the province being regarded as the capital of stock theft in South Africa (Nini, 2020). Stock theft in the rural community is escalating; farmers in rural society are mostly affected by this epidemic (Maluleke, Mokwena & Motsepa, 2016). In the EC, together with other provinces of South Africa, such as FS, KZN, and LIM that is located in the border to other countries, stealing of animals is said to be more common and severe than other types of crime (Maluleke,
Mokwena, & Motsepa, 2016). The latter authors further state that stock theft is not a new phenomenon in South African society, adding that some people rhetorical consider it an old criminal activity ‘as farming itself’ (Maluleke, et al. 2016:257). According to Govender (2019), Cattle record the highest number of stock theft as they are the most targeted. Statistics presented to parliament show that 13,948 Cattle were stolen between the 1st of April 2018 and 31st of March 2019 compared to 9000 Sheep, 5,567 Goats, and 1,518 Horses (Govender 2019). Equally, the high number of stock theft is becoming a massive concern in South Africa. The effectiveness of policing and guarding against stock theft in rural areas such as the EC Province seems to be negligible. Thus, Maluleke, et al. (2016) assert that people may conclude that the police approach in dealing with stock theft is insufficient. They are adding that the preventative measures employed by the SAPS STUs across the country do not give confidence because of the constant increase of stock theft in rural areas.

As aforementioned, stock theft is not a new problem in South Africa; the difference is that it has transformed, and organised syndicates now commit it; it is no longer petty thieves. The NSTPF Chairperson [Clack] (2019) (ISS, 2019:2) provides that stock theft is an organised crime., about 87% of stock theft involves some form of organised crime, while 13% is for survival. The increase in stock theft poses a threat to the livelihoods of livestock farmers and poses a severe risk to the economy (Maluleke, et al. 2016). According to research released by Unisa, stock theft has a significant financial impact; more than 29,000 incidents of stock theft were reported during the 2018/19 financial year. A massive number of stock theft is costing the South African agriculture sector more than R1 billion (Booyzen, 2019). The ISS (2019) concurs that the persisting theft of livestock since 2016/2017 has cost the country billions of Rands every year, damaging the local agriculture economy and negatively affecting food security. Marius van de Merwe - Director of the Alphawave Group and Product Manager of Farm Ranger (2001) (in Booyzen, 2001) asserts that “the financial impact of rising stock theft in South Africa has made it essential for farmers to use technology to stay a step ahead by keeping their herds in check.” The reported stolen livestock are costing farmers hundreds of millions. The Independent Online News [IOL] (2007) shares that stock theft in South Africa cost farmers about R327.6-million in 2006. While during 2009, farmers lost millions of Rands due to theft (Maluleke, et al. 2016). The newspaper adds that stock theft is hampering farmers’ profit and interfering with the government’s land reform process and the empowerment of emerging farmers. Specifically, the emerging livestock farmers picket outside the Tsolo magistrate court on 14 July 2020, demanding the denial of bail for Nandokazi Xoliwa Mboombo, who appeared in the magistrate court in connection with the theft of 46 Cattle worth R644,000. Mbombo is alleged to be the mastermind of a suspected existing stock theft syndicate operating in the EC and KZN Provinces (Daily Dispatch 2020). Mbombo is yet waiting to appear in another case of stock theft in Qumbu magistrate court, a neighbouring town, for a bail hearing. She was released in 2016 by Kokstad regional court, where she was also charged with stock theft. The IOL (2007) also shares that an existing syndicate operating in stock theft was suspected, reporting that emerging farmers are severely affected, with kraal emptied. The accusations levelled against Mbombo to be the mastermind of stock theft syndicate in the EC and KZN Provinces involves stock theft where 411 Cattle with an estimated value of R6.2 million were stolen (Feni 2020a). Particularly IOL (2007) indicates figures prove that stock theft's criminal syndicate is operating on a large scale. Tsolo resident proclaimed that: “So many Cattle have been stolen. We have counted more than 100 Cattle and close to 1,000 Sheep stolen last year June. Livestock is crucial to any African Man and his homestead”. The resident added that many Cattle had been stolen, leaving him with 31 Cattle and 394 Sheep left. An 81-year-old Mr Khuluphele Rabulana of Elujweceni said that Eight (08) of his Cattle were stolen in May 2019. Adding that, “I think my livestock has been stolen 12 times since 2018, and I have lost 20 Cattle. Now I only have 13 Cattle and 114 Sheep” (Feni, 2020b).

Notably, Feni (2020a) further reports that EC Gospel artist Mr Butho Vuthela of Ngxaxha village in Mount Fletcher was the latest stock theft victim; his family lost 74 Cattle worth about 900,000. They were stolen from his family kraal on 8 May 2020. Similarly, the gospel singer was reported saying the following in verbinit: “We only recovered 18 Cattle; 56 others are still missing, and there is little hope of finding them. This is very saddening, especially to my elderly father, my uncle, and my frail aunt.” The high number of reported stock theft forced farmers to look at different means to mitigate this phenomenon. The branding of livestock for identification is reported to have been practised for a very long time. Maluleke, et al. (2016) cite that branding has a biblical background from the heardsman Jacob, proclaimed by the Bible to have branded his stock. In our modern society, the increase of livestock requires a new model, such as the use of technology. However, even though these trends have been increasing, the new technologies that have been developed are not yet tested to prove their impact in reducing stock theft and how that could lessen stock theft. Notwithstanding the importance of the developed devices, farmers, particularly rural farmers who are mostly with open kraals and are most likely affected by the stock theft, are very minimal. As depicted in table 5-6, the economic impacts of stock theft in South Africa are huge and the estimated value of livestock stolen and recovered remains unstable.

**Conclusion**

It is concluded that the agriculture sector remains essential in South Africa, even though it has little contribution to the GDP. The agriculture sector, particularly livestock, was left vulnerable during the hard lockdown period in South Africa. The impunity for the Neighbourhood Watch groups to provide security and patrolling services to the livestock is required. The arrest of many people for stock theft in the South Africa during the lockdown period proved that the livestock was exposed to opportunistic stock thieves, who disregarded the rule of Law, leading to this trend to escalate exponentially, restoration of the local SAPS STUs confidence and trust is highly sought, with command and control of relevant Anti-stock theft stakeholders manged properly.

473
For recommendations, post analysing the identified thematic contributory factors to stock theft during South African lockdown period; it is forwarded that livestock does not require any sophisticated verification to maintain its value as opposed to vehicles. The increasing prevalence of livestock require government, scientist and livestock farmers to collaborate to establish modern technological methods that can be used to prevent stock theft. There have been methods that are used to prevent stock theft. However, this has not stopped or decreased stock theft in the past years. Nevertheless, branding, to some extent, does provide sufficient protection of livestock. Thus, it is encouraged livestock farmers to use branding. The study also recommends that much-needed support should be directed at the livestock farmers by the government, SAPS management and other relevant stakeholders. Stock thefts have the potential to cause serious negative impacts, and there are indications of the crime diversifying and extending into new realms. This crime is not only affecting rural emerging livestock farmers, but the established individuals in the commercial farming sector as well. It is a fact that if it is not successfully controlled, it will not only threaten the sustainability of the South African livestock sector but also the competitiveness of the sector to a high degree. An urgent need for the development of stock theft prevention strategies for the South African livestock farmers is highly sought to serve as an empowerment model for effectively addressing this crime. The livestock farmers, together with the ‘Anti-stock theft structures,’ including the community should form a working relationship against this scourge, this should be guided by a comprehensive, preventative measures rooted in local rural communities across South Africa for efficient protection of livestock. While livestock farming has always been a critical contributor to the South African economy, the potential for prevention of stock theft prevalence should not be neglected. The currently preventative measures are inadequate to curb this crime. Thus, extensive research should be conducted to empower South Africans, local SAPS STUs officers, prominent livestock farmers, community members, and other interested relevant stakeholders, to establish positive ways of combating this increasing crime. Finally, the enforcement of the available Acts should be highly considered and the implementations of ‘Anti-Stock theft strategies should be strongly advised for the enhancement of failing co-operations between relevant stakeholders in this study area.

The willingness and intensification of adopting of methodologies to clarifyly understand the nature of stock theft during the lockdown period in South Africa, as well as the probable stock theft contributory factors, restricted patrolling of livestock farms, ignorance, limited livestock branding and tattooing in South Africa: Pre-and-post the lockdown period, inadequate use of technologies to combat stock theft in South Africa: Pre-and-post the lockdown period (Noted financial implications of the livestock tracking systems and willingness and intensity to adopt livestock tracking device) and notable economical value and costs of livestock in South African contexts: Pre-and-post the lockdown period, should be implemented urgently. Moreover, efficient plans to curb existing motives and/or the nature and extent of this stock theft during the lockdown period in South Africa were unfounded. as well as placing more attention and resources on this crime to avoid this catastrophic trend through the application of efficient and competent policing of this crime, as well as the justice system that is overwhelmed or over-stretched and under-capacitated.

Acknowledgement
All authors have read and agreed to the published version of the manuscript.

Author Contributions: Conceptualisation, W., M.R., and S.L; methodology, W; validation, W; formal analysis, W., M.R., and S.L and W; investigation, W., M.R., and S.L resources, W., M.R., and S.L; writing original draft preparation, M.R., and S.L; writing review and editing, W; supervision, W., project administration, W., and M.R.

Informed Consent Statement: The researchers took the following into account to ensure ethicality: The University of Limpopo and University of KwaZulu-Natal research ethics policies and exercising honesty in terms of acknowledging ‘all’ sources used in this study, aided by the list of references and avoiding of plagiarism.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

References
Maluleke et al., International Journal of Research in Business & Social Science 11(2) (2022), 462-476


Publisher’s Note: SSBFNET stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

© 2022 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).