



SHEFS

POLICY BRIEF 2

Success to the successful:
**Systemic inequality in the
commercial broiler system**

WHAT IS SHEFS?

SHEFS (Sustainable and Healthy Food Systems) is an international research programme using novel methods to generate and synthesise evidence, and to help decision makers create policies that deliver nutritious and healthy diets in an environmentally sustainable and socially equitable manner. The programme is funded by the Wellcome Trust.



ABOUT THIS SERIES

This series of five policy briefs draws on research conducted by South African and United Kingdom-based researchers within the SHEFS consortium. The series seeks to encourage policy makers working on the commercial broiler chicken system in South Africa to adopt a broad systems-based perspective in their work. This brief highlights the systemic inequality in the commercial broiler system.

BRIEFING 2

Highlights the systemic inequalities which are created by policies that favour large-scale commercial producers, and which, in turn, generate price-driven nutritional inequalities for consumers

BRIEFING 3

Explores the potential nutrition and health implications of policies aimed at increasing per capita consumption of broiler chicken meat

BRIEFING 1

Provides a broad overview of the challenges associated with current broiler industry policy in South Africa

BRIEFING 4

Highlights the fragmented nature of food safety governance within the context of the broiler chicken system and the potential risk of foodborne disease in South Africa

BRIEFING 5

Explores the hidden impact of the commercial broiler chicken system on the environment and the broiler system's climate change vulnerability

Barriers for small-scale actors and nutritional inequality for low-income consumers

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SUMMARY

This policy brief highlights systemic inequalities which are created by policies that favour large-scale commercial producers. These policies, in turn, generate price-driven nutritional inequalities for consumers.

The commercial system has outcompeted smaller-scale actors, and dominates the production and distribution of broiler products. Consequently, small-scale actors face barriers to accessing both inputs and markets. In addition, although a wide range of broiler

products are made available through the commercial system, more affordable products often have poorer nutritional quality than more expensive products. While the current system aims to meet food security needs, the potential of small-scale producers to alleviate poverty and improve the food and nutrition security of lower-income consumers deserves attention and investment. Increasing the opportunities for small-scale producers through diversifying supply chains can also improve the resilience and sustainability of the broiler system overall.

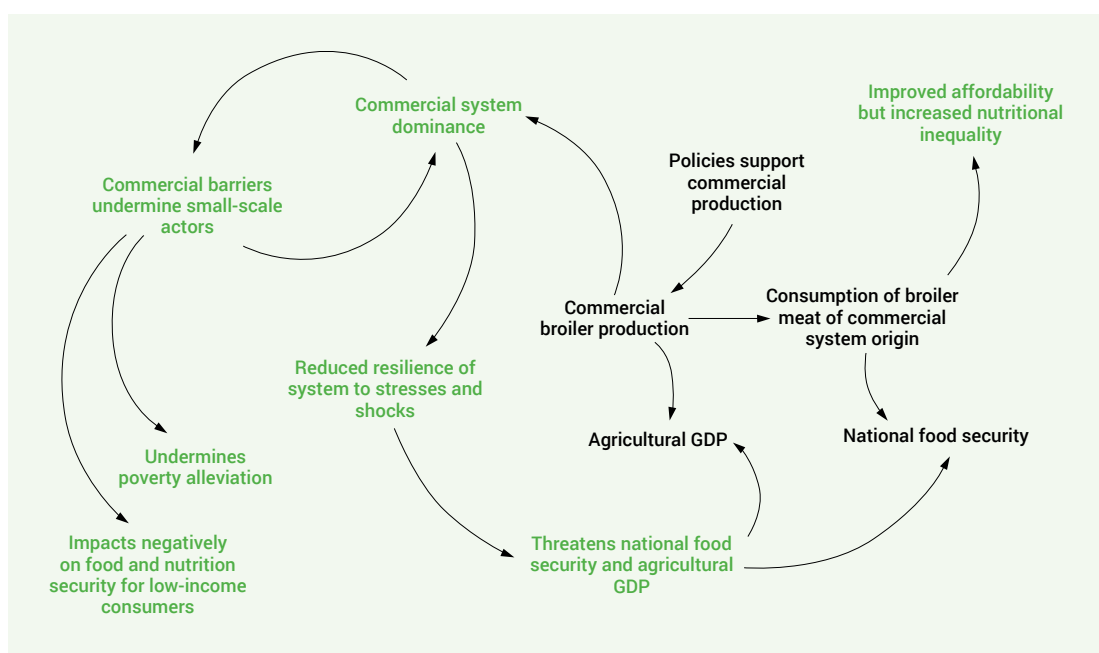


FIGURE 1

- Current focus of commercial broiler policies and their intended outcomes
- Wider unintended consequences revealed with a food systems approach

RECOMMENDATION

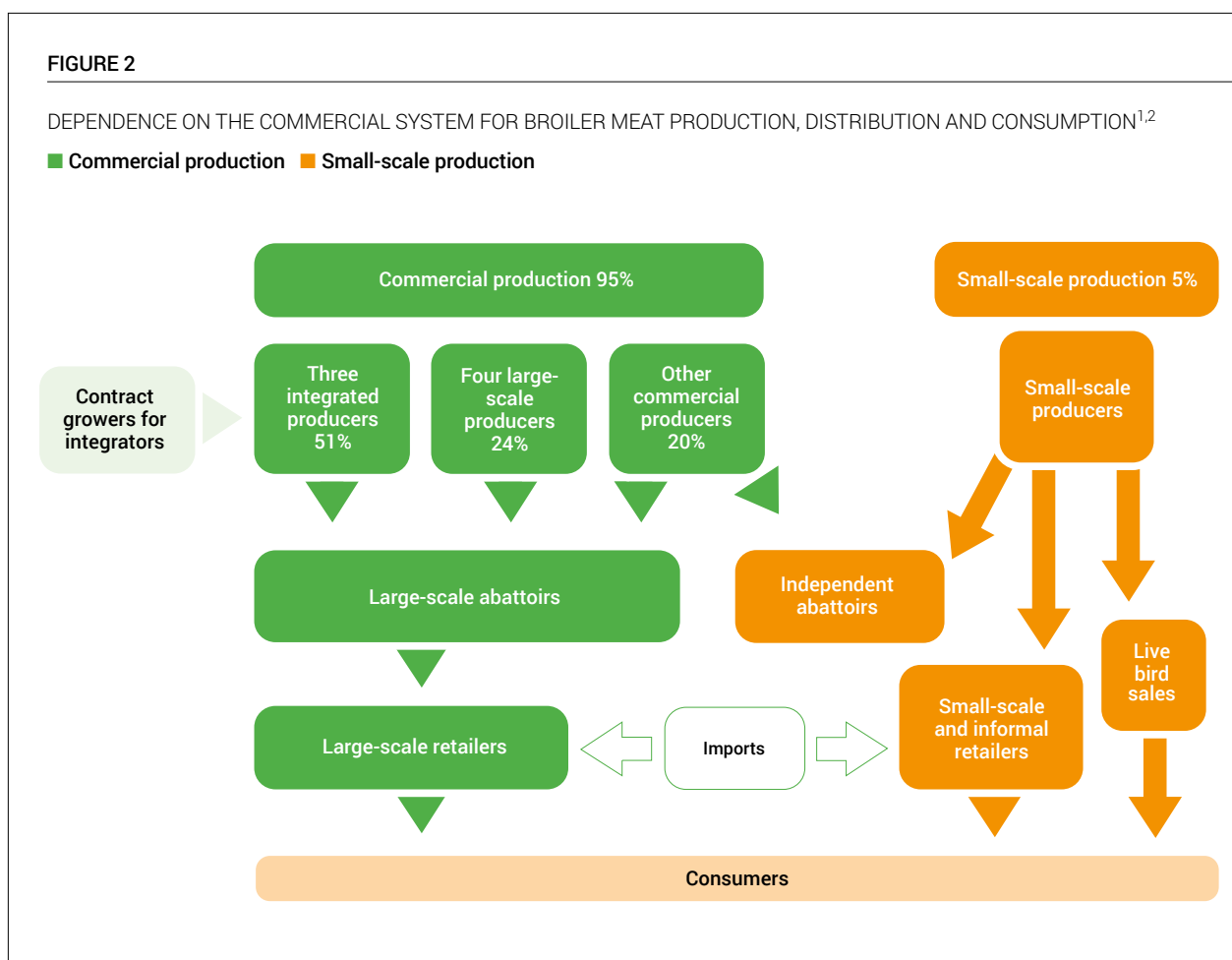
Develop policies that also invest in and empower small- and medium-sized producers, and their independent and informal distribution networks – to leverage their potential to improve food and nutrition security and contribute to poverty alleviation.

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Introduction

South Africans currently consume, per capita, on average almost double the volume of broiler chicken meat compared to 20 years ago. The system supplying and driving the increase in these consumption levels is almost entirely dependent on commercial and intensive production systems that are synergistically linked to formal retailers and quick-service restaurants (**Figure 2**). Seven large-scale commercial producers contribute around 75% of broiler meat production, and an estimated 80% of broiler meat is retailed through formal outlets^{1,2}.



Existing policies within the South African Poultry Master Plan focus on further developing this commercial system as the main supply channel to consumers. Consequently, the large-scale commercial system actors occupy an increasingly dominant position within the system, which has several implications worth noting. Large-scale production systems, consisting of large flocks of birds kept at high density, are at greater risk than smaller producers of the catastrophic consequences of infectious disease outbreaks like avian influenza³.

Consequences include culling of entire flocks and the associated costs, as well as the costs of disinfection and delayed restocking of houses. The COVID-19 pandemic also exposed several supply chain weaknesses in countries that lacked flexibility in their food systems, specifically broiler systems^{4,5}.

Diversification across the food system is advocated as a means to improve the system's resilience to stresses and shocks⁶. Investing also in small-scale poultry production has numerous benefits, which



include contributing to increased household food and nutrition security, improved maternal and child health, greater women empowerment, and more household purchasing power, especially in resource-poor settings^{7,8}.

Broiler carcass processing generates several product options for consumers, across a range of prices, ensuring affordability for the majority of consumers. However, the more affordable broiler meat options have lower protein and higher fat content than more expensive cuts⁹. Formal marketing of the commercially produced broiler products within

modern food environments, combined with aspirational lifestyle advertising, leads to an increase in the consumption of the unhealthier products and in the associated risk of obesity and non-communicable disease¹⁰. These changes in the food environment have led to South African households producing less, and buying more, of the food that they consume¹¹. South Africa's dependence on a single system to supply broiler meat to consumers, maximises economies of scale, but it favours the few, and creates food security vulnerability due to a lack of alternatives.





Research findings

Inequalities in the system

The commercial broiler production system, and the formal retail system that distributes its products, have deep historic roots. The continued growth of the commercial system, now formally supported through the Poultry Master Plan, strengthens its competitive edge, outcompeting independent medium-sized actors who have largely disappeared from the system¹². Small-scale producers continue to survive on the periphery or outside of the system, primarily through the sale of live birds in the informal market¹³.

The Poultry Master Plan supports the development of Black contract farmers to supply commercial producers with grown chickens for slaughter and processing. The Plan also promotes broiler production as an easy entry option to livestock keeping on the smaller scale. However, the commercial system's structure, primarily the dominance of a few integrated companies, presents several barriers to those wishing to enter. Two of the largest producers hold exclusive franchises for the parent stock of the two main broiler breeds in South Africa. This gives them the control of the supply of day-old-chicks, and the potential to lock out independent producers from vital inputs for the establishment and growth of their business¹³. While large-scale integrated companies, who use contract farmers to grow broilers, do provide these farmers with access to inputs and markets, they lock their growers into the contract, preventing them from finding opportunities to sell independently via alternative markets^{12,13}. This market concentration brings benefits to some, but it aggravates inequalities elsewhere¹³, and reduces both the resilience of the system and the opportunities for the potential benefits of small-scale production mentioned earlier.

Government policies that provide subsidies for emerging farmers, to develop infrastructure and capacity, do not address these barriers for

farmers to access essential production inputs. This subsequently leads to the development of excess capacity within the businesses, resulting in inefficiencies, and an undermining of profitability¹³. Constrained access to credit, and challenges in liquidity and cash flow, drives smaller-scale producers to coping strategies, such as buying smaller quantities of feed at higher cost, diluting commercial feed with maize and selling off broilers before they mature¹³. These strategies aggravate already high transaction costs (for feed), erode productivity potential and overall production efficiency of the broilers, and exacerbate existing profitability challenges¹³. Large-scale integrators and retailers do not have strong enough incentives to accommodate smaller-scale producers and suppliers into the formal value chain¹³. As a result, the small-scale producers resort to retaining broiler stock for longer than is cost effective¹³. The selling-off of stock, either early or late, creates flocks of mixed ages (as opposed to the all-in-all-out cycle). This presents higher risks of disease transmission and challenges in providing an optimal environment and age-appropriate feed, thereby undermining the ability to take advantage of the genetic production potential of the broilers¹³. Small-scale producers and newcomers also often lack technical knowledge and skills in broiler husbandry, as well as the business skills required to ensure profitability and growth of their enterprises¹³. A co-ordinated intervention package that recognises the complexity of these issues is recommended¹³.

“While this market concentration brings benefits to some, it aggravates inequalities”



Nutritional inequalities for consumers

Broiler carcasses yield several cuts of meat and offal for consumption. The formal markets (supplied predominantly by the commercial producers) present several broiler product options, with a variety of prices – ensuring affordability to consumers from a wide socio-economic range¹⁴. All edible parts of the broiler carcass are sold, including the giblets (neck, heart, liver and gizzard), other lower cost offal products (head, feet and intestines), and the fat and skin trimmings from more expensive cuts¹⁴. While these lower priced products are more affordable to low-income consumers, they have little or no nutritional value, thereby reinforcing societal inequality among consumers at a nutritional level¹⁴. In addition, the linking of the 2017–18 foodborne listeriosis outbreak to a low-cost processed meat made from

mechanically deboned meat (including that of broiler origin) suggests a higher risk of foodborne disease for low-income consumers, even within the formal market system¹². By contrast, the purchase of a live bird provides the nutritional benefits of consuming the full range of cuts and offal from the whole carcass in the same household. These live bird sales are also offered at prices that represent “good value for money”, having bypassed several steps in the formal processing, packaging, and distribution chain. Live birds are also attractive to those without access to the refrigeration or reliable electricity supplies that are needed to store purchased meat safely¹³. However, the cost of a single large transaction for a whole bird may still present an affordability barrier for some.

RECOMMENDATION

Develop policies that also invest in and empower small- and medium-sized producers, and their independent and informal distribution networks – to leverage their potential to improve food and nutrition security and contribute to poverty alleviation.



SPECIFIC RECOMMENDATIONS INCLUDE:

- 1 Invest in, and establish, aggregation schemes to address the financial and structural barriers to accessing inputs (day-old chicks, feed, and veterinary services and products).
- 2 Provide credit schemes to improve liquidity for small-scale enterprises.
- 3 Create stronger incentives for the inclusion of small-scale producers in the existing formal markets, or strengthen alternative, independent markets options.
- 4 Invest in, and provide, training to improve the business and technical production skills for newcomers to the broiler system, and for those actors currently unable to reach their full potential.
- 5 Address socio-economic inequalities to remove the price barrier, and improve affordability, of healthier broiler products.



Conclusion

These recommendations to address inequalities in the commercial broiler system have the potential to alleviate poverty among small-scale actors and to improve the food and nutrition security, and health outcomes, of consumers – particularly those with lower incomes. Policies that support the investment in small- and medium-scale actors in the broiler system, and strengthen their supply capacity, will also result in more diverse broiler supply chains, thereby adding resilience to the system.



References

1. BFAP, *Evaluating the competitiveness of the South African broiler value chain*. 2016, The Bureau for Food and Agricultural Policy (BFAP) and National Agricultural Marketing Council (NAMC).
2. SAPA, *Industry profile*. 2019, South African Poultry Association.
3. Gilbert, M., X. Xiao, and T.P. Robinson, *Intensifying poultry production systems and the emergence of avian influenza in China: a "One Health/Ecohealth" epitome*. Arch Public Health, 2017. 75: p. 48.
4. Chapot, L., et al., *A Global Media Analysis of the Impact of the COVID-19 Pandemic on Chicken Meat Food Systems: Key Vulnerabilities and Opportunities for Building Resilience*. Sustainability, 2021. 13(16).
5. IPES-Food, *COVID-19 and the crisis in food systems: Symptoms, causes, and potential solutions*. 2020, International Panel of Experts on Sustainable Food Systems (IPES-Food).
6. Hertel, T., et al., *Diversification for enhanced food systems resilience*. Nature Food, 2021. 2(11): p. 832.
7. Alders, R.G., and R.A.E. Pym, *Village poultry: still important to millions, eight thousand years after domestication*. World's Poultry Science Journal, 2009. 65(02): p. 181.
8. Wong, J.T., et al., *Small-scale poultry and food security in resource-poor settings: A review*. Global Food Security, 2017. 15: p. 43.
9. van Heerden, S.M., et al., *Nutrient Content of South African Chickens*. Journal of Food Composition and Analysis, 2002. 15(1): p. 47.
10. Igumbor, E.U., et al., *"Big Food," the Consumer Food Environment, Health, and the Policy Response in South Africa*. PLOS Medicine, 2012. 9(7): p. e1001253.
11. Pereira, L.M., *The Future of South Africa's Food System: What is research telling us?* 2014, South African Food Lab: South Africa.
12. Queenan, K., et al., *A Qualitative Analysis of the Commercial Broiler System, and the Links to Consumers' Nutrition and Health, and to Environmental Sustainability: A South African Case Study*. Frontiers in Sustainable Food Systems, 2021. 5.
13. Cuevas Garcia-Dorado, S., et al., *Using qualitative system dynamics analysis to promote inclusive livestock value chains: A case study of the South African broiler value chain*. Frontiers in Sustainable Food Systems; Lands, Livelihoods and Food Security, 2021.
14. Queenan, K., et al., *A food systems approach and qualitative system dynamics model to reveal policy issues within the commercial broiler chicken system in South Africa*. PLOS One, 2022. 17(6).



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