

Part 1

True Cost of Egg Production across five Sub-Saharan African countries

Sonia Mountford, founder of EATegrity

What was the motivation for this research?

To help inform and be utilised by

HELPING TO END THE CAGE AGE TOGETHER!

campaign work and engagement with industries.



Big Dutchman Univent System example of caged layers in commercial industrialised system.

Key Research Aims

- To use the findings to advocate for policy and industry practice changes to improve the welfare standards for caged hens in alignment with SAFCEI's goal of phasing out the caged hen industry in South Africa.
- Ascertain what knowledge gaps there are that hinder campaign progress due to lack of current and reliable information and data.
- To share research findings and encourage collaboration between groups within the five countries to access local, "on the ground knowledge", research and inform strategy going forward.
- To better understand the roles and motivations of decision-makers promoting expansion of intensive caged production systems, which are increasingly dominated by few, large, vertically integrated international or local companies.

How were these five countries chosen?

1. South Africa – the base of SAFCEI’s operations.
1. Zambia – SAFCEI has a long time partner, the Zambia Alliance for Agroecology and Biodiversity (ZAAB) in Zambia.
1. Zimbabwe – often referred as SA’s closest neighbour. SAFCEI also have an active FLEAT group in this country.
1. Tanzania – SAFCEI has very active FLEAT members in Tanzania including good relationships with Jane Goodall’s Roots and Shoots, who are also part of the OWA alliance.
1. Malawi – National Youth Network On Climate Change (NYNCC) part of the OWA alliance.

Let's first acknowledge



Knowledge Gaps: What we don't and can't definitively know (yet)

- The significant impacts of the intensive poultry farming on human/poultry health and environmental footprint in African countries.
 - >Chemical/microbiological contamination of air/water/soil
 - >Impacts on the health of workers, neighbouring population and consumers
 - >Antibiotics and antimicrobial resistance to wider society
 - >Impact on avian flu outbreaks (HPAI & LPAI)
- Job creation.
 - >Data on mechanisation of poultry industry vs number of jobs over a decade or more
- Nutritional profile of eggs in differing production systems.
 - >Some methods of production, like organic or pasture-raised can have higher levels of certain nutrients like omega-3 fatty acids, vitamin D, vitamin E, and beta-carotene
- Impact of global (regulatory) standardisation and trade policies on system adoption.
- Scale of impact of funding and policy adoption of digitalisation (mechanisation).

Barriers accessing reliable information

- Literature is scarce. There is more data and research available on poultry broiler industry than the egg sector. This is due to the international trade of poultry broiler meat having greater potential than eggs.
- The industrialised poultry sector is historically opaque and industry is constantly evolving with developments in breeding, medication, nutrition, and management practices.
- Industry reports are sometimes difficult to follow when information is provided in industry jargon and possibly purposefully vague.
- Media lacks insightful knowledge (no independent media experts) to challenge industry claims or provide more depth to industry press releases.
- University studies in Africa predominantly focus on research that is supportive of university-industry collaborations of agricultural faculties



Key Research Findings

Who holds the power—understanding influence of local and global power

"The geographic reach of multinational corporations in many industries means that mergers and cartel agreements in one jurisdiction such as in North America or Europe may impact on countries around the world, including in southern Africa."

University Johannesburg, Centre for Competition, Regulation and Economic Development, Sumayya Goga and Simon Roberts.

Who holds the power— understanding influence of local and global power

- The choice by African Union governments to fully deregulate the agri-food sector has resulted in the rising economic power of the private sector, its domination and financialisation, and a de facto private food system governance.
- Poultry production in the Southern African region is led by large vertically integrated firms, predominantly from South Africa. These firms have established vertically integrated operations outside South Africa and also increased investment into downstream activities. However, despite developments, there have been limited moves towards coordinated development of a regional value chain (RVC).

Who holds the power— understanding influence of local and global power

- On a country bases—“the poultry regional value chain (RVC) is a bilateral oligopoly, where the lead firms are supermarkets and large poultry producers with exclusive rights to multi-territorial breeding rights. Both large producers and the supermarkets play an important role in the formation and structure of the poultry RVC, with important implications for regional integration and industrialisation.”
- Impact of access to affordable poultry feed is crucial to expansion of poultry industry in Africa. Coordinated regional value chain (RVC) development would require the repeal of trade barriers and non-tariff barriers, and coordinated investment into the production of animal feed raw material in countries such as Zambia.

Supranational organisations—including the United Nations (UN) (although disputed as rather an intergovernmental organization), North Atlantic Treaty Organization (NATO), European Union (EU), Association of Southeast Asian Nations (ASEAN), Arctic Council, and African Union— can challenge state sovereignty by limiting the economic or political actions of member states. Supranational financial institutions include The World Bank and the World Bank Group, International Monetary Fund, European Bank for Reconstruction and Development, European Central Bank, Asian Development Bank and other institutions. Supranational Health in the form of the World Health Organisation.

Key Research Findings / 2

Drive for digitilisation of Africa and adoption of Fourth Industrial Revolution (4IR)

African Union's Agenda 2063

"The need for technology transfers, research and development, and investments in key industries such as agriculture and manufacturing are emphasised as critical components for sustainable growth.

Ultimately, the digital economy is seen as both a pathway to industrialisation and a tool to unlock Africa's full potential on the global stage."

Key Research Findings / 2

Drive for digitilisation of Africa and adoption of Fourth Industrial Revolution (4IR)

- Agenda 2063 of the African Union, which is seen as Africa's roadmap and grand plan for transforming Africa into a future global superpower, needs further focus on how its adoption of a digitised agriculture sector will impact poultry sector intensification.
- The African Union (AU) Digital Agriculture Strategy (DAS) and Implementation Plan establish a framework for the digital transformation of African agriculture and cover the period from 2024 to 2030.
- Continental Free Trade Area (AfCFTA), signed by 55 AU member states, targets the establishment of regional value chains, and the DAS can help to build the required digital environments. The DAS promotes digital agriculture to achieve “Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods” in line with the 2014 Malabo Declaration which was recalled at the 2022 AU assembly.

- Chicken farming in Africa is progressively growing as the global demand for chicken meat and eggs is rising at an exponential rate but chicken poultry production has remained low compared to other regions of the world.
- Efforts are being made to enhance Africa's poultry production to match the rising consumption rates. Emerging technologies such as robotics and artificial intelligence are encouraged for automation of routine processes, to even the evaluation of the welfare of the birds. [See: African Union High-Level Panel on Emerging Technologies (APET)]
- Genetic “improvement” of indigenous and local breeds have been initiated in some African countries. The SAPPISA project (Sustainable Access to Poultry Parent Stock to Africa) was initiated to give rural African farmers access to improved genetics with tailored breeds that perform well to the local needs and environmental pressures of the region. In 2018, Hendrix Genetics received a multi-year grant from the Bill & Melinda Gates Foundation.

The African Union (AU) Digital Agriculture Strategy (DAS) and Implementation Plan establish a framework for the digital transformation of African agriculture and cover the period from 2024 to 2030. Technology is seen as a driver for the transformation of economies, including agriculture, and economies must be environmentally sustainable and resilient to climate change.

"Responsible change in our food systems is about looking at and understanding the roots of these problems and addressing them at the level where they need to be addressed, and that often does not require innovation, it requires building political will."

Julie Guthman

Julie Guthman

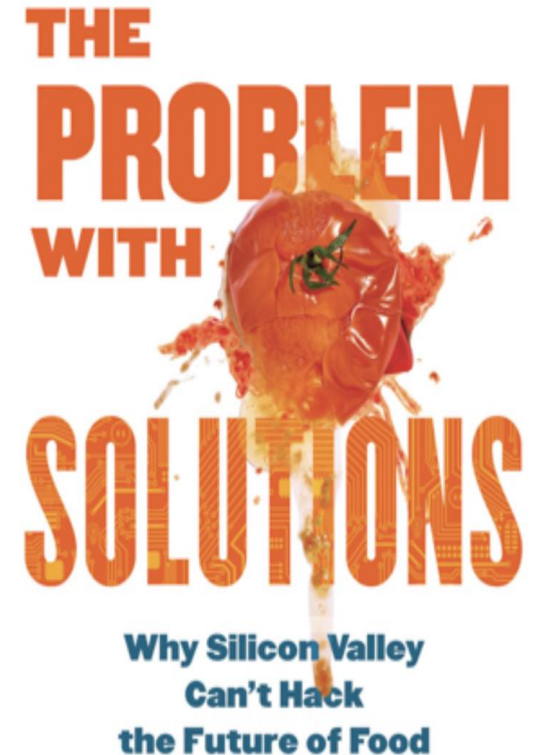


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The historical burden of intensive animal agriculture on the well-being of farm animals is a well-documented welfare issue. Yet the risk to food security, environmental biodiversity and human health in Africa remains largely unexplored. Nutritional food security policy communication and food system transformation advocacy largely excludes animal welfare. The complexity of Africa's food system needs a complex system approach—bringing diverse skills and perspectives to achieve common goals.