S. Afr. J. Agric. Ext. Zantsi & Nengovhela
Vol. 52 No. 1, 2024: 116-138
10.17159/2413-3221/2024/v52n1a14409 (License: CC BY 4.0)

The Potential Social Impact of COVID-19 Lockdowns on Agricultural Households in South Africa: An Integrative Review

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ABSTRACT

This article attempts to establish a synergy between two strands of literature. On the one hand, the findings focused on the elderly, who had already been suffering from mild illnesses and comorbidities, and the poor and rural dwellers, who then represented the population groups most likely to be killed by the virus, as the population groups most affected by the COVID-19 pandemic. On the other hand, the findings on smallholder farming households, as a population group, share the same attributes as the elderly group. The research data was gathered through an integrative literature review using secondary sources from Statistics South Africa and the Department of Health. Our findings suggest that the smallholder farmers who are elderly with a greater reliance on agriculture and the wage labourers were most vulnerable to the impact of COVID-19. Although our findings suggest a likely impact on all the pentagon capitals of smallholders identified through the SLF lens, the odds are higher in the social, human, and financial capitals. Therefore, in future outbreaks, the available support should prioritise the smallholder farmers largely defined by these capitals.

Keywords: COVID-19, South Africa, Smallholder Agriculture, Sustainable Livelihood Framework

1. INTRODUCTION

Globally, most people with low incomes reside in rural areas. Castaneda et al. (2018) estimate that the percentage of the poor in rural areas is approximately 80%. For this reason, it has since been deemed effective to use smallholder farming to fight rural poverty (De La O Campos et al., 2018), as was the case in the Asian Green Revolution (Hazell, 2009). Cousins and

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Chikazunga (2013) define smallholder farmers as individuals whose production is intended for home consumption and whose surpluses generate varying amounts of cash income. They further state that smallholder farmers rely mostly on family labour and differing levels of mechanisation, capital intensity, and credit.

In South Africa, the National Development Plan prioritises smallholder farming for rural economic growth, employment creation, poverty alleviation and household food security (NPC, 2011). Smallholder farming, which involves more than two million households across the country, mainly in former homelands (StatsSA, 2016), plays a crucial role in South Africa. Most of these households consist of the elderly, who depend on multiple sources of income, for example, social grants, remittances, and wages (StatsSA, 2016; Yobe et al., 2019). This type of dependency constitutes a chief characteristic of the demographic profile of South African rural areas, which consists of the elderly and children due to the migration of the youth to urban areas in search of employment (Makiwane et al., 2017). Hence, remittances, one of the main income sources, play a critical role in household income. However, the COVID-19 lockdowns and the resulting loss of employment by many will indirectly impact smallholder farming. Smallholder farming is centred on a household. McAllister (2001) argues that smallholder farming is intrinsic to building a homestead, an important aspect of rural sociology.

It has been established that the elderly with preexisting comorbidities such as diabetes mellitus and hypertension were most likely to be killed by the COVID-19 pandemic (Nwosu & Oyenubi, 2020). However, not much is known about the impact of the COVID-19 pandemic on smallholder farming, as existing studies only focus on productivity and food security (Nkamleu, 2020; Setumo, 2020), ignoring the impact on social demographics and disruption of knowledge systems and human capital at a continental level (Ozili, 2020). A few studies have been limited to the vulnerability of different social groups and their precarious livelihoods caused by the pandemic (Carlitz & Makhura, 2020; Pillay & Barnes, 2020). Others, such as Wegerif (2022), studied the economic impact of COVID-19 on commercial-oriented small and medium farmers. Fischer et al. (2023) found that the COVID-19 pandemic did not impact smallholder agriculture in one Eastern Cape village. Therefore, this study attempts to extend the scope of knowledge by bridging this gap. Secondary datasets, namely, Statistics South Africa's General Household Survey and the data from the Department of Health, together with other relevant literature, will be used to explore the social impact of the COVID-19 pandemic on these communities.

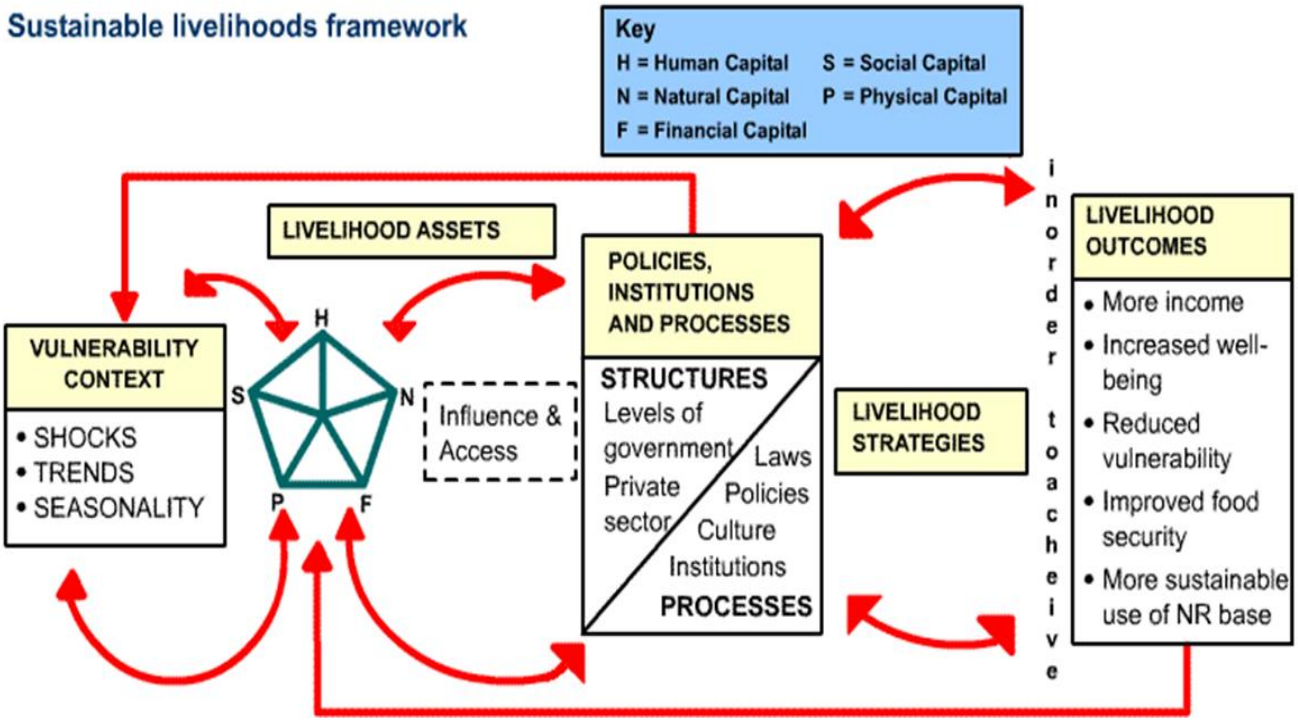
This study aims to determine the potential social impact of the COVID-19 pandemic on smallholder farming communities. As defined by the Centre for Social Impact, social impact pertains to the net effect of an activity on a community and the well-being of individuals and families. A farming system refers to a population of individual farm systems with broadly similar resource bases, enterprise patterns, household livelihoods and constraints (Dixon et al., 2001). Therefore, this study uses the Sustainable Livelihood Framework (SLF) as a lens to view the potential impact of the pandemic on smallholder livelihoods. The SLF offers a multi-dimensional approach, which may allow the researcher to focus the study on the production, disruption, and loss of human capital, loss of indigenous knowledge, and exacerbated changes in family structures in rural households. These issues, which are important aspects of rural sociology, can also aid in planning support systems during and after the COVID-19 pandemic (Popoola & Yusuf, 2021). The Department of Agriculture, Rural Development and Land Reform has issued a stimulus package of ZAR 1.2 billion for smallholder farmers (South African Government, 2020). The British solidarity fund has also donated ZAR 50 million to support smallholder farming households.

The next section articulates the methodology used in the study. It is followed by synthesising the relevant literature and presenting the data that led to the findings. After discussing these findings, concluding remarks will be made in the last section.

2. METHODOLOGY

This study is largely based on two secondary sources: the 2016 Statistics South Africa's General Household Survey (GHS) and the COVID-19 data from the Department of Health. According to Stats SA (2018), GHS is an annual household survey conducted regularly by Stats SA since 2002. The GHS survey is a household-based instrument aimed at determining the country's progress in development. The GHS survey collects data on education, health and social development, housing, household access to services and facilities, food security and agriculture. Additionally, data were collected through a well-structured household questionnaire with units of analysis set at the individual and household levels. Data regarding COVID-19 (the number of tests, cases of COVID-19 and deaths) were retrieved from the Department of Health's website. Both data sets included all nine provinces in South Africa (Eastern Cape, Limpopo, Free State, Gauteng, Northwest, Mpumalanga, Northern Cape, Western Cape, and KwaZulu-Natal). These data sets were contrasted and linked to what is already known about the South African smallholder farming systems. This process involved an analysis of the literature

searched through Science Direct, Scopus, Sabinet, and Google Scholar. The Sustainable Livelihood Framework (SLF) was then used to explain the salient features of smallholder farming within the five livelihood capitals farmers use to build livelihood strategies. This process allowed the researcher to identify the pandemic's possible impacts on smallholder farmers' livelihoods.



Source: DFID, 1999

The sustainable livelihood approach "is a way of thinking about the objectives, scopes and priorities for development activities, which is based on evolving thinking about the way the poor and vulnerable live their lives and the importance of policies and institutions" (Serrat, 2017:21). While it is critiqued for its inflexibility and its ignorance of the prevailing power relations (McLean, 2015), the SLF can assist greatly in organising the factors that constrain or improve livelihood opportunities, and in foregrounding their interconnectedness (DFID, 1999). This approach suits the study due to the latter's thrust to understand the various dimensions of smallholder livelihoods, strategies, and objectives pursued, as well as associated opportunities and constraints about its uses in other similar studies (Li et al., 2020; Sharaunga & Mudhara, 2021).

The study used the integrative review approach to integrate the secondary data and statistics with the literature (Snyder, 2019). Integrative literature reviews address mature, new, or

emerging topics through a combination of approaches, such as combining traditional reviews and snowball reviews (Snyder, 2019). As for newly emerging topics, the purpose is to note and create initial or preliminary conceptualisations and theoretical models concurrent with the objective of the present study. Hence, it was deemed appropriate to adopt this approach.

3. SYNTHESIS OF LITERATURE AND FINDINGS

This section presents the findings and synthesis of literature on the relationship between the outbreak of the COVID-19 pandemic and its possible impacts on smallholder farming. The section starts by unpacking the impact of the pandemic on the country's general population based on race, social class, and geographical location. Later, the pandemic's possible links and potential impact are analysed through the five livelihood assets of the SLF.

3.1. Impact of COVID-19 on the South African Population

Broadbent et al. (2020) provide a brief and important overview of the South African population, which is a prerequisite to understanding the impact of the pandemic on the country's population. According to these authors, in 2020, South Africa had about 59.62 million people (51.1% female), of whom 5.4 million (9.1%) were older than 60 years and 17.1 million (28.6%) were younger than 15 years. Sixty-seven percent (39.6 million) of the population was urban. Almost one in seven household heads (in urban areas, one in five) live in an informal settlement, where overcrowding is common. Nearly a third of South African households lack access to a reliable water supply, and 14.1 million lack access to safe water. This picture provides a starting point for understanding the impact of the pandemic on the country.

South Africa recorded its first case of COVID-19 on 29 February 2020. The virus then spread, making the country the epicentre of the pandemic in Africa and the Southern African Development Community region. South Africa leads not only in the number of confirmed infections but also in the number of recorded deaths. The distribution of infections by province over the subsequent months is presented in Table 1.

TABLE 1: Infection Rate of COVID-19 by Province, Date and Month in 2020.

Province	March 31st	April 30th	May 31st	June 30th	July 31st	August 31st	September 24th
Gauteng	633	1446	4003	42881	175272	210169	218420

Western cape	325	23	21382	62481	95223	106021	110080
KwaZulu-Natal	179	980	2545	9674	76706	113006	118350
Free state	74	116	278	1514	21262	37888	45353
Northwest	8	31	175	4187	19325	25348	28688
Mpumalanga	12	36	121	1190	14101	24405	26842
Limpopo	14	32	177	1131	8565	13265	15003
Eastern cape	12	647	3927	27686	77938	86163	88568
Northern cape	6	17	69	465	4741	10726	15745
Unallocated	90	0	6	0	50	50	0
Total	**1353**	**5647**	**32683**	**151209**	**493183**	**627041**	**667049**

Source: Department of Health (2020)

The data presented in Table 1 shows that the highest number of cases or infections of COVID-19 are in three provinces (Gauteng, Western Cape, and KwaZulu-Natal). Table 1 further shows that the coronavirus infection rate increased rapidly from the 31st of March to the 24th of September 2023. The growth in the number of cases slowly transitioned to lower socio-economic groups because of challenges related to self-isolation and social distancing in overcrowded settings, the lack of affordability of hygiene products, the lack of access to potable water and proper sanitation, and food insecurity (Mafuya *et al*., 2020). The COVID-19 pandemic caused tremendous damage to human lives and the South African economy. All non-essential activities were shut down, and borders were closed, businesses lost income and exchange rates plummeted. This havoc increased food prices and living costs, particularly impacting the poor (Mbunge, 2020; StatsSA, 2022). It is said that these extreme socio-economic disparities threaten the survival of vulnerable communities and have serious implications for estimating the potential impact of COVID-19.

Thus, this pandemic has exacerbated the country's economy's income inequalities (Carlitz & Makhura, 2020; Pillay & Barnes, 2020). While it can be said that everyone in the country is affected by the pandemic, vulnerable population groups, including low-income earners in the informal employment sector, were most affected, particularly in terms of job losses and income loss during this pandemic (Bassier, 2021; Nwosu & Oyenubi, 2020; Wegerif, 2022). Additionally, with COVID-19 affecting every aspect of people's lives, focusing on health and

social and economic problems (Mbunge, 2020; Ozili, 2020; Nkamleu, 2020). The loss of jobs and income will likely result in a reduced ability to access healthcare and a nutritious diet, negatively affecting people's health, especially those with comorbidities, such as the elderly (Nwosu & Oyenubi, 2020). Arguments and discussions about the impact of the COVID-19 pandemic all acknowledge that vulnerable people are feeling and will continue to feel more of the catastrophic effects of the pandemic. This vulnerability is shaped by socio-economic factors, such as class, race, gender, age, and geographical location (Carlitz & Makhura, 2020; Pillay & Barnes, 2020; Turok & Visagie, 2020; Wegerif, 2022).

TABLE 2: COVID-19 Deaths in South Africa by Age in June 2020

Age (years)	Number of deaths
0–9	3
10–19	5
20–29	26
30–39	116
40–49	244
50–59	471
60–69	506
70–79	342
80–89	161
90–99	45
Unknown	11

Source: Statista (2020)

Table 2 shows the coronavirus (COVID-19) death numbers in South Africa by age, ranging from 0 to 99 years. Kamer (2020) noted that from 22 June 2020, a total of 1,930 COVID-19-reported causalities were registered in South Africa, and most deaths fell within the age group of 60–69 years, whereas 471 people aged 50 to 59 passed away due to the coronavirus.

3.2. Structure and Constituents of Smallholder Farming Systems in South Africa

At the surface level, race, geographical location, and social class define South African smallholder farmers (Zantsi et al., 2019). Most of the 2.3 million smallholder farm households in South Africa are located in the Eastern Cape (27.9%), followed by Limpopo (24.1%) and

KwaZulu-Natal (18.6%). Mpumalanga, Free State, and Northern Cape follow with 18.2%, 16.6% and 13.8%, respectively (StatsSA, 2016). The Western Cape and Gauteng recorded the lowest participation rates, 3.6% and 4.9%. As can be observed from the quoted statistics, most fatalities occur in rural provinces. Deeper analyses have tracked these households in homeland regions, now former homelands (Pienaar & Von Vintel, 2014; Aliber & Mdoda, 2015). Thus, this structure is largely influenced by discriminative policies that are premised on a nation divided across racial lines. Unsurprisingly, most smallholders are black and poor households (StatsSA, 2016). The geographical location of smallholders implies that they are likely to be hit harder by the COVID-19 pandemic than their urban counterparts (Turok & Visagie, 2020).

However, not all farmers engage in farming for the same reasons, scale and intensity. As such, there have been repeated calls to discontinue the blanket approach to dealing with these smallholder farming households because of these misinformed policies (Olofsson, 2020). More broadly, a distinction has been made between subsistence-semi-subsistence- and commercially oriented smallholder households (Vink & Van Rooyen, 2009). Subsistence farmers are defined as smallholder households that engage in farming merely as an additional food source and rely on family labour with few inputs. Although their farming remains an extra food source, mainly relying on family labour and little inputs, semi-subsistence farmers also have a portion of the output sold. The commercially oriented type of smallholder households engage in farming for the attainment of income; they consume a small share in their own households and employ some additional labour because their scale of production is slightly larger or farm intensively by applying additional inputs and using irrigation (Zantsi et al., 2021). The number of smallholder farm households declines as one moves from subsistence to commercial orientation (Aliber & Mdoda, 2015).

Within these categories, the output and contribution of food and income to the household differ. Further, smallholder farming is not practised in isolation; it is only one form of food or income contribution to the household (Hajdu et al., 2020; Zamchiya, 2019). For example, it is combined with wage employment, social grants, and other sources, such as wild plant collection or marine products for those close to the coast. Given the above differentiations, some studies have further disaggregated smallholders using various methods, such as the class-analytic perspective and multivariate statistics within some sub-groups. For example, Olofsson (2020) disaggregated commercially oriented orchard-farming smallholders in Limpopo and found five sub-groups. The cluster groups consisted of welfare-dependent petty commodity smallholder households

characterised by farmers, agricultural petty commodity producing smallholder households characterised by diversification within agriculture, paid small-scale capitalists venturing into agriculture via paid work, and agricultural small-scale capitalists advancing within agriculture.

Zantsi et al. (2021) used multivariate statistics to disaggregate commercially oriented smallholders in three provinces and found five distinct cluster groups. Cluster 1 consisted of male, educated, and part-time livestock farmers. Cluster 2 comprised intensive crop producers with a relatively high-risk preference who used hired labour. Cluster 3 comprised female, risk-averse, small ruminant-based production systems with relatively higher land demand. Cluster 4 comprises young, full-time, and predominantly crop farmers willing to take risks. Lastly, Cluster 5 consisted of resource-poor, retired and female farmers with low education who were mostly unwilling to relocate to commercial farms if chosen as land reform beneficiaries.

There are other examples of the disaggregation of smallholder farmers, as stipulated by Pienaar and Traub (2015) and Shackleton and Hebinck (2018). However, in all these studies, smallholder agricultural households were treated with the household as the unit of analysis rather than the individual, as discussed in McAllister's (2001) building homestead view of smallholder farming. Further, smallholder-farming households were grouped based on the household characteristics and the head's demographics. For example, features such as household size, gender, and age of household head. Other features used were socio-demographics, asset accumulation and how investment in agriculture was linked to farming scale and intensity; for example, income sources, household assets such as vehicles and machinery(Olofsson, 2020; Shackleton & Hebinck, 2018; Zantsi et al., 2021).

3.3. Impact of COVID-19 on Smallholder Farmers' Human Capital (Indigenous Knowledge, IK)

Regarding the SLF, human capital encompasses abilities, experience, work skills and good health, which, when combined, allow populations to engage with different livelihood strategies and reach their own objectives (UNDP 2017). As seen from the reviewed demographic literature and statistics on smallholder farm households, it is practised by elderly household heads. Thus, this tacit and indigenous knowledge and experience are invested in the older generation (Garutsa & Nekhwevha, 2016; van Niekerk et al., 2015; Obi & Ayodeji, 2020). The importance of tacit knowledge, stressed by van Niekerk et al. (2015), is considered a major challenge even among land reform beneficiaries (Schirmer, 2015). Tacit knowledge is

knowledge that is not known immediately but gained through learning by doing and experiencing (Nonaka & Takeuchi, 1995). Socialisation was among the four proposed knowledge transfer channels proposed by Nonaka and Takeuchi (1995). This process involves transferring tacit knowledge through sharing experiences, observation, imitation and trial and error (van Niekerk et al., 2015). Thus, human capital plays a crucial role in agricultural production and managing factors of production (Vink, 1993). Studies that have estimated smallholder farmers' technical efficiency and productivity have found that farmers who belong to a farmer organisation are more efficient than those who do not (Bese et al., 2020; Obi & Ayodeji, 2020). Garutsa and Nekhwevha (2016) have found that elders are the custodians of the indigenous knowledge of smallholder household heads regarding food production, processing and storage.

While there is evidence of the youth's reluctance to participate in smallholder agriculture (Hull, 2014), there is also evidence of an attempt by parents to transfer their farming knowledge to their children. For example, Van Averbeke and Khosa (2011) reported that occasionally, smallholder irrigating farmers take their children to the fields to transfer farming skills. Therefore, the loss of the older generation may be expected to widen the gap between indigenous and tacit knowledge of farming. Further, smallholder farming households are also engaged in food security projects, one avenue of information sharing and attaining food security (Hart, 2011). Some of these information-sharing platforms include farmer field schools. One case study in Alice has shown such platforms' success in improving smallholders' productivity and human capital. Still, most of these farmers range from middle-aged to pensioners (Apleni et al., 2019). However, during the lockdowns, this interaction was minimal, although agriculture was regarded as an essential service (Government of South Africa, 2020) because older people, such as smallholder farmers, were deemed at high risk and had restricted mobility.

3.4. Impact of COVID-19 on Smallholder Farmers' Productivity (Natural Capital)

According to the SLF, natural capital is the term used to describe the stocks of natural resources from which further resources and services can be developed to improve livelihoods (UNDP, 2017). Natural capital includes land, food production (including marine and wild fruit gathering), and water among others (Hajdu et al., 2020). Starting with food production, smallholder farming is relatively well known for poor productivity compared to its commercial farming counterparts (Liebenberg, 2013; Greyling, 2019). However, production and productivity vary according to the typology of smallholders, as outlined in the preceding

section. An edited volume of case studies of different categories of smallholder farmers by Aliber (2011) provides detailed information on varying smallholder production and yields. There are numerous issues related to low production and productivity. These include the low input use of items such as fertiliser and high-yielding seed and animal breeds. Low technology adoption is another issue (Aliber & Mdoda, 2015; Liebenberg, 2013). De la Hey and Beinart (2016) and Hull (2014) reported that a lack of labour is a self-reported problem that causes poor productivity in smallholder farming systems. Suppose adults are working in smallholder agricultural production who are likely to catch the virus, for example, as reported by Wegerif in 2022. In that case, the likelihood of a drop in productivity may be high. However, the researcher acknowledges that some of these factors (e.g. low adoption of technology and low input use) occur because of coping mechanisms and risk minimisation; as such, smallholders are rational in their behaviour (Aliber & Hart, 2009).

Despite the relatively low production level of smallholder agriculture, the latter still makes a valuable contribution to household food security, income, employment, and sociocultural living at low levels of cost and risk (Aliber & Mdoda, 2015; Cousins et al., 2018; Hajdu et al., 2020; Mbengwa et al., 2015). Further, smallholder agriculture has made a modest contribution to the South African economy. Aliber and Mdoda (2015) estimated the value of smallholder agriculture to be 13 billion rands compared to the 49-billion-rand value of commercial agriculture. On a one-hectare basis, the value of smallholder agriculture in the former homelands was estimated at 658 rands (Aliber & Mdoda, 2015). Water is an essential input in smallholder agricultural production, but it is very scarce, and its use is complex (van der Horst & Hebinck, 2017). In recent years, challenges such as climate change have been projected to result in frequent droughts, increased temperatures, and erratic rainfall (Gbetibouo & Ringler, 2009). The pandemic has added more stress to this scarce resource since households had to use more water to frequently wash hands to mitigate the spread of the COVID-19 virus. This implies that some water previously used for agriculture may have been diverted to health with limited potential for re-use.

3.5. Impact of COVID-19 on Smallholder Farmers' Financial Capital

According to the UNDP's (2017) interpretation of the SLF, financial capital refers to the financial resources that people use to achieve their livelihood objectives. UNDP (2017) further suggests that the definition here includes flows and stocks of consumption and production.

Moreover, this definition has been adopted to capture a vital livelihood building block, namely the availability of cash or equivalent that enables people to adopt different livelihood strategies.

Smallholder financial capital may include savings, credit access remittances, and pensions, which they can use to support their farm activities (Mhlanga & Ndhlovu, 2020; UNDP, 2017). Smallholder farm households rely on multiple income sources for their livelihoods, including remittances, social grants, wage income and farming income (Hajdu et al., 2020; Yobe et al., 2019; Zantsi & Bester, 2019). While access to credit and savings is lacking for South African smallholders, using other income sources, such as wage income and social grants, remains important for supporting smallholder production.

A study by Sinyolo et al. (2017) suggests that increasing income from social grants motivates households to participate more in farming at the lower and higher levels of social grant dependency and is used, for example, to purchase inputs and pay labour. While social grants are less affected in the pandemic because they are not cut off, other income sources, such as wage labour and remittances, are at risk because of the lockdowns and the resulting closing or scaling down of several companies (Arndt et al., 2020). In this regard, between February and April 2020, it is estimated that three million people lost their employment status. Of these people, female manual workers accounted for the majority (StatsSA, 2022). Further, 30% of these households reported no household grant protection (Mabuza, 2020).

3.6. Impact of COVID-19 on Smallholder Farmers' Physical Capital

Through the lens of the SLF, physical capital encompasses tangible assets, which in the case of smallholders may include assets such as farm equipment and livestock (Baiyegunhi, 2014; Mhlanga & Ndhlovu, 2020). Physical assets significantly and positively impact whether smallholder farmers can achieve their production goals, including expanding the area under production (Chipfupa & Wale, 2018). Smallholders are generally perceived as resource-poor. For example, smallholders have poor infrastructure, machinery, and small livestock numbers (Hajdu et al., 2020; Zamchiya, 2019; Zantsi et al., 2020). As such, some smallholders might be forced to sell their livestock in times of need, such as the current pandemic.

Further, smallholder farming systems keep livestock for many reasons (Kunene-Ngubane et al., 2018). Although under normal circumstances, the non-breeding stock is sold (Zantsi & Mack, 2019), in desperate situations, some farmers might be forced to sell their breeding stock, making them even more vulnerable. The most likely group of smallholders to be forced into these

actions are those who solely rely on agriculture for a livelihood and those who combine farming with a minor level of funding from social security, such as the one-child social grant. However, very few profiled smallholders fall under this category (Hajdu et al., 2020; Zantsi & Bester, 2019). This situation, therefore, is less likely to occur thanks to social security and the relief grant (Bassier et al., 2021). Nevertheless, delaying these grants and higher food prices might improve the odds of this situation occurring.

3.7. Impact of COVID-19 on Smallholder Farmers' Social Capital

Social capital is one of the interconnected Pentagon resources of the SLF and refers to the social resources that individuals rely on to achieve some objectives regarding their livelihoods (UNDP, 2017). It encompasses social kinships, political and religious networks, local cooperatives, and access to agriculture and research institutions (Baiyegunhi, 2014; Davenport & Hassan, 2020; Mhlanga & Ndhlovu, 2020; UNDP, 2017). While social kinships, at least in small-scale agricultural labour, seem to have declined over the years among smallholder farming systems, other forms of social kinships are still important. This decline may be attributed to the tremendous growth of wage labour widely reported in the Eastern Cape (McAllister, 2001; Mmbengwa et al., 2015; Zantsi & Mack, 2019).

However, smallholder households benefit from their social networks; for example, they can secure informal credits in cash and other forms, including tractor services received on credit (Chisasa & Makina, 2012). Using the 1995 and 2000 household surveys, Okurut (2006) found that access to bank credit is positively and significantly influenced by age, male, household size, education level, household per capita expenditure and race (Coloured, Indian or White). These results suggest that smallholders are unlikely to have access to formal credit.

There is also evidence of social gatherings in the form of farmer field schools where farmers learn from one another (Apleni et al., 2019). Chipfupa and Wale (2018) found that smallholder farming social capital positively impacts how smallholders achieve their aspirations of expanding production. Other important social services include visits to church, beer drinking, and other social events where information is shared (McAllister, 2001). Cooperatives are another important component of social networks. They contribute to social networks by enabling economies of scale and scope, increasing bargaining power, community participation and development, stability, innovation, and the legal protections facilitated when people come together rather than operating as individuals (DTI, 2012).

While pronounced challenges with agricultural cooperatives, including financial inefficiency (Yobe et al., 2020) and free rider problems (DTI, 2012), often hamper their full potential, they contribute to smallholder agriculture and food security. Agricultural cooperatives and projects stimulate households to revamp farming and learn innovative farming practices (Aliber & Hart, 2009). Most smallholders rely on public agricultural extension services (Lukhalo, 2017). While agriculture has been classified as an essential service, the elderly, most smallholders, were regarded as high risk and encouraged to stay indoors, which could mean restricted access to such services. However, given the poor access to this service under normal circumstances, its impact will likely be small.

4. CONCLUDING REMARKS AND SCOPE FOR FUTURE RESEARCH

This study has endeavoured to partially assess the perceived potential social impact of the COVID-19 pandemic on smallholder farming systems. The study was motivated by the contribution of smallholder agriculture to the livelihoods of many households, which is also praised in the National Development Plan as a tool for achieving rural economic growth, food security and employment. Considering the COVID-19 pandemic, only a few studies have attempted to assess the impact of the pandemic on smallholder agriculture.

Furthermore, the limited number of studies focus on the production aspects of smallholder farming (natural capital, using the lens of SLF) while ignoring other dimensions, such as human, social, and financial capital. Using an integrative literature review approach, which combined public data from the Department of Health and Statistics South Africa's Agricultural Household Survey and the rich literature on smallholder agriculture, this study used the SLF as a lens to explore and synthesise the potential impact of the pandemic on smallholder agriculture. Our synthesis of the literature suggests that the pandemic indeed has and will still have an impact on smallholder agriculture. However, the impact is not likely to be homogenous across the various types of smallholder farming and capital dimensions defined in the SLF.

Our findings suggest that the smallholder farming types headed by the elderly with more reliance on agriculture and wage labour are more vulnerable and are likely to feel most of the impact. Furthermore, while our findings suggest a potential impact on all the pentagon capitals of smallholders, through the SLF lens, the odds of impact on social, human, and financial capitals are high. It is, therefore, imperative to focus support (relief funds) on smallholders who are largely defined by these dimensions. Although relief from the Department of Agriculture,

Rural Development and Land Reform will soon be available, not all smallholders will benefit, and others may not, due to the limited nature of the support.

Our findings can partly help to direct funds to the most vulnerable and needy groups of smallholders. While this study has shed light on the social impact of the pandemic on smallholder agriculture, it was limited due to the specific nature of the data sources used. As such, we have only reported the likelihood and the perceived impact. There is still room for future studies using more detailed data and studies that will focus on provinces and districts to provide more specific and detailed insights.

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