



TABLE Report

# Investment, Power and Protein in sub-Saharan Africa

A TABLE Report in Summary



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TABLE



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## Cover

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TABLE is a collaboration between the University of Oxford, the Swedish University of Agricultural Sciences (SLU) and Wageningen University and Research (WUR)

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## Introduction

The place of protein in sub-Saharan Africa's food system is changing rapidly, raising complex international development, global health and environmental sustainability issues. Despite substantial growth in the region's livestock agriculture sector, protein consumption per capita remains low, and high levels of undernourishment persist. Meanwhile sub-Saharan Africa's population is growing and urbanising rapidly, creating expectations that demand for protein will increase rapidly over the coming decades and triggering calls for further investment in the expansion and intensification of the region's meat and dairy sector. However, growing disquiet over the environmental impacts of further expansion in livestock numbers, and growing sales of alternative protein products in the Global North, has raised questions about the future place of plant-based, insect and lab-grown proteins in African diets and food systems.

This report examines financial investment in protein production in sub-Saharan Africa. It begins from the position that investors play an important role in shaping the development of diets and food systems because they are able to mobilise the financial resources required to develop new protein products, infrastructures and value chains, or to prevent their development by withholding investment. It therefore investigates which actors are financing the production in sub-Saharan Africa of: a) animal proteins such as meat, fish, eggs and dairy products; b) 'protein crops' such as beans, pulses and legumes; and c) processed 'alternative proteins' derived from plants, insects, microbes or animal cells grown in a tissue culture. Through analysing investment by state, philanthropic and private sector organisations – as well as multilateral financial institutions such as development banks – it aims to establish which protein sources and stages of the value chain are financed by different groups of investors and to explore the values and goals which shape their investment decisions. To this end, the report examines four questions:

1. Who is currently investing in protein production in sub-Saharan Africa?
2. What goals do these investors aim to achieve (or what sort of future do they seek to bring about) through making these investments?

3. Which protein sources and protein production systems do they finance?
4. What theory of change links their investment strategy to these goals?

In addressing these questions, this report explores what sorts of protein production and provisioning systems different investor groups might be helping to bring into being in sub-Saharan Africa. It also considers what alternative possibilities might be marginalised due to a lack of investment. It thus seeks to understand whose priorities, preferences and visions for the future of food might be informing the changing place of protein in the region's diets, economies and food systems. In so doing, it supports TABLE's work theme on "Power in the food system: what's powering the future of protein?" (<https://tabledebates.org/power>), which explores debates about power in the food system through the case of protein.

## Background

Production of whole milk, beef, sheep meat and eggs across sub-Saharan Africa has roughly doubled since 1990, while chicken and pork production has roughly trebled. However, the region's population has also grown rapidly and as a result this increase in animal protein production has not led to a significant change in average per capita protein consumption. Daily per capita consumption of protein, and particularly animal protein, remains low by global standards across most of sub-Saharan Africa and many countries within the region experience high rates of food insecurity and undernourishment.

A substantial body of nutritional and public health scholarship suggests that increasing consumption of protein (and specifically of animal products) is correlated positively with GDP growth and urbanisation. Such research often employs a classificatory mode which identifies four different dietary patterns, through which populations move sequentially: 1) hunter-gatherer provisioning; 2) labour-intensive, low-yielding agriculture punctuated by periods of famine; 3) receding famine as agriculture becomes more industrialised and incomes increase; and 4) the adoption of diets high in calories, sugar, animal fat and processed foods. Conventionally, this 'nutritional transition model'

classifies countries of the Global North as occupying stage 4, while different countries and populations of the Global South are depicted as occupying differing positions in a trajectory of transition from stage 3 towards stage 4.

Continued population growth, increases in GDP per capita and rapid urbanisation are therefore widely expected to drive a far-reaching 'nutritional transition' across sub-Saharan Africa over the coming decades as the region moves from the third dietary pattern towards the fourth. As part of this transition, per capita consumption of protein (and specifically animal protein) within the region is expected to grow faster than protein production. This has led to concern in some quarters that protein production per capita may decrease over time, and dependence on imported proteins may therefore increase, limiting nutritional gains across much of sub-Saharan Africa unless domestic protein production expands significantly.

However, in recent years increasing awareness of the environmental impacts of livestock production has raised questions about the sustainability of the ongoing expansion of animal protein production and consumption across the Global South. Simultaneously, some scholars have suggested that certain countries may be entering a 'fifth stage' of the nutritional transition during which per capita consumption of animal protein will decline from its current high levels and the share of dietary protein supplied by plant-based (and other) alternatives will increase. At present, arguments that such a new nutritional transition may be occurring rely heavily on evidence that sales of alternative proteins have grown in the Global North and that concomitant modest decreases in the quantity of animal products consumed per capita have occurred in countries such as the United Kingdom. However, such developments raise questions about whether, as established nutritional transition models predict, sub-Saharan Africa will continue to experience rising rates of animal product consumption as GDP per capita increases or whether this will be superseded by a transition towards plant and alternative proteins.

This report argues that in order to understand the changing place of protein in sub-Saharan African diets and food systems, it is important to investigate what motivates different financial actors to invest in

new food products, markets and value chains – or to withhold investment from them. To this end, it examines what role investors' expectations about the future of protein in sub-Saharan Africa play in mobilising investment in some places, protein sources and value chains – and in deterring investment in others. It thus examines what role the power to produce authoritative visions for the future of food, and to convince investors to act upon them, might play in transforming the organisation of protein production, provisioning and consumption within the region.

## Methodology

The research on which this report is based was conducted in two phases. First, the author undertook a rapid review of publicly available reports and statistics to establish which groups of investors provide the largest quantities of agricultural investment to sub-Saharan Africa and explore (where possible) what proportion of it is devoted to protein production.

In phase 2 the author carried out nineteen expert interviews with key investors in protein production within the region, and with other individuals possessing a detailed understanding of these investors' aims and financial decision-making processes. These interviews provided insight into the goals and values which motivated different investors to finance protein production in sub-Saharan Africa, the ways in which these aspirations shaped their decisions to invest in specific protein products or value chains, and the expectations and theories of change which informed these investment decisions.

## Investment Landscape

Sub-Saharan Africa attracts only a small share of global investment in agriculture and food production. Agricultural credit provided by the banking sector and government spending are the main sources of agricultural investment at the global scale. However, in 2019 sub-Saharan Africa accounted for only 4% of global government spending on the Agriculture, Forestry and Fishing sector and 1% of global agricultural credit. By contrast, Sub-Saharan

Africa receives 35% of global Overseas Development Assistance (ODA) spending on the Agriculture, Forestry and Fishing sector.

As a result, private sector financial institutions such as commercial banks appear to play a smaller role in sub-Saharan Africa's agricultural finance landscape than in those of most other regions, while ODA spending is a more prominent source of agricultural investment than in other regions. However, ODA spending accounts for only a small proportion of total global agricultural investment. As a result, the Agriculture, Food and Fisheries sector appears to receive far less investment overall in sub-Saharan Africa than in most other regions.

Little data relating to investment in protein production in sub-Saharan Africa is publicly available and it is not possible to estimate reliably what proportion of total agricultural investment into the region is devoted specifically to protein production. However, the percentage of agricultural development funding allocated explicitly to the livestock and fisheries sectors has grown from 6.5% in 2011 to 14.8% in 2020, suggesting that ODA funders may have begun to place greater importance on the livestock and fisheries sectors in recent years.

## Investor Visions

All investors interviewed during this project expected population growth in sub-Saharan Africa, coupled with economic growth and urbanisation, to produce a significant increase both in total protein consumption and in average protein consumption per person across the region over the coming decades. This perception that sub-Saharan Africa would 'demand' or 'need' considerably more protein in the future underpinned all such interviewees' decisions to invest in protein production within the region.

Different groups of investors were nevertheless motivated by contrasting values and objectives, which led them to varying conclusions about how and by whom this perceived future demand for protein should be satisfied. This produced three distinct 'investor visions' for the future of protein in sub-Saharan Africa. This report outlines these investor visions and establishes which forms of protein production their adherents are motivated to

finance. Due to the scarcity of publicly available data on investment in protein production in the region, it does not attempt to quantify the size of the financial flows which each vision mobilises or to evaluate how successful the investors involved in each network have been in achieving their goals.

## Vision 1: Smallholder Intensification

The first vision, Smallholder Intensification, is held by Development Finance Institutions (DFIs), philanthropic organisations and impact investors whose investments are intended to reduce poverty, combat malnutrition and facilitate sustainable development. These investors viewed investment in livestock production as a means of increasing the household incomes, food security and economic resilience of smallholder farmers and pastoralists, and of thus achieving development goals ranging from poverty alleviation to gender equality. While some of these organisations had financed beef production in the past, their investments now focus on poultry, egg, dairy and aquaculture value chains due to concerns that beef's high carbon intensity might conflict with their sustainable development objectives.

These organisations typically invest in initiatives designed to increase the productivity of smallholder farmers and pastoralists (in order to increase protein production without requiring a commensurate increase in livestock numbers and associated environmental impact) and/or to connect them with buyers willing to pay higher prices for their produce. As a result, they typically invest in suppliers of feed, medicines and day-old chicks to small-scale poultry and egg producers, dairy producer cooperatives and dairy processors. Because they seek to finance projects which will benefit poor and marginalised producers, they often invest in locations which purely commercial investors might consider excessively risky including much of Eastern and Southern Africa, as well as larger West African markets such as Nigeria and Ghana.

These investors attempt to create a distinctive protein value chain structure in which relatively large input suppliers and processors provide agricultural

inputs to small livestock producers and/or purchase, aggregate and process their produce for sale to retailers and restaurant chains. The prominence of philanthropic and DFI funding in sub-Saharan Africa's agricultural investment landscape suggests that this may be the most widely held investor vision.

## Vision 2: Protein for Profit

A second vision, Protein for Profit, is held primarily by private equity funds and commercial banks which aim simply to produce a competitive financial return on their clients' investments. These investors are motivated by an expectation that markets for animal products in sub-Saharan Africa (and the profitability of animal protein producers) will grow rapidly over time.

However, investors adhering to this vision are deterred from investing directly in livestock production in most sub-Saharan African countries by financial risks including political instability, volatile animal feed costs and competition from imported animal products. As a result, they are willing to consider only the least risky investments. They therefore invest primarily in poultry and egg value chains because chickens have relatively short life cycles, meaning that such businesses are less exposed to political and economic shocks during the animal production cycle than are other forms of animal protein production.

These investors have financed intensive, vertically integrated poultry and egg farms in a few of the region's most economically developed and politically stable countries. Elsewhere in East and Southern Africa, they increasingly finance agricultural input suppliers serving smallholder poultry farmers because these businesses can be expanded to create vertically integrated poultry or egg production companies if opportunities arise to supply these products to commercial customers such as restaurants and retailers.

As a result, they sometimes purchase agricultural input supply companies established by investors adhering to the Smallholder Intensification vision. The Protein for Profit and Smallholder Intensification visions therefore often appeared to merge to some extent in certain locations. However, in most sub-

Saharan African countries commercial investors motivated by the Protein for Profit vision remain marginal actors in protein value chains.

## Vision 3: Protein Diversification

A third vision, Protein Diversification, was held by a distinct group of venture capital investors. These venture capitalists were motivated less by expectations of future financial returns than by concerns over the environmental and ethical desirability of expanding sub-Saharan Africa's livestock sector in order to satisfy expected future growth in demand for protein. They sought instead to address this demand through financing manufacturers of alternative protein products such as plant-based meats and milks. Investments associated with this vision were concentrated in South Africa, where over half of all African alternative protein producers are located.

Such investors hoped that if alternative protein products could be produced at a cost similar to that of animal products then they would become a mainstream part of diets across sub-Saharan Africa. However, this group of venture capital funds was quite small, with only limited capital to invest, and African alternative protein producers appeared to have little access to other investment sources. Their expansion was therefore constrained and alternative protein production in sub-Saharan Africa currently appears to operate on only a small scale.

This report found no evidence of comparable investor networks focused on the production of insect proteins or protein-rich crops such as beans, lentils and pulses (except where funders of smallholder intensification invested in producing and processing soy for use in animal feed). This suggests that investment in protein production in sub-Saharan Africa is overwhelmingly focused on the production of animal protein (complemented by some small-scale investment in meat and dairy alternatives).

## National Subsidies and Global Markets

This report focuses exclusively on investment in protein production within sub-Saharan Africa itself. However, protein producers elsewhere in the world often receive far larger volumes of finance than their sub-Saharan African counterparts and agricultural investment outside the region also shapes sub-Saharan Africa's food system in important ways.

Notably, interviewees often highlighted the role of government subsidies to meat, milk and animal feed producers in other parts of the world in shaping global trade in meat and dairy products. For instance, in 2020 OECD Member States provided \$50.1bn in Producer Single Commodity Transfers (SCTs) to meat and dairy producers. Meanwhile, Chinese meat and dairy producers received \$45.2bn in producer SCTs during 2020. Both of these figures far exceed the total investment in sub-Saharan Africa's entire Agriculture, Forests and Fisheries sector of \$22.0bn recorded by the UN Food and Agriculture Organisation (FAO) in 2019.

Several interviewees suggested that these subsidies enabled animal products produced in Europe, North America, and in middle-income countries including Brazil and China, to be imported into sub-Saharan African markets at prices below their cost of production. They claimed that many local producers were unable to match the low prices at which imported products could be offered, enabling producers elsewhere in the world to outcompete sub-Saharan African farmers and pastoralists.

Certain interviewees argued that this was deterring private sector investment into livestock agriculture within the region. By their account, financial institutions such as commercial banks and private equity funds are reluctant to finance meat or dairy producers who face competition from imported animal products because they are concerned that such firms will be unable to produce a profit for their investors. Such dynamics illustrate the importance of situating investment in protein production within sub-Saharan Africa within broader global political economies of finance.

## Limitations and Future Research Opportunities

The research presented in this report is subject to several important limitations. First, a lack of publicly available data on investment in protein production in sub-Saharan Africa meant that it was not possible to quantify the size of the financial flows mobilised by each investor vision or to evaluate how successful each investor network has been in achieving its goals. Second, the three investor visions that it identifies were derived from a small sample of expert interviewees. As such its analysis struggles to capture the ways in which these differing investor goals and agendas are interpreted and implemented across different sub-Saharan African countries. Finally, the report's focus on investment in protein in sub-Saharan Africa means that it does not investigate whether these investor visions are also salient in other regions of the Global South.

This suggests a need for three strands of further research. First, researchers might undertake more detailed analysis of proprietary data on bank lending and private equity investment in agriculture in sub-Saharan Africa – and of the databases of individual DFIs and philanthropic foundations – in order to establish how much capital is mobilised by each of the report's three visions. Through examining the outcomes of key projects and companies funded by different investor networks, such research might evaluate the extent to which their visions have been realised in practice. Second, researchers might undertake more detailed case studies of the development of individual sub-Saharan African countries' animal protein sectors to explore the role of national (and subnational) policy frameworks in mediating the practical implementation of different investor visions. Finally, future research might expand the scope of this Africa-focused project to examine investment in protein production in other regions of the Global South.

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