FOOD SECURITY IN THE CONTEXT OF COVID-19: THE PUBLIC HEALTH CHALLENGE
THE CASE OF THE REPUBLIC OF SOUTH AFRICA

By Isabelle Tsakok

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Executive Summary

South Africa shows that being food self-sufficient is a far cry from being food secure when poverty is extensive, the majority of people suffer from the “quadruple burden of disease”\(^1\), the economy is highly unequal, and when improving the quality of the public health infrastructure remains a major challenge despite successive governments’ efforts.

The major factors that undermine food security and health in South Africa are directly or indirectly due to the long history of social exclusion of black South Africans, the hallmark of the apartheid system for decades. Under apartheid, the dualistic agricultural system favored the minority, white farmers, who owned 86% of farmland, and who, by the 1990s, produced more than 90% of agriculture value added. Already by the late 1980s, South African agriculture produced more basic food commodities than all other countries of Southern African Development Community (SADC)\(^2\) combined: e.g., maize, wheat, sunflower, and sugar (World Bank, 1994). In contrast, the Homelands into which the blacks were crowded, are poverty-stricken: the subsistence-oriented farmers earn less than 5% of the national wage rate (Hérault et al, 2009). The legacy of apartheid still largely shapes economic opportunities in South Africa, despite successive ANC governments’ efforts to reverse the discrimination.

Add to this the daunting challenge of climate change and a bimodal health system which condemns the majority to sub-standard health care, and you have close to a ‘perfect storm’.

Once again, South Africa, like the rest of the world, is being taught an old lesson. According to Snowden (2019), the wisdom that saved human societies in the past has to be brought to the front and center of government. As the ancients put it: “salus populi, suprema lex esto”; that is: public health must be the highest law, and all else follows from it (Adams, 2020). Realizing that pandemic preparedness is essential for survival and resilience makes achieving food security even more complex.

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2. SADC has 16 member countries: Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Madagascar, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. It was formed on Aug 17, 1992.
Introduction

If the COVID-19 pandemic has taught us anything, it is the central importance of public health to our food security. It actually should not be news, for as the historian Snowden (2019) reminds us epidemics are not new. In fact, he states that since the Second World War, “we have lived in an age of ever increasing emerging diseases … The question is not whether but when …. Unfortunately, along with the outbreaks, a recurring pattern of societal amnesia has prevailed. Each microbial challenge has been followed by a period of frenetic activity at every level, internationally and nationally, but has concluded with a lapse into forgetfulness” (Snowden, 2019). The question before the global community is whether we will again forget.

South Africa’s response to COVID-19 is a particularly interesting case because the African National Congress (ANC) governments post-apartheid (since 1994) have substantially expanded the social safety net system, including the public health infrastructure, since delivery of quality care is a constitutional obligation. South Africans spend about 8.5% of GDP on health care, 2% more than the average of low and middle income countries\(^3\) (Belli et al, 2018). More than 50% of the expenditure is private. This 8.5% is comparable (about $600 per capita) to other higher-middle income countries, including Mexico and Chile.

How have these higher expenditures on health helped South Africa respond to the COVID-19 pandemic? How has its food security situation been impacted? This paper focuses on the key structural characteristics of South Africa which have a major bearing on its resilience with respect to its food security situation and its health profile in the face of the onslaught of the COVID-19 pandemic since early 2020.

The Republic of South Africa (GNI/CAP $6,040)\(^4\)

Food self-sufficient but not food secure: South Africa, a middle income country, is considered food self-sufficient but still needs to attain food security in the following holistic sense, as defined at the 1996 World Food Summit: “food security which exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”. Despite substantial poverty reduction between 1996 and 2008, South Africa’s leaders are fully aware of the extensive poverty that still exists, irrespective of the poverty level used—it ranges from about 18% at $1.90 /day to 57% at $5.50/day (2014)\(^5\). Furthermore, although inequality between white and black South Africans has decreased, inequality within the black population has increased.

Dualistic agriculture, a problematic legacy from South Africa’s long apartheid past: After the Union of South Africa was proclaimed under British rule in 1910, racial segregation and white supremacy were the rule. The Land Act (1913) segregated Africans and Europeans on a territorial basis. By the early twentieth century, the African majority was confined to the Native Reserves (called African Homelands or the Bantustans), 13% of the land.

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\(^3\) Lower income countries spend roughly 5.8% of their GDP; higher middle income: 6.3% of GDP.
\(^4\) WDI. Year: 2019 (Atlas Method).
The remaining land, including the best agricultural land was reserved for the whites. By the end of apartheid in 1994, the white minority—10.9% of the population—owned 86% of farmland. So, 82 million acres was concentrated in the hands of some 60,000 white owners, while 13 million black farmers were crowded into 14% of farmland, where their land rights were unclear or contested (Lahiff and Li, 2012)\(^6\). In addition to land, government assistance to white farmers was extensive. At the same time, every avenue via which black farmers could improve their incomes—access to land, input, including credit, and output markets—was closed. The white government channeled Africans to become laborers on European farms, in mines, and in manufacturing. Draconian measures controlled where Africans could live and work; e.g., those who worked in urban areas could live only in townships. White farmers were not only favored with land, but also by a whole structure of policies and institutions that subsidized their inputs and guaranteed markets for their outputs at remunerative prices. Crowded onto the worst agricultural land, African subsistence farmers in the Homelands could not even meet the subsistence needs of the inhabitants. The Homelands were net food importers (World Bank, 1994). The Homelands were and still are poverty-stricken: the subsistence-oriented farmers earn less than 5% of the national wage rate. By the mid-1980s, agriculture in the Homelands was estimated to meet only 16% of food requirements of the Africans living there, and only 10%-20% at most of their incomes in the Homelands as most of their incomes came from repatriated migrant earnings and pensions (World Bank, 1994). The African agricultural laborers on white farms earn a third of the national wage rate (Hérault et al, 2009).

Agriculture—socio-economic importance far surpasses its declining relative importance in a mining-driven economy: South Africa’s economy was primarily driven by mining and quarrying in the early years. From 1911 to 1960, the share of mining and quarrying declined from 27.7% to 10.4 % of GDP\(^7\). Over the same period, agriculture, forestry, and fishing contributed 21% of GDP, declining to 12% by 1960, and 4.7% by 1991 (World Bank, 1994). Agro-processing contributed another 4.8% of GDP (2014)\(^8\). Around 2018, the relative share of mining was reduced to 7% of GDP but contributed some 28% of total exports. South Africa has remained a top producer of several minerals including gold, diamonds, platinum-group metals (PGM), coal, and iron ore. In the earlier decades, mining promoted the development of finance, energy, and transport. Its multiplier was estimated to be around 2 in the 2000s (World Bank, 2019). Apartheid policies imposed massive distortions in favor of the white minority: land and capital went to the whites. Africans were allowed to work only as unskilled labor for white South Africans, because skilled and semi-skilled jobs were reserved for whites in the Job Reservation and Colour Bar Acts, along with the first iteration of the Mines and Works Acts of 1911.

The legacy of exclusion through land distribution still runs deep: In agriculture and rural areas, the post-apartheid governments have not been able to redress and reverse 350 years of race-based colonization and dispossession, through their land reform program which has three prongs:

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6. As farms consolidated, the number of white commercial farmers decreased to around 43,000 (2018).
7. Between 1870 and 1886, diamonds and gold were discovered in Kimberly and Witwatersrand respectively. Diamond digging became corporate mining, monopolized by De Beers Consolidated Mines controlled by Cecil Rhodes.
1. Land restitution for victims of dispossession;
2. Tenure reform for victims of past discriminatory practices;
3. Redistribution through purchases on the open market.

After over 25 years of land reform, the post-apartheid governments still need to radically equalize the asset base, give tenure security, and increase the incomes and opportunities of the black farming population (Lahiff and Li, 2012). Weak property rights, especially in the former homelands, limit the value of property, including its value as collateral to access credit finance. Inadequate titling undermines investment, and therefore economic and job growth. Calls for land expropriation without compensation are now a major source of fragility in the South African social contract (World Bank, 2018). The experience of Zimbabwe’s Fast Track Land Reform (2002) is a powerful reminder of the turbulence land grievances can unleash. The target of transferring 30% of land to black farmers by 2014 was not achieved; only around 8% was. The new target date for delivering on land reform is 2025 (World Bank, 2018).

Performance of white agriculture pre- and post-apartheid governments—production, productivity, and food self-sufficiency: By the mid-1990s, white agriculture produced some 90% percent of agriculture value added. However, it was neither efficient nor equitable, though South Africa exported basic commodities and was considered food self-sufficient. South African white agriculture thus achieved food self-sufficiency, a major goal of the apartheid government. Agriculture like the overall economy was capital intensive and was protected by high tariffs and quotas as the apartheid government adopted an inward-looking import-substituting industrializing strategy. By the late 1980s, South African white agriculture already produced more basic food commodities than all other countries of the Southern African Development Community (SADC) combined: e.g., maize, wheat, sunflower, and sugar (World Bank, 1994). Under apartheid, agriculture total factor productivity (TFP, % per year) grew by 1.26 from 1947-91—low by international standards, and it masks much variation among subsectors, with the labor-intensive horticultural sector growing at 2.42, and livestock and field crops at only 0.77.

Sluggish economy-wide output and total factor productivity growth: Low total factor productivity (TFP) growth of the entire economy characterized most of the post-Second World War years under apartheid, especially when compared to the high growth economies of South Korea, Taiwan, and Japan during that period. Thus from 1950-73, TFP growth (% per year) was 0.2, -0.5 from 1973-84, and -1.1 from 1981-88 (World Bank, 1994). Since the end of apartheid, even with increased market- and export-orientation, growth in agricultural production and exports has been sluggish. The African National Congress government adopted an export-oriented strategy, removing many distortions, but it was still complex and favored some subsectors. The favored key food-processing subsectors were sugar refining, dairy products, and grain milling: all were protected with tariffs averaging nearly 17%. Overall annual GDP growth rates declined from around 3.5% from 1971-75 to around 1% from 1986-92 (World Bank, 1994).

A food self-sufficient economy with high unemployment and widespread food insecurity: South Africa is a striking case of a country where food self-sufficiency coexists with

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9. Thus TPF growth (% per year) in South Korea, Taiwan, and Japan during 1950-73 was 2.8, 3.5, 5.5 respectively; for the 1973-84 period, they were 1.4, 1.3, 2.0 respectively.
widespread food insecurity (in the holistic sense specified above, here labelled FSH). South Africa’s experience shows that high inequality resulting from centuries of exclusion within a persistently sluggish growth environment, are powerful factors undermining food security. Moreover, overall growth since the end of apartheid in 1994 has been relatively jobless. Growth picked up in the early 2000s—reaching 5% by 2005—only to stall again after the 2007-08 global food-fuel-financial crisis. As a result, unemployment peaked at nearly 28% in 2017. Young people (15-24) have been hit particularly hard—nearly 53% unemployed in 2012 and nearly 56% in 2019\(^\text{10}\). With high inequality and low growth, poverty is extensive. The top 10% of wealthy South Africans own 70.9% of total net household wealth (much South African wealth is held abroad), while the poorest 50% own only 4.2%. The Gini coefficient of income inequality was estimated at 0.7 (2008) and the consumption Gini at 0.63 (2009 and 2015)\(^\text{11}\). Thus the top decile of the population accounts for 58% of the national income while the bottom decile only 0.5% and the bottom 50% less than 8%. Poverty has been substantially reduced under ANC governments but is still high for a middle-income country. From 1996 to 2008, poverty was nearly halved, but since then, poverty reduction has stalled (World Bank, 2013). At the national poverty level, 55.5% could not meet their minimum nutritional requirements (the upper poverty line). At this upper poverty line, poverty incidence is highest among blacks with a poverty incidence (%) of 64.2 versus 41.3 among colored; 5.9 among Indians; and 1.0 among whites (2015). In rural areas, in particular the former Homelands, poverty incidence is 81.3% versus 40.6% in urban areas (World Bank, 2018). Life expectancy at birth is only 64 (2018) one of the lowest for a middle-income country, for which the average is 72.

Global warming poses an existential threat to millions: In addition to the legacy of exclusion, South Africa faces daunting twin challenges from climate change.

1. South Africa’s energy sector is heavily dependent on coal and it is one of five top major coal exporting countries. However, it will need to transition to a low-carbon economy, within a decade or so, a short time for this transition. The global community has been urged to cut global carbon emissions by 45% compared to 2010 levels by 2030. IPCC scientists tell us if global warming above the 1850s levels (which has already reached 1.0ºC), climbs to 2ºC by 2050, adaptation will be increasingly taxing on ecosystems and our food systems and health. The global challenge is to mitigate the rise and limit it to 1.5ºC by 2050. Achieving this would require us to use all the tools we have to “sequester the carbon emissions and steer the future of the Earth in a direction we can live with” (IPCC, 2018).

2. Climate change is predicted to inflict increased frequency and severity of droughts and heat waves in a country that is already semi-arid with an annual average rainfall of 495 mm, ranging from less than 100 mm/year in the western deserts to 1,200 mm/year in the eastern part of the country. Some 65% of the country does not receive enough rainfall for successful rainfed crop production. Therefore this part is mainly used as grazing land. The east is predicted to have more rainfall. Nearly 13% of cultivated area is irrigated (2012)\(^\text{12}\). This part is mostly occupied by large-


scale commercial farms owned by whites, and allocated to high value crops such as fruit (e.g. grapes) and vegetables, tobacco, and industrial crops such as sugar and cotton (FAO, 2016)\textsuperscript{13}. Lower rainfall threatens to amplify already existing water insecurities. With increasing urbanization, Cape Town and other cities are already experiencing severe rationing of their water services.

The transition to a low-carbon economy threatens employment, and hence livelihoods and food security, of labor in coal-intensive activities, at least in the short run before alternative sources of energy are developed. Furthermore, those threatened in this dualistic agriculture are not the large-scale white farmers, estimated at around 43,000, who produce the bulk of the agricultural value added. The majority threatened are smallholders who fall into three broad categories: (i) smallholders numbering roughly 11,000-15,000; (ii) emerging commercial farmers, 350,000-700,000; and (iii) subsistence farmers, 2.5-3.5 million. These smallholders are poorly served by the rural infrastructure; land access, secure land tenure, and property rights; credit and agricultural services, for both crops and livestock (World Bank Group, April 2018). In its Vision 2030 enshrined in the National Development Plan (2012-2025), the government has started to emphasize integrating smallholders into value chains in rural areas and making agriculture more climate-resilient\textsuperscript{14}. Improving the food security of these millions will depend heavily on the government’s ability to respond effectively to these twin challenges.

Social safety network since 1994 has improved food security of the poor: The ANC governments have doubled social expenditures and vastly increased the number of beneficiaries. Social insurance programs including old-age pensions, child support grants, conditional grants for school feeding and early childhood development programs, and disability grants, cover about 16 million people in total (World Bank, 2013). The programs are well targeted to provide income relief to the poor. For example, more than 60% of the households benefiting from the child support grants belong to the two poorest quintiles of the national consumption distribution (Beegle et al, 2018). With continued low growth, the high current deficit inevitably limits the financial resources for expanding the social safety net.

Early government response to the onslaught of the COVID-19 pandemic: In response to the pandemic, President Cyril Ramaphosa imposed a lockdown in mid-March and injected a 500 billion Rand stimulus on April 21. Furthermore, on March 23, Ramaphosa and his cabinet created a Solidarity Fund (SF) with a third of their salaries. By early April, South African businesses had contributed to growing the SF to around $117 million (Schneidman et al, 2020). The government has also put in place several financial and regulatory measures to inject liquidity into the economy, including topping up welfare grants as a pandemic relief measure. Significant as these are, they are only the beginning, as the Reserve Bank is predicting a 6.1% GDP contraction. Recovery will be an even greater challenge. In mid-March, the government closed its borders thus hindering the free movement of people, goods and services (Bouët et al, 2020). Ramaphosa is mobilizing the government’s substantial resources to contain the virus and assist businesses and the most vulnerable\textsuperscript{15}.

The bimodal health infrastructure of South Africa under COVID-19 impact: Despite the significantly expanded access to public health facilities brought about by ANC governments since 1994, the COVID-19 pandemic is proving to be a body blow, as it has been in much of the world. Despite the government’s decisive early response, “South Africa is now battling one of the world’s fastest-growing coronavirus outbreaks that is overpowering hospitals and has caused a dramatic increase in deaths” (Wall Street Journal, July 26, 2020)\(^{16}\). South Africa's current viral infection-cum-mortality experience shows clearly that the country’s health profile and its public health infrastructure is a major determinant of a nation’s resilience. Not surprisingly, South Africa’s health infrastructure is dualistic/bimodal as is its agriculture, since the legacy of exclusion inherited from apartheid still has a major grip over the country despite strenuous government efforts to counteract it. This dualism is exemplified in the public health system which has to serve 84% of the population on 48% of total health expenditure; while the private system caters to the remaining 16% accounting for 52% of total health expenditure (World Bank, 2018). South Africa suffers from the ‘quadruple burden of disease’: (i) infectious (communicable) diseases in particular HIV/AIDS and TB\(^{17}\); (ii) non-communicable diseases (e.g., diabetes, hypertension, and cardiovascular); (iii) high maternal and child mortality; and (iv) trauma. Poor health outcomes are disproportionately associated with poverty, as the poor tend to live in crowded, unsanitary conditions. The incidence of HIV/AIDS is higher among women who suffer from high levels of gender-based violence, including rape. Although primary care is ‘free’, public health care patients are frequently told that medicines are not available or there are long waiting times. The government’s planned National Health Insurance (NHI) system to eradicate the dualism in the health care system and vastly improve the quality of health care services to all is a step in the right direction. However, it will need to overcome tremendous odds including financial, personnel, and administrative constraints; opposition of the middle class who have access to quality health services; not to mention poverty-related factors, and high exposure to risk factors and violence which undermine the health status of the poor (World Bank, 2018).

Food security is inextricably tied to the public health infrastructure: South Africa’s vulnerability to the spread of the coronavirus clearly show that the extent of its food security is inextricably tied to the public health status of its people and their access to a quality public health infrastructure. Being considered food self-sufficient at the macro level is virtually meaningless for the food security of millions in a highly dualistic agricultural system and highly unequal economy. If there is any silver lining in the current COVID-19 pandemic, it is our rude awakening from the complacent belief that infectious disease is a thing of the past. Prevention is the best defense against the lightning spread of contagious diseases, but prevention requires vigilance, and vigilance requires a strong public health system.


\(^{17}\) TB (Tuberculosis) is the leading cause of death in South Africa. It is mostly associated with the HIV/AIDS epidemic affecting more than 7.2 millions South Africans.
Bibliography

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