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Soy in Africa

A Perpetual Promise since the Late Nineteenth Century

Abstract: This article traces the changing place of soybeans in Africa from the late nineteenth century to the present, arguing that the continent's modest material uptake contrasts with a remarkably persistent 'soy promise.' Using a discourse-historical approach and a food regime framework, African trajectories are situated within wider transformations of the global agri-food system. In the Colonial Experimental Regime (1880s–1930s), soy was cast as a crop of scientific modernity, yet it remained largely confined to trials and station fodder. In the Cold War Developmentalist Regime (1950s–1970s), it re-emerged as a nutritional technology and aid commodity within U.S.-led architectures of food aid and market development. In the Corporate-Neoliberal Regime (1990s–present), soy is reframed as a flexible frontier commodity embedded in liberalised value chains and feed complexes, with post-2010 output growth concentrated in a few countries. The article argues that the durability of the 'soy promise' reflects the interplay of imaginaries, institutions, and uneven material outcomes; it also considers whether regional markets, continental trade initiatives, and climate pressures might shift soy's role beyond its predominantly feed-centred footprint.

Zusammenfassung: Der Artikel zeichnet die Veränderungen in der Bedeutung der Sojabohne in Afrika vom späten 19. Jahrhundert bis heute nach und argumentiert, dass die bescheidene materielle Verbreitung auf dem Kontinent im Kontrast zu einem bemerkenswert hartnäckigen ‚Soja-Versprechen' steht. Mittels eines diskurshistorischen Ansatzes und einer Nahrungsregime-Rahmung werden die Entwicklungen in Afrika in den Kontext umfassenderer Veränderungen des globalen Agrar- und Ernährungssystems eingeordnet. Im kolonial-experimentellen Regime (1880er–1930er Jahre) wurde Soja als Kulturpflanze der wissenschaftlichen Moderne konzipiert, blieb jedoch weitgehend auf Versuchsanbau und Viehfutter beschränkt. Im entwicklungspolitischen Regime des Kalten Krieges (1950er–1970er Jahre) trat Soja als Technologie zur Verbesserung der Ernährungssituation und als Hilfsgut im Rahmen der von den USA angeführten Nahrungsmittelhilfe und Marktentwicklung wieder auf; die Verwendung von verarbeitetem Soja stand stärker im Fokus als die Ausweitung des Anbaus. Im kapitalgesellschaftlich-neoliberalen Regime seit den 1990er Jahren wird Soja als flexible Pionierware umgedeutet, eingebettet in liberalisierte Wertschöpfungsketten und Futtermittelkomplexe, wobei sich das Produktionswachstum seit 2010 auf wenige Länder konzentriert. Der Artikel argumentiert, dass die Beständigkeit des ‚Soja-Versprechens' das Zusammenspiel von Projektionen, Institutionen und wechselnden Produktionsergebnissen widerspiegelt. Er untersucht zudem, inwieweit regionale Märkte, kontinentale Handelsinitiativen und der Druck des Klimawandels die Rolle

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der Sojabohne über ihren vorwiegend auf Futtermittel ausgerichteten Fußabdruck hinaus verschieben können.

Keywords: Africa, food regimes, agrarian political economy, agricultural imaginaries

Introduction

"With its vast arable land, Africa has the potential to develop a strong soybean industry to increase food security, create employment opportunities, and position itself as a key exporter to China."[1] Although this statement was published only last year, such claims are far from new. In fact, as early as the late nineteenth century, soybeans were framed as a legume of exceptional promise for Africa. In 1898, French botanist Louis Trabut wrote of soy's potential in Algeria:

> "Very remarkable for its richness in nitrogenous materials and fat, it can be very useful in the feeding of animals, for fattening and for the production of dairy milk. Its role in the human diet is less evident, however the indigenous people might find a precious resource in this legume."[2]

Comparable assessments circulated widely across colonial Africa. In 1908, E. R. Sawer of South Africa's Cedara Agricultural Station described soy as "the richest of all grains in albuminoids," arguing that "even a crop of half the standard yield is well worth growing. […] As grain, hay, or ensilage, it is well adapted for admixture with maize to counteract the deficiencies of the latter crop."[3] Such arguments have proven remarkably durable, with contemporary policy actors and agribusiness consultants continuing to reiterate many of the same claims. As Brivery Siamabele concluded in 2021:

> "[I]ncorporating soybeans as a major cash crop and animal-feed protein in African production systems is cost-effective and can address the dual challenges of malnutrition and climate change resilience that small-scale farmers are faced with. The paper also argues that Africa needs soybeans production more now than ever before because the continent at large has the potential to be a world leader in the production of soybeans as well as other key grain legumes."[4]

1 Vincent Ninkuu/Tianfu Han/Felix D. Dakora, Development of the Soybean Industry in Africa: Safeguarding Food Security in Africa and China. A Perspective, in: Engineering 49/6 (2025), 272–278.

2 Louis Trabut, Le soja, in: Informations Agricoles, Service Botanique, Algérie, Bulletin 16/7 (1898), n.pag.

3 E. R. Sawer, The Place of Legumes in Our Agricultural System, in: Natal Agricultural Journal 11/6 (1908), 685–692, 688–690, https://hdl.handle.net/10520/AJA0000009_1349.

4 Brivery Siamabele, The Significance of Soybean Production in the Face of Changing Climates in Africa, in: Cogent Food & Agriculture 7/1933745 (2021), 1–16, 12.

Investor discourse echoes this optimism. In June 2024, the online business magazine *Capmad* predicted annual growth rates of over 20 per cent for Africa's soybean agri-food sector in the coming years.[5]

For more than a century, actors ranging from colonial officials to contemporary agribusiness consultants have imagined Africa as a 'latent soybean frontier,' consistently projecting a transformative future. Yet its materialisation has remained elusive: Africa accounted for only roughly 1.5 per cent of global soybean output in 2024,[6] a modest increase from 0.27 per cent in 1961[7] and well below its demographic share (c. 19 per cent)[8] and estimated share of global arable land (c. 20.3 per cent).[9] This persistent gap between projection and production – the paradox of a crop long promoted but never fully realised – lies at the heart of this article.

Rather than explaining soy's limited expansion primarily through agronomic or economic constraints, it focuses on how the future of soy has been imagined, narrated, and mobilised across different historical contexts. Why has the narrative of untapped potential endured despite modest production outcomes? What broader visions of development, modernisation, and geopolitical positioning does the soybean come to embody?

This article scrutinises how soybeans in Africa have been represented in policy, scientific, and development-oriented texts since the late nineteenth century, tracing continuities and shifts in how both the crop and the continent have been positioned within global agri-food debates. These imaginaries vary across colonial territories, postcolonial states, and agro-ecological zones. Accordingly, Africa is not treated as a homogeneous space but rather as a historically fragmented terrain of imperial, postcolonial, and corporate interventions.

The article follows a longue durée structure organised around three periods used as heuristic, relational frameworks rather than rigid, self-contained blocks. First, the Colonial Experimental Regime (1880s–1930s) situates soy as a crop of projection in the context of imperial science and commodity frontiers. Second, the Cold War Developmentalist Regime (1950s–1970s) examines soy as a nutritional and feed technology within U.S.-led food aid and market-building architectures. Third, the Corporate-Neoliberal Regime (1990s–present) traces the repositioning of soy within liberalised value chains, investment frontiers, and shifting geopolitical partnerships. Across all three periods, soy is treated not only as a botanical object but as a vehicle of projection through which changing technocratic and geopolitical visions of African development were articulated. A final comparative section relates the third

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5 Capmad, Africa's Soybean Sector Takes the International Market by Storm, in: Capmad (21 June 2024), https://www.capmad.com/post/africas-soybean-sector-takes-the-international-market-by-storm (13 January 2026).

6 Total global production of soybeans (2024/2025) was 427.15 million metric tons. U.S. Department of Agriculture/Foreign Agricultural Service, Production Data for Soybeans (2024/2025), https://www.fas.usda.gov/data/production/commodity/2222000 (14 January 2026).

7 FAOSTAT, Crops and Livestock Products, Production Quantity (Soya beans), Africa (Total) and World (Total), 1961–2024, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/ (14 January 2026).

8 Africa's estimated total population was 1,568,885,679, as of 13 January 2026 at 08:33 PM (CET; UTC+01:00). Worldometer, Africa Population, https://www.worldometers.info/world-population/africa-population/ (13 January 2026).

9 Africa's total land area is approximately 11,724,000 square miles (30,365,000 square km), and the continent measures roughly 5,000 miles (8,000 km) from north to south and 4,600 miles (7,400 km) from east to west. Africa, in: Encyclopaedia Britannica online, https://www.britannica.com/place/Africa (13 January 2026).

regime back to the first two, identifying continuities and divergences in projection, power, and material outcomes.

Soy in global history and Africa's marginal position

The historical literature on soybeans has focused predominantly on East Asia,[10] the U.S. Midwest,[11] and South America.[12] An expanding body of scholarship situates these histories within global perspectives, tracing soy's entanglement with agri-food globalisation, capitalist transformation, and successive food regimes.[13] To date, however, this global historiography has rarely incorporated Africa as a site of historical production, experimentation or developmental projection, even though soy has figured prominently in agricultural interventions on the continent since the late nineteenth century.

Research explicitly addressing soy's history in Africa is limited, though scattered studies examine specific regions or national contexts at specific periods.[14] For longer historical perspectives, the most extensive – yet largely unanalysed – body of material is found in the archive of the SoyInfo Center, which offers a rich source for encyclopaedic documentation. Alongside this, a growing body of contemporary literature frames soy as a "Cinderella crop" capable of addressing food insecurity, economic diversification, and agricultural modernisation, often emphasising Africa's presumed abundance of uncultivated arable land.[15]

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10 Midori Hiraga, A Business History of Soy: Japan's Modernization and the Rise of Soy as a Global Commodity, New York 2024; Brian Lander/Thomas David DuBois, A History of Soy in China: From Weedy Bean to Global Commodity, in: Claiton Marcio da Silva/Claudio de Majo (eds.), The Age of the Soybean: An Environmental History of Soy During the Great Acceleration, Winwick 2022, 46–65.

11 Matthew Roth, Magic Bean: The Rise of Soy in America, Lawrence 2018.

12 Matilda Baraibar Norberg, The Political Economy of Agrarian Change in Latin America: Argentina, Paraguay, and Uruguay, Cham 2020; Matilda Baraibar Norberg, Sojización as a New First Movement: A Polanyian Analysis of the South American Soybean "Boom", in: da Silva/de Majo, The Age of the Soybean, 91–114; Mariano Turzi, The Political Economy of Agricultural Booms: Managing Soybean Production in Argentina, Brazil, and Paragua*y*, Cham 2017; Pablo Lapegna, Soybeans and Power: Genetically Modified Crops, Environmental Politics, and Social Movements in Argentina, Oxford 2016.

13 Baraibar Norberg, The Political Economy; Matilda Baraibar Norberg/Lisa Deutsch, The Soybean Through World History: Lessons for Sustainable Agrofood Systems, New York/London 2023; da Silva/de Majo, The Age of the Soybean; Christine M. Du Bois/Chee-Beng Tan/Sidney Mintz (eds.), The World of Soy, Urbana/Chicago 2008; Theodore Hymowitz, The History of the Soybean, in: Lawrence A. Johnson/Pamela J. White/Richard Galloway (eds.), Soybeans: Chemistry, Production, Processing, and Utilization, Urbana 2008, 1–31; Ernst Langthaler, The Soy Paradox: The Western Nutrition Transition Revisited, 1950–2010, in: Global Environment 11/1 (2018), 79–104; Ines Prodöhl, Globalizing the Soybean: Fat, Feed and Sometimes Food, c. 1900–1950, London 2023.

14 Dalia Mohamedkheir Khojely et al., History, Current Status, and Prospects of Soybean Production and Research in Sub-Saharan Africa, in: The Crop Journal 6/3 (2018), 226–235; Sudarshna Kumari et al., Introduction, History, Geographical Distribution, Importance, and Uses of Soybean (Glycine max L.), in: Krishna Pratap Singh/N. K. Singh/Aravind Thangavel (eds.), Soybean Production Technology: Physiology, Production and Processing, Singapore 2025, 1–17; Brian Diers/Andrew Scaboo, Soybean Breeding in Africa, in: African Journal of Food, Agriculture, Nutrition and Development 19/5 (2019), 15121–15125; Abuli S. Jackson, A Brief History of Soybean Production in Kenya, in: Research Journal of Agricultural and Environmental Management 5 (2016), 58–64.

15 Christine H. Foyer et al., Modelling Predicts that Soybean Is Poised to Dominate Crop Production across Africa, in: Plant, Cell & Environment 42/1 (2019), 373–385; Muhyidiyn Islam et al., Soybean and Sustainable

Reports and development documents from the Food and Agriculture Organization (FAO) and other international organisations further illuminate how soy has been positioned within agricultural policy and aid strategies, especially during the post-independence period and the Green Revolution. Much of this literature remains descriptive and technical, paying limited attention to the historical continuity and transformation of the 'soy promise.' This article seeks to fill that gap – it foregrounds the continent as a recurring site of projection, experimentation, and developmental imagination within global soybean histories.

Sources, methods, and a discourse-historical approach

The core empirical foundation of the study comes from the SoyInfo Center, a digital archive curated by William Shurtleff and Akiko Aoyagi since the late 1970s. Created to document the global diffusion of soy foods and soybean technologies, the archive now contains more than 94,000 digitised documents covering soybean cultivation, processing, consumption, and promotion worldwide. Particularly useful here are the regionally focused Africa sourcebooks, which compile material from the late nineteenth century to the present and bring together otherwise scattered references to soybeans in colonial agricultural trials, missionary nutrition programmes, postwar development planning, and contemporary sustainability debates.[16]

While uniquely rich, the SoyInfo Center archive poses methodological challenges. The chronologically compiled PDF volumes have uneven metadata and limited thematic indexing; also, the collection largely reflects the viewpoints of actors promoting soy, including scientists, missionaries, development agencies, industry associations, and state institutions. The perspectives of African farmers, labourers, and consumers typically appear only indirectly, and critical or failure-oriented accounts are less consistently represented. To triangulate, I draw on additional digitised repositories: CGIAR/IITA collections, the UK National Archives' Discovery platform, USDA FAS, *Soybean Digest*, FAO repositories, and Sabinet/AJA for historical African journals.[17] These sources broaden regional coverage and allow cross-checks on yields, adoption, and policy rationales. At the same time, they share a predominantly development- and state-centred vantage point, reinforcing the need for a critical reading of the source base as a whole.

Agriculture for Food Security, in: Takuji Ohyama et al. (eds.), Soybean – Recent Advances in Research and Applications, London 2022, 1–16, DOI: 10.5772/intechopen.104129; Michael Morris et al., Awakening Africa's Sleeping Giant: Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond, Washington, D.C.: World Bank 2009, http://documents.worldbank.org/curated/en/312591468004457911 (13 January 2026); T. R. Sinclair et al., Soybean Production Potential in Africa, in: Global Food Security 3 (2014), 31–40.

16 William Shurtleff/Akiko Aoyagi, History of Soybeans and Soyfoods in Africa (1857–2019): Extensively Annotated Bibliography and Sourcebook, Lafayette 2019.

17 CGIAR Central Library, https://cgspace.cgiar.org/ (10 January 2026); International Institute of Tropical Agriculture (IITA), Knowledge Center, https://www.iita.org/knowledge/knowledge-center/ (10 January 2026); UK National Archives, Discovery Catalogue (search: soya, 1870–1960), https://discovery.nationalarchives.gov.uk (10 January 2026); FAO Knowledge Repository, https://openknowledge.fao.org/home (10 January 2026); U.S. National Archives, Catalog (search: soybean Africa), https://catalog.archives.gov/search?page=1&q=soybean%20Africa (10 January 2026); Soybean Digest (Archive), Internet Archive collection, https://archive.org/ (10 January 2026); Sabinet African Journals, together with the African Journal Archive (AJA), https://www.ajarchive.org/ (7 February 2026).

As is often the case in historical agrarian research, quantitative data prior to around 1960 are sparse, inconsistent, and often methodologically opaque. Production figures, acreage estimates, and adoption rates vary widely across sources and are frequently embedded in advocacy-driven reports rather than standardised statistical systems.[18] Accordingly, this study does not seek econometric precision but instead prioritises qualitative, interpretive, and contextual analysis.

Building on these sources, the article traces both the material trajectories of soybean production, consumption, and trade as well as the shifting meanings, institutional pathways, and contested outcomes of soybean promotion in Africa over the past 150 years. To examine the persistent gap between discursive promise and material realisation, it adopts a discourse-historical approach, analysing how soybeans have been framed across periods, places, and actors. Imaginaries are understood here as historically situated, collectively produced visions of desirable futures that organise knowledge, justify intervention, and orient political and economic action. Unlike isolated ideas or rhetorical claims, imaginaries link scientific expertise, policy rationales, and material expectations, shaping how agricultural futures are anticipated even when past interventions have repeatedly fallen short.

Agrarian political economy and food regimes

To situate these narratives materially, the analysis draws on African agrarian history and agrarian political economy. Scholarship in this field shows how African agriculture has been shaped by incorporation into the global capitalist economy, from colonial land regimes and post-independence development strategies to neoliberal restructuring and the contemporary climate crisis.[19] From this perspective, agrarian change is analysed through processes of commodification, differentiation, and dispossession, foregrounding the contradictions and class dynamics of rural transformation.[20] This literature encourages us to read soybean initiatives (colonial, postcolonial, and contemporary) not as isolated technical projects but as moments within longer struggles over land, labour, and development authority. It also underscores the value of longue durée perspectives for understanding how external interventions intersect with state-building as well as with broader patterns of agrarian transformation.

To connect these trajectories to the political economy of global agriculture, the article draws on food regime theory. Food regimes conceptualise food systems as historically specific configurations of power, production, and consumption that underpin successive phases of

18 Giovanni Federico, Feeding the World: An Economic History of Agriculture, 1800–2000, Princeton 2010; Kent Deng/Patrick O'Brien, Establishing Statistical Foundations of a Chronology for the Great Divergence: A Survey and Critique of the Primary Sources for the Construction of Relative Wage Levels for Ming-Qing China, in: The Economic History Review 69/4 (2016), 1057–1082.

19 Henry Bernstein, Considering Africa's Agrarian Questions, in: Historical Materialism 12/4 (2004), 115–144, DOI: 10.1163/1569206043505158; Henry Bernstein, Agrarian Questions Then and Now, in: The Journal of Peasant Studies 24/1–2 (1996), 22–59; Archibald Mafeje, The Agrarian Question, Access to Land, and Peasant Responses in Sub-Saharan Africa, UNRISD Programme Paper 6, Geneva 2003; Amanda Hammar (ed.), Displacement Economies in Africa: Paradoxes of Crisis and Creativity, London/New York 2014; James C. McCann, Agriculture and African History, in: The Journal of African History 32/3 (1991), 507–513.

20 Bernstein, Considering, 115–117.

capitalist development.[21] Each regime reflects a particular configuration of geopolitical, institutional, and economic relations coordinating the roles of states, firms, and farmers; it persists until internal contradictions and external shocks precipitate its destabilisation and reconfiguration.[22] Following McMichael, three major food regimes are commonly distinguished:[23]

- *First food regime (1870s–1930s):* British-led; centred on imperial trade, European industrialisation, and colonial provisioning; unravelled with interwar crisis and depression.
- *Second food regime (1950s–1970s):* U.S.-led; state-centred and embedded in Cold War geopolitics; structured by surplus grain production, food aid (e.g., PL 480), and the rise of industrial feed markets. During this regime, soy became a major U.S. surplus crop.
- *Third food regime (1990s–present):* Corporate-neoliberal; characterised by transnational agri-food value chains, financialisation, proprietary technologies, and increasingly 'meatified' diets. Soy expanded dramatically during this regime, with South America challenging U.S. dominance.[24]

In this article, I align Africa's soy history with these global regimes while adapting the respective labels to the continent's empirical trajectories:

- *Colonial Experimental Regime (1880s–1930s): Soy as a promise and projection,* when experimentation became systematic across Africa and agronomists expressed high expectations for the crop amidst the Scramble for Africa.
- *Cold War Developmentalist Regime (1950s–1970s): Soy as a nutritional technology and aid commodity* in the context of Africa's long decolonisation moment, during which most nations gained independence and began refashioning agricultural institutions. Many soybean experiments unfolded at the interface between late colonial governance and early postcolonial state-building, shaped by Cold War agricultural aid, technical assistance, and U.S.-led food diplomacy.
- *Corporate-Neoliberal Regime (1990s–present): Soy as a flexible frontier commodity,* when soybean production finally expanded, though more slowly than anticipated and outpaced by consumption.

Throughout the text, I provincialise these regimes by foregrounding Africa's recurrent position as a 'latent soy frontier,' with anticipatory narratives often outpacing material incorporation. The periodisation aligns with the African regional context and soy's specific empirical history while remaining consistent with global regime dynamics. Across all three periods, soy is examined not only as a crop but as a vehicle of projection through which shifting technocratic and geopolitical visions of African development were articulated. Food regimes are treated as heuristic and relational frameworks rather than rigid, self-contained blocks.

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21 Philip McMichael, A Food Regime Genealogy, in: Saturnio Borras Jr. (ed.), Critical Perspectives in Rural Development Studies, London/New York 2013, 129–158; Philip McMichael, Food Regimes, in: A. Haroon Akram-Lodhi et al. (eds.), Handbook of Critical Agrarian Studies, Cheltenham/Northampton 2021, 218–231; Jostein Jakobsen, New Food Regime Geographies: Scale, State, Labor, in: World Development 145 (2021), 105523, DOI: 10.1016/j.worlddev.2021.105523.

22 Gerardo Otero, Review of Philip McMichael's *Food Regimes and Agrarian Questions*, in: Journal of World-Systems Research 22/1 (2016), 299–305; Philip McMichael, Critical Agrarian Studies and Crises of the World-Historical Present, in: The Journal of Peasant Studies 50/2 (2023), 725–757.

23 McMichael, A Food Regime Genealogy, 131–132.

24 Baraibar Norberg/Deutsch, Soybean, 166–168.

Colonial Experimental Regime (1880s–1930s): Soy as a promise and projection

Soy reached Europe in the late eighteenth century. By the late nineteenth century, botanists and agronomists in France, Germany, Britain, and Switzerland promoted it as a 'crop of the future.' Seeds circulated through scientific societies; hundreds of trials were established in Europe and selected colonies, and their results appeared in an expanding botanical and agronomic press. Yet yields were often disappointing, and farmer uptake in Europe remained limited.[25]

African references (Egypt 1857; Algeria 1863; Tunisia 1873) remain isolated until the 1880s, when experimentation became systematic amidst the Scramble for Africa.[26] Between 1876 and 1900, European powers extended formal colonial rule from roughly 10 to 90 per cent of the continent, a shift codified at the Berlin Conference of 1884–1885.[27] Imperial rivalry, techno-scientific optimism, and rising industrial demand for oils and protein converged.[28] The second industrial revolution intensified the search for vegetable oils and protein-rich feedstuffs, stimulating oilseed trials across colonial territories. Soy entered this milieu as an experimental commodity championed by scientists, administrators, missionaries, and commercial actors.[29]

Agronomic trials, production, and the making of a colonial soy network

Auguste Paillieux's *Le Soya* (1880) synthesised two decades of reports from the *Bulletin de la Société d'Acclimatation*. It summarised 27 trials in France, Switzerland, and Algeria and promoted soy for both metropolitan and colonial agriculture, suggesting it could "grow reasonably well" under semi-arid conditions.[30] Medical interest accompanied agronomic trials: In 1888, Dr M. Egasse reported that diabetic patients at Algiers' Dey Hospital who received soybean porridge showed a "considerable decrease in sugar in their urine" and improved wound healing.[31] This was an early sign of soy's multivalent promise across agronomy and

25 Baraibar Norberg/Deutsch, Soybean, 131.

26 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 15–30.

27 It came to symbolise the beginning of the Scramble for Africa, the final large-scale territorial partition in world history. See Carlos Ramirez Faria, The Historical Dictionary of World Political Geography: An Encyclopaedic Guide to the History of Nations, Basingstoke/New York 2001; M. E. Chamberlain, The Scramble for Africa, 3rd ed., Abingdon 2013; Ellen Hillbom/Erik Green, Afrika: En kontinents ekonomiska och sociala historia, Stockholm 2010, 107; Henry Bernstein, Class Dynamics of Agrarian Change, Halifax/Winnipeg 2010, 41.

28 Chamberlain, The Scramble for Africa, 38.

29 Jean Suret Canale, French Colonialism in Tropical Africa 1900–1945, London 1971; K. E. Giller/K. E. Dashiell, Glycine max (L.) Merr., in: M. Brink/G. Belay (eds.), Plant Resources of Tropical Africa 1. Cereals and Pulses, Wageningen/Leiden/Wageningen 2006, 76–82.

30 Nicolas Auguste Paillieux, Le soya: Sa composition chimique, ses variétés, sa culture et ses usages, in: Bulletin de la Société d'Acclimatation 27 (1898), 414–471, 538–596, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 22–25.

31 M. Egasse, Le soja et ses applications économiques et thérapeutiques, in: Bulletin Général de Thérapeutique Médicale, Chirurgicale, Obstétricale et Pharmaceutique 115 (1888), 433–448. English translation by the author.

Figure 1: Louis Trabut (from his 1929 obituary)

Source: Maire René, Notice nécrologique, in: Revue de botanique appliquée et d'agriculture coloniale 9/98 (1929), 613–620, 617.

therapy. From the 1890s, the Algerian government stations at Rouiba and Maison Carrée led by Louis Charles Trabut emphasised the legume's drought tolerance, high protein and fat content, and value for animal feed and dairy.[32] Trabut acknowledged soy's green-manure potential as well, but concluded that it was "more useful for the production of seed and a rich summer forage" while also cooking soybeans for local populations and framing the crop as a tool to "reform indigenous diets."[33]

Parallel initiatives emerged across the British Empire. In southern Africa, the *Transvaal Agricultural Journal*[34] and the *Natal Agricultural Journal*[35] became key venues for soybean advocacy. Articles praised the crop as fodder: "Cattle and mules took to it at once, and looked for more."[36] Joseph Burtt-Davy, Transvaal's agrostologist and botanist, positioned soy in rotations, recommending legumes (soy, peanuts, sugar beans) to "add nitrogen as well as humus to the soil, particularly stressing the fruitful combination with maize."[37] Although industrial

32 Louis Trabut, Le soja, in: Informations Agricoles, Service Botanique, Gouvernement Général de l'Algérie 16 (1898), 7, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 31–32.

33 Louis Trabut, Rapport à M. le Gouverneur Général sur les études de botanique agricole entreprises en 1898, in: Informations Agricoles, Service Botanique, Gouvernement Général de l'Algérie 19 (1899), 83, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 32.

34 This journal was published quarterly between 1902 and 1911 "to assist the farming population with expert advice, to record and adapt to this country's requirements the known successful methods of the farming communities of other countries." Department of Agriculture (South Africa), Rural Notes, in: Transvaal Agricultural Journal 1/1 (October 1902), 1–8.

35 In 1911, it was superseded by the *Agricultural Journal of the Union of South Africa*, created as part of the political unification of South Africa in 1910.

36 G. Lewis, The Soy Bean in the Transvaal, in: Transvaal Agricultural Journal 1/4 (July 1903), 40–41, 41.

37 Joseph Burtt-Davy, Botanical Section: Wheat Growing in the Western Transvaal, in: Transvaal Agricultural Journal 6/22 (January 1908), 250–264, 253; Joseph Burtt-Davy, Botanical Section: Soy-Beans, in: Transvaal Agricultural Journal 9/33 (October 1910), 41–42; Joseph Burtt-Davy, Botanical Section: The Planting and Cultivation of the Maize Crop, in: Transvaal Agricultural Journal 8/29 (October 1909), 60–76, 61 and 74–75.

oil and soap prospects were discussed, Burtt-Davy stressed soy's principal value as protein-rich stock feed and green manure – "a more profitable rotation crop" than those which can only be ploughed under "because there is no use for the by-products", while emphasising that wider adoption required local trials and varietal adaptation."[38]

At Cedara Experiment Station (founded in 1902), director E. R. Sawer emerged as a leading advocate, calling soy the "principal grain-producing leguminous crop" for the province. Based on repeated station trials, he argued that grain legumes were essential but demanding components of Natal's agricultural system, requiring careful experimentation, suitable soils, and appropriate moisture and fertilisation rather than simple transfer of practice. While peas and cowpeas proved useful under specific climatic conditions, Sawer concluded that soybeans stood out as the most promising legume for commercial cultivation at Cedara: soy combined high protein and oil content, strong responsiveness to fertilisers, and particular suitability for rotation with maize, making it economically worthwhile when properly managed.[39] Cedara trials reported yields up to 1,252 lb/acre (using Chinese seed), and Sawer shipped seed to the United States Department of Agriculture (USDA).[40]

Trials soon spread across Mauritius, Nigeria, Malawi, Tanzania, the Gold Coast (Ghana), Egypt, Sudan, Gambia, and Rhodesia (later Zimbabwe and Zambia). A 1909 report from the Institute of Commercial Research in the Tropics at Liverpool University deemed soy likely viable "in most of the African colonies," especially in rotation with maize.[41] German botanists trialled soy at Amani (Tanzania); Belgians did so in the Congo. Catholic missions promoted soymilk for malnutrition.[42] Portuguese agronomists hailed the crop as "invaluable" for Mozambique's Zambezia province for enriching coconut plantations, feeding draft animals, supplying local food, and enabling surplus sales to South Africa. They further wrote that "great progress has been made in the cultivation of Soya Bean" in West Africa, and that there was "no reason why Portuguese East Africa should not do just as well."[43] The trials were often described as promising a "great future" for growers in West and South Africa.[44] Beyond experimental stations, officials sought to popularise soy among settler farmers. In 1908, H. J. Choles (Department of Agriculture of the Natal Colony) addressed "progressive farmers," portraying soy as an overlooked but highly promising crop. He praised its nutritional profile – "above all other pulses as an albuminous food" – and its agronomic resilience, stating

38 Joseph Burtt-Davy, Botanical Section: The Soy-bean (Glycine Hispida), in: Transvaal Agricultural Journal 8/32 (July 1910), 620–633, 625.

39 Sawer, The Place of Legumes.

40 E. R. Sawer, Cedara Memoirs on South African Agriculture, vol. I, Pietermaritzburg 1909; E. R. Sawer, Cedara Memoirs on South African Agriculture, vol. II, Pietermaritzburg 1911; E. R. Sawer, Studies in Agriculture. Series 2: The Soya Bean, Natal 1910; USDA, Bureau of Plant Industry, Inventory. Washington, D.C. 1911, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 52–55, 77–78.

41 E. S. Edie, Cultivation and Uses of Soya Beans, in: Bulletin: Institute of Commercial Research in the Tropics 1/1 (1909), 1–7, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 45; Cultivation and Utilisation of Soy Bean II, in: Bulletin of the Imperial Institute 8/1 (1910), 40–42, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 52.

42 Khojely, History, 227.

43 E. H. Heron, O feijão soya e os seus usos, in: Boletim da Repartição de Agricultura de Moçambique 5 (1911), 12–14, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 72–73.

44 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 56.

that it "stands drought well and is not easily injured by excess moisture."[45] Drawing on scientific analyses from Europe, East Asia, and USDA, Choles presented soy as a globally validated solution to fodder shortages, soil depletion, and dietary deficits.[46] In his vision, adopting soy meant joining the world of modern, science-guided farming.

Demand, trade, and persistent projection

European demand for fats and oils surged in the early twentieth century. Scientific knowledge transformed the fat market, expanding the range of raw materials and end products. New techniques for hydrogenation, refining, deodorising, winterising, and solvent extraction turned vegetable oils into cheaper substitutes for animal fats.[47] The *Manchester Guardian* hailed soy's "manifold uses" including yielding oil, feed, bread, soap and "milk substitutes," and discussed integrating African production into British supply chains. Oil was the prime product, but protein-rich meal (the by-product of oil extraction) fuelled pork and dairy.[48]

Prices for soybeans and other oilseeds began to rise around 1910, conjuring up the prospect of remunerative African production in addition to rotation benefits with maize in Natal's upland, midland, and coastal districts and throughout the Gambia, Sierra Leone, Nigeria, and the Gold Coast.[49] Large volumes of Manchurian soy were already being imported into Liverpool and Hull since late 1908, and unprocessed beans were traded widely across Europe.[50] These cheap Manchurian supplies did not dampen the hopes for African production, however: Trial harvests from Africa were shipped to Liverpool for oil analysis, and the continent ("West, East, and South") was repeatedly cast as suitable for soy, with some even suggesting African experience could inform U.S. Cotton Belt expansion.[51] At the same time, bottlenecks including low seed viability and the absence of satisfactory harvesting methods impeded diffusion.

Imperial entrepreneurs followed: Seeking low-cost oils for soap, paint, explosives, confectionery and margarine, shippers scanned the tropics. Sir Alfred Lewis Jones teamed with seed broker A. Grenville Turner to promote soy across British West Africa.[52] Turner's 1909 tour reported rapid germination and early maturity in Nigeria and the Gold Coast, as well as promising prospects in East Africa, Rhodesia, and the Cape (including a variety yielding 513 lb of seed per acre at Cedara).[53] Commissioned by Lever Brothers, Turner distributed seed and bulletins in South Africa (1910–1911). Despite the prevailing drought, soy report-

45 Herbert John Choles, The Soy Bean: A Valuable Fodder Plant and Its Cultivation, in: Natal Agricultural Journal 11/11 (1908), 1411–1423.

46 Ibid.

47 Prodöhl, Globalizing the Soybean, 43.

48 Baraibar Norberg/Deutsch, Soybean, 134.

49 Charles V. Piper/William J. Morse, The Soybean, New York 1923, 49–54.

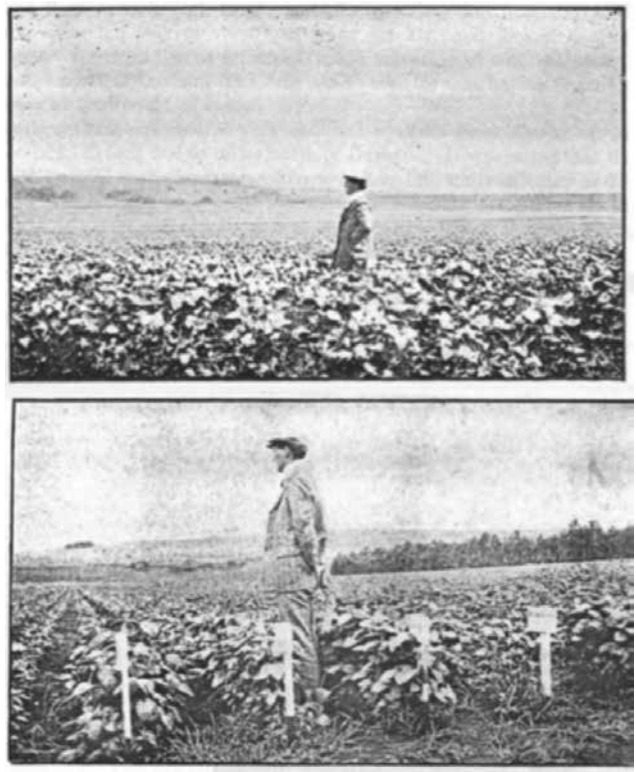
50 Prodöhl, Globalizing the Soybean, 16; A. Grenville Turner, The Soy Bean, in: Agricultural Journal of the Union of South Africa 7/1 (January 1914), 67–77.

51 Grenville Turner, The Soy Bean, 71.

52 Sir Alfred Jones was a British shipping magnate, often called the "Uncrowned King of West Africa," who built a vast commercial empire spanning shipping, banking, cold storage, commodity trade and tourism. See Alan Hay Milne, Sir Alfred Lewis Jones, K. C. M. G.: A Story of Energy and Success, Liverpool 1914.

53 Grenville Turner, The Soy Bean, 71.

Figure 2: E. R. Sawer in a field of soybeans, Cedara, c. 1910



Source: Sawer, Cedara Memoirs, vol. II, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 80.

edly withstood conditions "too severe for even maize." [54] Turner forecast European demand "up to ten million tons per annum," envisioning South Africa shipping "all the beans she can produce."[55] He further argued that soy had the potential to provide wealth across a wide range of colonial industries and services, from railways to farm co-operatives.[56]

Early issues of the *Agricultural Journal of the Union of South Africa* claimed local soybeans averaged about 20 per cent oil (and were thus worth "£8 per ton more" than German or Manchurian beans), with lower freight costs to England than from Manchuria.[57] Researchers at USDA echoed that beans grown in South Africa yielded 20 to 22 per cent oil, as against 15 to 16.5 per cent for the same varieties grown in Manchuria.[58] Sawer likewise championed South

54 Ibid., 71.

55 Ibid., 68–72.

56 Ibid., 74–75. Turner continued to advocate for soy for many years, see Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 148.

57 This journal superseded the Transvaal Agricultural Journal and the Natal Agricultural Journal, see Rural Notes: Soy Beans, in: Agricultural Journal of the Union of South Africa 2/1 (January 1911), 126–127, https://hdl.handle.net/10520/AJA0000021_450; Erwin Thompson, Soya Beans in South Africa, in: Daily Consular and Trade Reports, 21 November 1913, 955, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 88.

58 Piper/Morse, Soybeans in Africa.

African soy as commercially superior due to its high oil content and favourable freightage to England.[59]

A few years later, another agriculturalist wrote that "there can be no doubt about the great future of the Soya Bean industry, in the many parts it takes in commerce," hoping to spur farmers to "continue their experiments and carry them to a successful issue."[60] Commercial and diplomatic actors from the United States also showed interest, showcasing African soy at fairs in Calabar and Lagos and exhibiting oil, flour, biscuits, and coffee substitutes to encourage local cultivation for export.[61] World War I disruptions intensified these trans-imperial initiatives, framing Africa as a potential site for both production and consumption. On paper, the case for an African soy frontier appeared technically and commercially sound.

Persistent limitations and the collapse of the colonial soy project

Despite early optimism, many trials disappointed. In the Gold Coast, director of agriculture W. S. D. Tudhope judged soy "unsatisfactory," stating that its seed lost "vitality in a few weeks" and calling it "unlikely that it will ever be largely grown here."[62] Similar verdicts came from German East Africa,[63] Mauritius,[64] Rhodesia,[65] Uganda,[66] Algeria,[67] Zanzibar, and Portuguese East Africa.[68] The cited constraints included poorly adapted varieties, lack of inoculants, pests, harvesting difficulties, and the absence of processing infrastructure. Even in South Africa, Burtt-Davy conceded in 1913 that soy was "too uncertain" for silage and less satisfactory than velvet beans or cowpeas.[69] In Southern Rhodesia, J. A. T. Walters reported that while early experiments had been promising, later trials failed to increase yields regardless of the

59 Sawer, Cedara Memoirs, vol. II, 79–80.

60 J. A. Y. Walters, Dhal or Pigeon-Pea (Cajanus indicus), in: Rhodesia Agricultural Journal 11/8 (1914), 1137–1140, 1138.

61 U.S. Bureau of Manufactures, Soya Bean Growing for Africa, in: Daily Consular and Trade Reports, 19 November 1909, 4; The Soya Bean, in: London and China Telegraph, 6 December 1909, 1086; Bulletin of the Imperial Institute, 7/3 (1909), 308–314, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 48–56.

62 W. S. D. Tudhope, Agricultural Department, Aburi, in: Government Gazette (Accra) 8 (1912), n.pag., in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 81–82.

63 A. Eichenger, Über Leguminosenanbau und Impfversuche, in: Pflanzer 8/4 (1912), 190–219, in: Shurtleff/Aoyagi, History of Soybeans and Soyfoods in Africa, 87–8.

64 P. Boname, Soja, in: Île Maurice Station Agronomique, Rapport Annuel 1911 (1912), in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 84–85; Piper/Morse, Soybeans in Africa.

65 J. A. T. Walters, New Crops for Rhodesia: Results of Experiments, in: Rhodesia Agricultural Journal 11/2 (December 1913), 217–219.

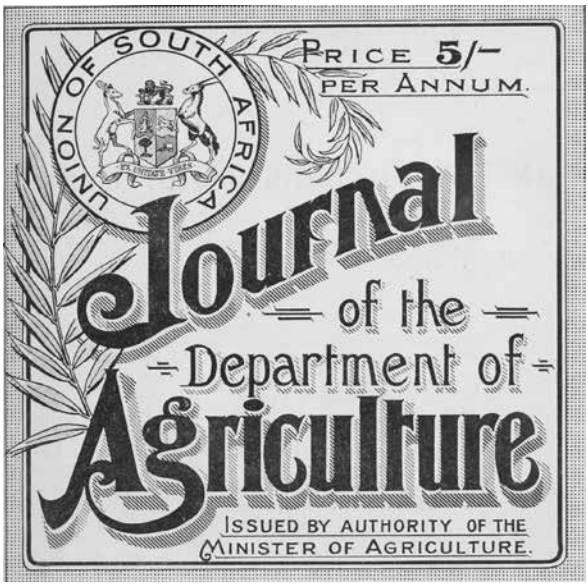
66 J. D. Tothill, Agriculture in Uganda, London 1940, 104–182, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 93–98.

67 Joseph Crèpin, Séance générale du 7 avril 1919, in: Bulletin de la Société d'Acclimatation 66 (1919), 289–296, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 111–112.

68 Chemist and Druggist (London), Soya-Bean Cultivation, in: India and the East, 6 September 1913, 383.

69 Joseph Burtt-Davy, The Preservation and Use of Maize for Stock Feed, in: Agricultural Journal of the Union of South Africa 5/4 (1913), 75–88.

Figure 3: Journal of the Department of Agriculture, Union of South Africa (1920)



Source: Wikimedia Commons, https://commons.wikimedia.org/wiki/File:Journal_of_the_Department_of_Agriculture,_Union_of_South_Africa_(1920)_(14767397285).jpg (30 June 2026).

seed varieties used.[70] By the early 1920s, most publications reported low seed yields (forage excepted), high uncertainty, and negligible commercial production.[71]

Even where trials proved successful, production did not take off. Egypt is an illustrative example: Soybeans performed well there due to lower water requirements compared to cotton and a short growth cycle, yet farmers preferred other crops, notably maize. Promising trials were seldom followed by larger-scale tests.[72] Agronomists in Southern Rhodesia (today's Zimbabwe) likewise complained that farmers found it easier to produce other crops such as maize, and that encouraging experimental results did not translate into broader adoption.[73] By the 1920s, soy experiments had been abandoned at many stations; elsewhere, however, cultivation persisted but remained largely confined to research stations, missions, and smallholder pockets (for example, Nigeria's Tiv Division), without expanding into large-scale production.[74]

USDA reports noted occasional successes (for example, hay yields in Egypt), but also mentioned recurring obstacles including storms, bird damage, harvesting bottlenecks, and

70 J. A. T. Walters, New Crops for Rhodesia, in: Rhodesia Agricultural Journal 15/6 (December 1918), 529–534.

71 Pierre Crèpin, Extraits des procès-verbaux des séances de la société: Séance générale du 4 décembre 1922, in: Bulletin de la Société d'Acclimatation 70/2 (1923), 17–23.

72 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 97–101.

73 H. C. K. Fynn, Statistics of Crops Grown by Europeans in Southern Rhodesia for the Season 1920–21, in: Rhodesia Agricultural Journal 19/2 (1922), 29–36; Dorothy Margaret Adkins, The Soya-Bean Problem, in: Science Progress (London) 15/59 (January 1921), 445–451.

74 L. Pynaert, Le soja, in: Bulletin Agricole du Congo Belge et du Ruanda-Urundi 11/1–2 (1920), 151–186, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 74–98.

unreliable nodulation.[75] Agronomists struggled to find varieties whose vegetative cycles were "in sync with the cosmic environment," meaning aligned with local day lengths, temperatures, and seasonal rhythms.[76]

At the same time, agricultural science increasingly recognised that low yields were often caused by the absence of appropriate soil microbes required for nitrogen fixation. An influential article in the *Bulletin de la Société d'Acclimatation* reported that soy "only succeeded on land where soil from the country of origin had been spread," since such soil contained the necessary root-nodule bacteria (Bradyrhizobium).[77] This practice was soon replaced by seed inoculation with selected strains. Trials at Cedara in 1921–1922 showed that inoculated plants produced abundant nodules and markedly higher yields, whereas uninoculated ones produced none.[78] Agronomists emphasised that when the correct bacteria were present, legumes such as soybeans enriched the soil with nitrogen – thus explaining why farmers often saw little soil improvement in early, uninoculated trials.[79]

Even as technical knowledge improved, market and policy conditions shifted in ways that disadvantaged African soy cultivation. Production expanded rapidly in Manchuria and Japan, and in the United States by the end of the period as well, while European demand proved insufficient to sustain African exports. Prices fell below competitive levels. Soybeans no longer seemed likely to play a significant role in African commercial agriculture, whereas palm oil and cotton continued to underpin several colonial economies. Amid recurring warnings of raw-material 'crises,' firms increasingly pivoted toward tropical concessions in palm, copra, and kernels, aligning production with metropolitan industrial needs.[80] Many stations that had launched soybean trials eventually abandoned them.[81] This marked the decline of the enthusiastic Colonial Experimental Regime.

Analytical reflection: Soy and the first food regime

In the late nineteenth century, amid imperial expansion and scientific optimism, soy entered Africa as an experimental crop of promise. Colonial soybean initiatives in Africa unfolded during the first food regime (1880s–1930s), a period defined by British imperial hegemony, global grain circuits linking settler agriculture to European industrialisation, and expanding imperial transport and finance infrastructures. Within this system, Africa occupied a peripheral position: It was incorporated not as a supplier of staple grains – as in the settler-colonial

75 Piper/Morse, Soybeans in Africa.

76 See Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 121–127.

77 Extraits des procès-verbaux des séances de la Société. Botanique (Mr. Rouest), in: Bulletin de la Société d'Acclimatation 68 (February 1921), 138–139, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 117.

78 Department of Agriculture (South Africa), The Schools of Agriculture and Experiment Stations, in: Journal of the Department of Agriculture 7/1 (July 1923), 13–16, 14–15.

79 Farming in South Africa (Pretoria), in: Bacterial Co-operation 4/45 (December 1929), 457, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 155–156.

80 Grenville Turner, The Soy Bean, 74.

81 D. Kaltenbach/J. Legros, Soya: Selection, Classification of Varieties, Varieties Cultivated in Various Countries, in: Monthly Bulletin of Science and Practical Agriculture, International Institute of Agriculture 27/8 (1936), 291T–295T.

regions of North America, Australia, and Argentina – but instead as a source of raw materials, labour, and extractive agricultural potential.

From an agrarian political economy perspective, early soy interventions were not merely technical experiments but rather part of broader efforts to commodify African land and labour, restructure rural production, and consolidate developmental authority over colonised agrarian systems.[82] Imperial planners imagined that Africa could contribute to global oilseed markets – supplementing or even substituting for Asian sources such as Manchuria – and thereby deepen the continent's integration into imperial trade networks. Soy was thus integrated into wider agendas of agricultural modernisation. These agendas were not uniform, however; they comprised interlinked ideas about productivity, order, revenue, and control. The establishment of botanical gardens and agricultural research stations, the proliferation of trial plots for cash crops (cotton, coffee, groundnuts, and later soybeans), the promotion of 'scientific agronomy' through crop rotation, fertilisers, and varietal selection, and the push for permanent farming under private or individualised tenure formed part of a broader project to remake African agriculture. These interventions rested on the belief that scientific knowledge, commercial integration, and moral discipline could transform land, labour, and diets into productive components of the imperial economy while leaving existing social and ecological systems subordinate to external control.[83] Soy was promoted as a technical solution to multiple perceived crises – soil exhaustion, protein scarcity, and rising demand for industrial oils. Yet these framings also helped to legitimise more far-reaching projects of agrarian reorganisation: the expansion of research institutions, the entrenchment of new property regimes, and the remaking of local cultivation systems according to imperial developmental logics.

Material outcomes, however, were limited. Despite numerous trials, soybeans failed to scale. Agronomic constraints (poorly adapted varieties, lack of inoculants, uncertain yields, and inadequate processing capacity) intersected with structural limits of the first food regime, which did not position Africa as a major oilseed supplier. China dominated global production by 1910 (roughly 71 per cent), with Manchuria adding another 16–17 per cent.[84] Yet soy in Africa played a significant symbolic role: Colonial documents repeatedly framed it as a crop of modernity capable of improving soils, supplying protein, reforming diets, and supporting industrial production. It became a 'future crop,' a speculative horizon of agrarian modernity that justified new forms of land control, scientific authority, and institutional expansion despite negligible material results.

In sum, early soy initiatives reveal contradictions at the heart of the first food regime. They sought to reorganise African agrarian systems in line with imperial priorities, reflecting ambitions of productivity, order, revenue extraction, and civilisational pedagogy even as they collided with ecological and socio-economic constraints. Soy functioned less as a realised commodity than as an anticipatory project, invoked as a promise of progress but rarely produced at scale.

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82 Sara Berry, Struggles over Land and Authority in Africa, in: African Studies Review 60/3 (2017), 105–125; Samir Amin, Neo-Colonialism in West Africa, London 1972; John Iliffe, The African Poor: A History, Cambridge 1983.

83 Bernstein, Class Dynamics, 61–65.

84 Baraibar Norberg/Deutsch, Soybean.

Although the Colonial Experimental Regime eroded during the 1930s owing to the rise of cheap soy from Manchuria and the United States along with ongoing underperformance in Africa, soy remained present in the intervening phase of reorganisation before the second regime. It continued to be praised as forage (notably for pigs and cattle in Algeria), used as green manure (e.g., in the Congo), and occasionally included in crop rotations in South Africa.[85] South Africa also had two factories crushing soybeans for oil – though most soy oil was imported, since foreign oil was significantly cheaper than the domestic production.[86] Imports of soy oil also rose in Egypt and Portuguese East Africa, reflecting external rather than domestic supply dynamics.[87]

During this period, concerns over food shortages once more drew attention to soy as a potential emergency crop. One report noted: "The soybean has once again come into the limelight because of food shortages in West Africa. […] Soy flour is excellent for fortification of breads, and it blends well with cocoa or chocolate."[88] Soy was mentioned as a possible famine-relief food in Ruanda, and a Congolese report described how it could contribute to "improving the diet of the indigenous people."[89] These short-lived revivals foreshadowed soy's later role as a food-aid commodity in the Cold War Developmentalist Regime. At the same time, older colonial imaginaries of Africa as a laboratory and soy as a speculative future crop would reappear in postwar developmental agendas – reframed in the contexts of nutrition, food aid, and Cold War geopolitics.

Cold War Developmentalist Regime (1950s–1970s): Soy as a nutritional technology and aid commodity

In the postwar decades, a new geopolitical and economic order emerged. The United States consolidated hegemony within the Bretton Woods framework; development planning, food aid, and technical assistance became central instruments of global governance.[90] This developmentalist imaginary converged with the rapid transformation of soy in the United States. After decades of varietal adaptation and agronomic research, soy became a major Midwestern crop; production rose sharply as industry bodies such as the American Soybean Association (ASA) and the National Soybean Processors Association (NSPA) gained influence, and protectionist measures underwrote a powerful domestic complex around oil and meal crushing.[91]

85 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 141–154.

86 Soya Bean as an Alternative Summer Legume, in: Farming in South Africa 2/21 (December 1927), 497–498, 148.

87 Ivan Grinenco/Giorgio Capone (eds.), Produits oléagineux et huiles végétales: Étude statistique sur leur production et leur mouvement commercial, Rome 1921.

88 Soya Bean Culture and Consumption, in: Tropical Life (England), 25/288 (June 1929), 104.

89 L. Tihon, À propos d'une variété nouvelle de soja O-too-ton, in: Bulletin Agricole du Congo Belge 22/1 (1931), 120–123.

90 Philip McMichael, Food Regimes and Agrarian Questions, Winnipeg 2013, 14.

91 Baraibar Norberg/Deutsch, Soybean, 139–143. See also the contribution by Langthaler and Ryzhova in this volume.

U.S. policy linked surplus management to foreign policy, using agricultural exports, concessional sales, and food aid to advance wider strategic aims.

Across Africa, protein-energy malnutrition, ecological limits to livestock production (not least due to tsetse), and urban food insecurity rose to prominence in national and international agendas. Against this backdrop, soy was reframed as a modern solution. International agencies and postcolonial governments promoted soy and soy-based products, including milk substitutes, weaning foods, and fortified blends. This developmentalist regime broadly overlaps with the continent's long decolonisation moment, during which most nations gained independence and began building new agricultural and state institutions. While many policies aimed at self-reliance, they often depended on external aid. Soy thus re-emerged as both a crop and a symbol, expected to alleviate hunger, overcome perceived agricultural backwardness, and absorb U.S. surpluses.

Experimentation, breeding, and production

Agronomic interest in soy that had already emerged during the first regime did not disappear. Trials continued across the continent with new introductions and breeding lines, yet observers repeatedly concluded that cultivation had not moved beyond the experimental stage.[92] USDA soybean specialist William Morse wrote in 1950 that although experiments had been conducted in nearly all regions of Africa, the crop remained unfamiliar to most farmers despite successful plots in Natal, the Gambia, Nigeria, Egypt, the Gold Coast, Angola, and the Belgian Congo.[93]

Agricultural officers frequently acknowledged this gap. In 1959, a Rhodesian agronomist noted that although soybeans had been grown successfully on research stations for two decades and had proved well suited to local conditions, with an average yield of approximately 1,500 kilograms per hectare at the Salisbury station, they were still planted on few farms. The explanations offered were consistent: the absence of stable markets, unreliable inoculants, limited processing capacity, and varieties prone to shattering when mechanical harvesting required non-shattering types with uniform maturity. Seed improvement typically lacked capacity for hybridisation, which kept the genetic base narrow and slowed gains.[94]

Faith in the soybean persisted, however: In the *Soybean Digest*, A. R. Saunders from the Potchefstroom College of Agriculture reported that while soy had not yet attained economic importance, progress was being made through cooperative breeding at both Potchefstroom and the Natal Agricultural Research Institute on non-shattering types suitable for mechanised harvest by combining U.S. early maturity strains with seed-retaining local strains. He

92 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 278–298.

93 FAO, Plant Production: Tabulated Information on Tropical and Subtropical Grain Legumes, Rome 1959, xvi–367; William Joseph Morse, History of Soybean Production: World Distribution, in: K. S. Markley (ed.), Soybeans and Soybean Products, vol. I, New York 1950, 11–14, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 287–288.

94 H. C. Thorpe, Annual Report for the Year 1951, vol. 2: Record of Investigations, Nairobi 1951, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 299.

anticipated that adoption would still take more time despite growing interest among farmers and manufacturers, however.[95]

These hopes aligned with postwar confidence in accelerated plant improvement.[96] Controlled hybridisation and other experimental techniques were expected to close yield gaps and expand agro-ecological frontiers. Marcel Blanchard of the *Service de l'Expérimentation Agricole* in Algeria advocated a U.S.-style breeding trajectory, envisioning soy as a commercial crop and potential export commodity.[97] Alongside new technologies, faith in 'education' was high. Farmer adoption was promoted through extension and vernacular materials. One example was an Ethiopian growers' manual in Amharic, which introduced the "foreign pea" to local agronomy and cooking.[98] Education was often expected to remedy nonadoption even when the constraints were structural (credit, input delivery, storage, and assured markets) rather than informational.

FAO yearbooks recorded modest production outside stations in the late 1940s in places such as Nyasaland, Ruanda-Urundi, Southern Rhodesia, Uganda, Ethiopia, and the Union of South Africa, yet production remained marginal and localised.[99] According to FAOSTAT data, total African soybean output stood at roughly 70,000 tonnes by 1961, with Nigeria accounting for around 80 per cent.[100] By contrast, the United States had already been producing more than 1 million tonnes, and 'China Proper' more than 6 million tonnes, by 1947.[101] By 1961, global production had risen to around 27 million tonnes, with Africa contributing roughly 0.27 per cent.[102]

Across the continent, low seed viability, disease and insect pressure, and lodging and shattering made soy unpopular with many farmers.[103] Smallholders faced recurrent constraints: limited access to credit, fertiliser, inoculants, and reliable buyers, as well as to the labour and knowledge required for an unfamiliar crop. Plantings fluctuated with prices, inputs, and seasonal labour demands.[104] From the mid-1960s onward, soy received increased attention as many African states adopted development strategies oriented towards agricultural modernisation and import substitution through state farms, crop diversification, irrigation schemes, and parastatal marketing boards.[105] These efforts illustrate how newly independent

95 A. R. Saunders, Soybeans in South Africa, in: Soybean Digest 13/1 (November 1952), 15–16.

96 Jennifer Clapp, Titans of Industrial Agriculture: How a Few Giant Corporations Came to Dominate the Farm Sector and Why It Matters, Cambridge/London 2025.

97 Marcel Blanchard, Recherches sur la biologie et la culture du soja en Algérie, in: Annales de l'École Nationale d'Agriculture d'Alger (1956), 1–118.

98 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 311.

99 FAO, Yearbook of Food and Agricultural Statistics: Production. Soybeans. Area, Yield, and Production, Geneva 1948.

100 FAOSTAT, Crops and Livestock Products, Production Quantity (Soya beans), Africa (Total) and World (Total), 1961, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/QCL (10 January 2026).

101 FAO, Yearbook.

102 FAOSTAT, Statistical Database, https://www.fao.org/faostat/ (15 January 2026).

103 T. P. Singh, Soybean Improvement Work at IITA, in: R. A. Luse/K. O. Rachie (eds.), Proceedings of IITA Collaborators' Meeting on Grain Legume Improvement, Ibadan 1975, 19–20.

104 E. M. Shumba, Do Soyabeans Have a Place in Communal Areas? A Review of Production Problems and How the Crop Can Feature in These Areas, in: Zimbabwe Agricultural Journal 80/5 (1983), 189–191; Smartt, A Guide to Soya Bean Cultivation.

105 R. H. Bates, Markets and States in Tropical Africa, Berkeley/Los Angeles 1981.

states attempted to repurpose inherited colonial research infrastructures in line with developmentalist ambitions.

Where research and markets aligned, production rose; where they did not, soy remained confined to stations, projects, and a few commercial farms. From a low base in 1961 (71,813 tonnes), African soybean production rose to 97,545 tonnes in 1971 and around 370,000 tonnes by the mid-1980s.[106] Progress was real but uneven, and country trajectories diverged markedly. Nigeria led throughout the period, with extension services distributing seed widely; a significant share of Nigerian production was exported, with protein and oil contents sometimes reported as higher than in U.S. beans.[107] Uganda grew steadily from a low base.[108] Egypt, South Africa, Zambia, and Zimbabwe saw rapid growth spurts in the 1970s–1980s as state farms, irrigation schemes, and feed markets expanded.[109] Yet they also faced constraints relating to credit, fertiliser, inoculation, and marketing.[110] In Ethiopia and Tanzania, acreage declined despite renewed trials.[111] A 1988 scientific article attributes Tanzania's decline in soy growing partly to a "change in organisation" in 1963, though production later resumed on a parastatal and a prison farm, with plans for large-scale mechanised expansion and an oil mill for soybeans, sesame, and groundnuts.[112] These hopes did not materialise at the time, however.

Across different contexts, lodging, shattering, unreliable seed, and the absence of processing infrastructure still limited uptake. Production remained modest relative to global expansion and played only a minor role in agrarian transformation. Still, African soy performed better than several other development-targeted crops, even as per-capita food production declined in many African countries during the 1970s and 1980s.

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106 FAOSTAT, Crops and Livestock Products, Production Quantity (Soya beans), Africa (Total) and World (Total), 1971; 1985, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/QCL (10 January 2026).

107 By 1961, Nigeria accounted for the vast majority of recorded African output with 57,000 tonnes, which grew steadily to 78,000 two decades later. FAOSTAT, Crops and Livestock Product: Soya Bean, https://www.fao.org/faostat/en/#data/QCL (10 February 2026); J. A. Yuwa, Introduction of Soyabeans into Abuja, in: Samaru Agricultural Newsletter 5 (1963–1964), 100–101, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 370.

108 Uganda produced around 1,000 tonnes in 1961, rising to 5,000 in 1981. FAOSTAT, Crops and Livestock Product: Soya Beans.

109 Egypt had no commercial production as late as 1971 but rose rapidly to 130,360 tonnes by 1981. Zambia had no commercial production either in the 1960s or early 1970s but produced 3,673 tonnes in 1981. South Africa had a rapid spurt, going from less than 2,631 tonnes in 1961 to 27,600 tonnes by 1981. Zimbabwe (earlier: Rhodesia) followed a similar path of rapid growth, reaching about 90,000 tonnes a year in the 1980s. FAOSTAT, Crops and Livestock Product: Soya Beans; Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 306, 334.

110 Smartt, A Guide to Soya Bean Cultivation; Agricultural Marketing Authority, The 1984–85 Oilseeds Situation and Outlook Report, Harare 1984; William Shurtleff/Akiko Aoyagi, History of Food for Peace (Public Law 480) and Soybeans (1954–2021): Extensively Annotated Bibliography and Sourcebook, Lafayette 2021, 172.

111 Between 1948 and 1966, Ethiopian state farms harvested approx. 10,000–13,000 hectares of soy annually, but by the mid-1970s, only around 6,000 hectares were under soybean cultivation. Food and Agricultural Organization of the United Nations, FAO Production Yearbook: Soybeans. Area Harvested, Yield, and Production, Rome 1980, 14–16; FAOSTAT, Crops and Livestock Products, Area Harvested (Soya beans), Ethiopia and Tanzania, 1961–1989, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/QCL (10 January 2026).

112 F. Brockman, Tanzania National Grain Legume Research Program, in: Tropical Grain Legume Bulletin 8 (1977), 67–76, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 530.

New institutions, development assistance, and market formation

New institutions coalesced into a postcolonial soy network as research institutes, agricultural colleges, nutrition laboratories, state farms, and development agencies expanded roles previously played by colonial gardens and stations.[113] A central node was the International Institute of Tropical Agriculture (IITA) in Nigeria, established in 1967 by the Ford and Rockefeller Foundations and incorporated into CGIAR in 1971. IITA targeted problems commonly encountered in colonial trials, including seed viability, pests, day length mismatch, storage, and the absence of appropriate Rhizobium/Bradyrhizobium strains.[114] A hallmark was the institute's soybean breeding programme launched in 1970, which combined regional uniform trials with selection of off-types in older cultivars and introduced segregating material; under tropical conditions, breeders reported advancing materials at a rate of three generations per year under offseason nurseries.[115]

Improved varieties with shorter vegetative cycles and better suitability for humid tropics were released by the mid-1970s and trialled in Nigeria's Middle Belt and elsewhere.[116] Average yields across the continent rose from roughly 350–400 kg/ha in the 1960s to about 600–800 kg/ha in the 1970s – a significant increase, though still below other regions – while station trials sometimes reported much higher yields (up to c. 3,600 kg/ha).[117] IITA collaborated with other centres, notably with the International Soybean Program (INTSOY) at the University of Illinois and with USAID. The latter trained African plant breeders, nutritionists, and extension workers, ran variety trials across multiple agro-ecologies, provided advice on processing equipment, organised conferences, and promoted methods for integrating soy into human foods and livestock feed.[118] INTSOY's International Soybean Variety Experiment (ISVEX) distributed more than 2,000 trials to 132 countries between 1973 and 1985.[119] In Egypt, INTSOY's trials during the early 1970s, combined with subsidised fertilisers and pest control, supported rapid expansion: Within a decade, commercial production reached around 175,000 tonnes, yields reportedly rose to c. 2,296 kg/ha, and Egypt surpassed Nigeria as Africa's leading producer.[120] In general, research centres such as IITA argued that soybean production

113 Björn Beckman, Whose State? State and Capitalist Development in Nigeria, in: Review of African Political Economy (1988), 37–51.

114 S. E. Ibrahim, Agronomic Studies on Irrigated Soybeans in Central Sudan: I. Effect of Plant Spacing on Grain Yield and Yield Components, in: International Journal of Agricultural Sciences 2/8 (2012), 733–739; Jacques Larcher/S. Volper/J.-P. Aubin, Le soja en régions tropicales: Une synthèse des recherches de l'IRAT, in: Mémoires & Travaux de l'IRAT 15 (1988), 1–185.

115 IITA, Soybean Breeding, Grain Legume Improvement Program. Report, Ibadan 1973.

116 K. E. Dashiell/L. L. Bello/W. R. Root, Breeding Soybeans for the Tropics, IITA, Ibadan 1987; Zimbabwe and Zambia Move Ahead on Expanded Use of Soybeans, in: INTSOY Newsletter 37 (October 1987), 2–3.

117 FAOSTAT, Crops and Livestock Products, Yield (Soya beans), Africa (Total), 1961–1980, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/QCL (10 February 2026); Singh, Soybean Improvement Work.

118 INTSOY, Cooperative Efforts in Nigeria Aim to Increase Soybean Use across Africa, in: INTSOY Newsletter 37 (October 1987), 3–4; INTSOY, Outreach – Zaire and Ghana, in: INTSOY Newsletter 10 (February 1977), 2; D. K. Whigham (ed.), Soybean Production, Protection, and Utilization: Proceedings of a Conference for Scientists of Africa, the Middle East, and South Asia, Urbana-Champaign 1976, 196–197.

119 Khojely, History, 227–231.

120 INTSOY, INTSOY Research Highlights. Soybean Genetic Improvement Program, in: INTSOY Newsletter 20 (February 1980), 1–2.

would soon take off given its protein and oil profile and its potential role in addressing hunger and malnutrition.[121] Within this architecture of international cooperation and state planning, extension services, free distribution of inoculants and seed, and state farms were deployed to help soybean make a larger leap. Research networks raised potential yields, but macro-policy and input bottlenecks often stalled diffusion. Moreover, industrialisation strategies (including import substitution and overvalued exchange rates) sometimes disadvantaged agriculture, constraining wider uptake.[122]

Beyond the promotion of soy production, a strong institutional landscape pushed the legume as a 'starvation food.' In this context, Public Law 480 (later known as Food for Peace, 1954) stands out as the principal channel for routing grains and oils into African food systems.[123] Designed to dispose of U.S. surpluses, develop foreign markets, and advance geopolitical aims, PL 480 exported wheat, rice, soybean oil, soy flour, and soy-fortified blends.[124] Title I concessional sales built markets and often converted local currency proceeds into technical assistance, infrastructure, or administrative budgets;[125] Title II humanitarian aid distributed corn-soy and wheat-soy blends to schools, clinics, and emergency rations via voluntary and multilateral partners; Title III later supported non-emergency programmes.[126] Soybean oil, soy flour, and soy-fortified blends (corn-soy milk, corn-soy blend, wheat-soy blend, later also soy-fortified sorghum grits) were programmed across the law's titles.[127] Industry leaders credited PL 480 with absorbing a large share of soybean oil exports, stabilising the U.S. domestic crushing complex.[128] By the late 1960s and early 1970s, Africa received tens of thousands of tonnes of cereal-soy blends annually.[129] Whole beans remained peripheral; processed soy integrated into cereal matrices became routine in aid infrastructures.[130] These channels simultaneously served two purposes: They relieved U.S. commodity pressure at home while feeding the hungry abroad, as President Kennedy said at the 42nd annual convention of the ASA in 1962.[131] In addition, as stated by Fred Marshall in a letter to the U.S. Congress, food

121 Singh, Soybean Improvement Work.

122 Ana P. F. Mendes/Mario Bertella/Rudolph Teixeira, Industrialization in Sub-Saharan Africa and Import Substitution Policy, in: Brazilian Journal of Political Economy 34/1 (2014), 120–138.

123 Nelson J. Post, Food for Peace: Plans and Objectives, in: USDA Northern Regional Research Laboratory (ed.), Proceedings of Conference on Soybean Products for Protein in Human Foods, Peoria 1962, 19–25.

124 Shurtleff/Aoyagi, Food for Peace, 20–47.

125 PL 480 offered long-term, low-interest credit (Title I) for recipient countries to pay in local currency. This enabled poor nations to import U.S. commodities without exhausting scarce foreign exchange. See: Meals for Millions, U.S. Distribution of Relief Shipments, September 1946–May 15, 1963: Friendship Food for a Hungry World, Washington, D.C. 1963.

126 Shurtleff/Aoyagi, Food for Peace, 21–26.

127 Fred Marshall, Congress Letter, in: St. Cloud Times, 21 June 1954, 10.

128 Earl L. Butz, Growth Without Ceiling! Prosperity in the Industry Depends on Producing for a Growing Market and Not for the Government, in: Soybean Digest (October 1957), 12–13.

129 U.S. Department of Agriculture, Food for Peace: 1970 Annual Report on Public Law 480, Washington, D.C. 1971, 113–120, in: Shurtleff/Aoyagi, Food for Peace, 129.

130 U.S. Department of Agriculture, Annual Reports on Activities Under Public Law 480, Washington, D.C. 1975–1979, in: Shurtleff/Aoyagi, Food for Peace, 141–142, 150, 156, 161, 173–174, 183.

131 "[T]his Administration ministration has encouraged expansion of U.S. soybean production, both to bring about a better balance in American agricultural production and to better meet world protein requirements in our Food for Peace program throughout the world. […] We welcome and appreciate your continuing interest in government farm and food programs at home and abroad." John F. Kennedy, Greetings from the President of the United States, in: Soybean Digest 22 (October 1962), 54–57.

could do "more permanent damage to world communism than our armies."[132] It also worked in the longer term by standardising new food technologies abroad and normalising soy's presence in institutional diets and public nutrition.

Beyond aid, the Soybean Council of America, created in 1956 by ASA and NSPA, promoted soy through concessional trade arrangements.[133] A 1960 agreement with USDA's Foreign Agricultural Service gave the Council access to foreign currencies from surplus commodity sales for work in more than forty countries, enabling studies of export barriers, buyer assistance, consumer-level promotion, and technical exchange.[134] Education and training were central, with home economists and nutrition workers acting as cultural intermediaries through workshops, demonstrations, and fairs.[135] Even advocates acknowledged that "consumers are not interested in soybeans" – but they could be interested in what soy became through processing.[136] Promotional materials, culinary demonstrations, and technical assistance linked U.S. commodity interests to postcolonial food systems, leaning on oil, flour, blends, and concentrates.[137] These institutional architectures shaped how soy circulated in processed foods – and, increasingly, in feed.

Uses: Uneven uptake, processed channels, and the rise of feed

Notwithstanding efforts to establish production, soy's most prominent role during this time often came as an ingredient in 'starvation food.' In scientific journals from the period, nutritionists and agronomists remarked that about 40 per cent of the total dry matter content of whole soybeans is protein, that they are high in caloric value (containing about 20 per cent fat), and that they could therefore help reduce the present widespread calorie and protein shortage in both human diets and livestock feed. Dietary acceptance was limited, however, which sometimes caused paternalistic frustration that attributed non-adoption to "conservatism in food habits," as illustrated in this report from a soy seminar in Zaire:

> "People have always agreed, at least in principle, that soybeans are a good solution to the problem of protein malnutrition in disadvantaged regions. Many attempts prior to 1960 in Zaire and other African countries concluded that the failures were exclusively due to the fact that Africans do not like eating soybeans."[138]

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132 Marshall, Congress Letter.

133 Glenn H. Pogeler, Aims, Objectives and Experiences of the Soybean Council of America, Inc., Paper to United Grain Growers, Royal Alexandra Hotel, Winnipeg, 14 March 1967, 13.

134 The major emphasis of the Soybean Council was to explore market potential and conduct promotional and servicing activities that would help to expand markets for the U.S. soybean industry throughout the world.

135 Shurtleff/Aoyagi, Food for Peace, 51–97.

136 Howard L. Roach, Soybean Council of America – Promotional Progress, in: Soybean Digest 20 (September 1961), 1–64; Soybean Council of America Inc., Council–FAS in First Global Contract, in: Soybean Digest 18 (January 1960), 24–25.

137 Roach, Soybean Council, 24.

138 G. Vanneste, De la campagne de soya à la campagne d'éducation sanitaire intégrale, in: Comité de Coordination pour le Développement en République du Zaïre (CODEZA), Séminaire national sur le soja, Kananga 1986, 47–58.

While nutritionists struggled to promote direct consumption, commercial agents achieved better success with soy flour (praised for its shelf life, transportability, and versatility), though palatability and culinary fit remained challenges.[139] In South Africa, an early soy-based baby food marketed under the Zulu name *Incumbe* (meaning gruel prepared by mothers to feed their babies) had been successfully commercialised since the late 1930s, but it began to lose ground in the 1950s. The reason, according to a later scientific article, was that

> "the African was becoming more sophisticated and thus suspicious of a food, or for that matter any other commodity, made specially for him. Quite understandably he believed that such articles must be inferior and that the white man was trying to profiteer at his expense."[140]

This illustrates that paternalistic marketing was starting to provoke negative reactions. The company subsequently rebranded to *Pro Nutro* and altered the product's formulation. Sales revived, and the company offered incentive prices to farmers to encourage both volume and protein quality.[141]

Aid also served to introduce soy diets, familiarising institutions and households with soy products. Before PL 480 fully ramped up, the *Meals for Millions Foundation* founded in 1946 distributed a soy-based supplement in more than twenty African countries.[142] Reports of *kwashiorkor* in the 1950s intensified work and encouraged the use of soy in schools and hospitals.[143] Both domestic governments and international organisations also sought to 'educate' consumers. For example, Iowa State University organised workshops for women on soy-based soups, breads, and porridges; 'food fairs' staged by USDA, ASA, UNICEF, and their partners invited officials to consume soy as an emblem of scientific progress.[144] In Ethiopia, the imperial government saw soy as a tool to address starvation, reduce dependence on imports, and support rural development. State farms and integrated projects trialled hundreds of varieties. The Ethiopian Nutrition Institute (ENI) experimented with soy flour in traditional foods such as *injera, wot, dabbo*, and *kitta*.[145] This approach sought to embed soy within established food cultures rather than replace them. ENI also launched additional products such as soy-wheat

139 Smartt, A Guide to Soya Bean Cultivation.

140 W. A. Odendaal, Experience in Development of Pro-Nutro in South Africa, in: Pre-School Child Malnutrition: Primary Deterrent to Human Progress, Washington, D.C. 1966, 224–232.

141 Ibid., 224.

142 Some of the receiving countries were Angola, Belgian Congo, Cameroon, Egypt, Eritrea, French Equatorial Africa, Ghana, Kenya, Liberia, Libya, Mauritius Is., Morocco, Mozambique, Nigeria, Republique du Congo, Rhodesia, Sierra Leone, South Africa, Tanganyika, Tunisia, Uganda. See Meals for Millions Foundation, Friendship Food for a Hungry World, Los Angeles 1960, 29.

143 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 285–340; Madison Survey (Madison, Tennessee), Madison Health Foods, 27/16 (29 August 1945), 63.

144 ASA To Hold Soy Protein Conference, in: Soybean Digest (November 1964), 28, in: Shurtleff/Aoyagi, Food for Peace, 99.

145 B. G. Hiwot, Home Preparation of Soybeans in Ethiopia, in: Whigham (ed.), Soybean Production, Urbana 1975,198–199.

Figure 4: Children eating *faffa* at Aware C.D. Centre, 1967

Source: Ethiopian Public Health Institute.

non-fat milk and *faffa*, a fortified porridge intended to relieve malnutrition.[146] With support from international aid, the latter became a major commercial success.[147]

By the mid-1970s, *faffa* production reached several thousand tonnes per year, with more than half purchased by UNICEF for famine relief and the rest sold locally as baby food.[148] The ambition was to achieve nutritional sovereignty via domestically grown beans on state farms, but domestic supply remained fragile. Despite sustained efforts, local beans covered only a fraction of *faffa* requirements by the early 1980s.[149]

Across contexts, food scientists explored how soy could be blended into traditional foods such as *ogi* (a fermented maize porridge popular among the Yoruba people), *akara* (Nigerian and West African bean fritters made natively from brown beans, cowpeas, or black-

146 *Faffa* is an Amharic word meaning 'Grow strong and healthy'. See Erwin Kopp, A Production Unit for Low Cost Weaning Food in Ethiopia, in: Proceedings of a Conference for Asia and Oceania, University of Illinois, Urbana 1976, 147; Yngve Hofvander, 50 Years of Ethio-Swedish Collaboration in Child Health and Nutrition: A Chronicle with Recollections and Personal Experiences, 2010, https://cdn.sida.se/publications/files/sida6135-0en-50-years-of-ethio-swedish-collaboration-in-child-health-and-nutrition.pdf (5 December 2025).

147 Gunnar Agren et al., FAFFA: A Supplementary Cereal-Based Weaning Food in Ethiopia, in: M. Milner (ed.), Protein-Enriched Cereal Foods for World Needs, St. Paul 1969, 278–287; Elizabeth Orr, The Use of Protein-Rich Foods for the Relief of Malnutrition in Developing Countries: An Analysis of Experience, Tropical Products Institute Report G73, London 1972, 8, 21.

148 Kopp, A Production Unit.

149 Soybean production declined during the 1970s, and the bulk of soy continued to be imported. Food and Agricultural Organization of the United Nations, FAO Production Yearbook, 14, 116; Orr, The Use of Protein-Rich Foods, 71.

eyed peas), breads and other foods in Nigeria, Kenya, and Ghana.[150] Particularly notable was *Soyogi,* produced by the Federal Industrial Research at Oshodi and widely distributed during the Biafran War (1967–1970).[151] Other examples include *Super Maeu* in Mozambique, *Kupangi Biscuits* in South Africa, *Soya Porridge* in Uganda, and a range of soy-cereal blends produced in Zambia.[152] In parallel, pilot projects explored soymilk for infant feeding and national nutrition programmes, sometimes framed as addressing milk shortages due to tsetse and lactose intolerance.[153] Egypt began producing soymilk for infant feeding in conjunction with France in 1984, using a portion of the national soybean crop.[154] These efforts were shaped by hopes that soy could be "domesticated" within local food cultures. The initiatives paralleled earlier colonial attempts to introduce soy into local diets, but they were now framed in the context of nutritional science, child health, and development planning. In Uganda, *Africa Basic Foods* (est. 1965) contracted small farmers, built a factory near Kampala for low-cost soy foods, and marketed to hospitals, schools, and public institutions.[155]

Soy also entered African food systems through feed. Globally, feed had become the main market driver for soy, and developing regions were targeted for poultry and livestock expansion.[156] The Soybean Council opened an office in Cairo in 1960, and another in Morocco somewhat later, to support the development of a protein feed complex.[157] Africa's soybean oil imports expanded steadily from the early 1960s, rising from around 39,000 tonnes in 1961 to fluctuating levels between 30,000 and 90,000 tonnes during the 1960s. Imports accelerated markedly from the mid-1970s, moving into the 200,000-tonne range and peaking at approximately 366,000 tonnes in 1980, while exports remained negligible (16 tonnes in 1980).[158] Egypt, Morocco and Libya accounted for a substantial share of these flows, often in tandem with state-backed investments in poultry and dairy production.[159] Egypt developed notable crushing capacity and promoted both domestic production (through irrigation, state planning, and protection) and imports of whole beans (60,000 tonnes in 1982/83) to keep crushers supplied.[160] Similar, though smaller, flows reached Tunisia, Algeria, Jordan,

150 O. L. Oke, Chemical Studies on the Nigerian Foodstuff "Ogi", in: Food Technology 21/2 (1967), 98–100; I. A. Akinrele/Charity C. A. Edwards, An Assessment of the Nutritive Value of a Maize-Soya Mixture 'Soy-Ogi,' as a Weaning Food in Nigeria, in: British Journal of Nutrition 26/2 (1971), 177–185, DOI: 10.1079/BJN19710024.

151 E. U. Edem, Soybean in Nigeria, Nigeria Department of Agricultural Research, Memorandum 116, Ibadan 1975.

152 Orr, The Use of Protein-Rich Foods, 59.

153 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 251–297.

154 Soya Foods (ASA, Europe), Egypt. Soymilk, November 1984, 3, in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 648.

155 D. W. Harrison, Analysis of the Uganda Experience Based on Africa Basic Foods Inc., paper at UNIDO Expert Group Meeting on Soya Bean Processing and Use, Peoria 1969, 43.

156 John Haymaker, The World Market Potential for Soybeans, in: Soybean Digest (May 1966), 27–30.

157 Open New Office in Cairo, Egypt, in: Soybean Digest (November 1960), 23.

158 FAOSTAT, Crops and Livestock Products, Import/Export Quantities for Soybean Oil, Africa (Total), 1961–1989, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/TC (6 February 2026).

159 Javier de Salas, Potential for Soybean Oil in Mediterranean Africa, in: Soybean Digest (May 1964), 60; André Tawa, Egypt: Soy Products for the UAR, in: Soybean Digest (May 1965), 72–73.

160 Mahmoud Naser et al., Soybean in Egypt: Current Situation, Challenges, and Future Perspectives, in: Discov Sustain 5/425 (2024), DOI: 10.1007/s43621-024-00656-x.

and Sudan.[161] Commercial imports supplied feed industries connected to aspirations for protein-rich diets and agricultural modernisation.[162] Where industrial offtake was strong and coordinated, as in feed complexes, production could expand; where offtake was weak, domestic supply rarely kept pace. This development coincided temporally with the erosion of many developmentalist efforts amid the global economic crises of the 1970s and mounting debt burdens, which marked the decline of the Cold War Developmentalist Regime.

Analytical reflection: Soy and the second food regime

In the postwar era, amid Cold War geopolitics and developmentalist planning, soy re-emerged as a nutritional technology and aid commodity. This reflects the dynamics of the second food regime defined by U.S. agricultural hegemony, aid architectures, and the political use of surplus commodities. While newly independent states arrived as central actors with their own developmental ambitions, aspects like programme design, technology choice, and commodity flows were often determined by donors, firms, and international agencies. This helped consolidate soy's role as a processed ingredient and feed input rather than as a widely grown crop. Production expanded most where feed markets, crushing capacity, and coordinated prices were present. Where promotion centred on direct human foods, the most durable gains occurred through processed products such as *faffa* or *Pro Nutro* rather than widespread farmer adoption. Industrial and humanitarian channels moved more quickly than agronomy and extension. In both domains, planners, governments and corporate intermediaries often addressed local populations in paternalist terms, attributing non-adoption to cultural conservatism while paying less attention to price, labour, taste, and the fact that many products were formulated and branded elsewhere. Training and food fairs sought to 'teach' soy as scientific progress. In practice, circulation outpaced cultivation.

The period therefore reproduced earlier ambivalences. Soy was invoked as a solution to malnutrition and livestock shortages and justified institutional expansion, yet its integration into agrarian practice remained partial. The presence of newly independent states changed the political field, but not always the hierarchy of decision-making over supply chains, processing technologies, and standard foods. African producers and consumers were incorporated into global soy circuits largely as buyers of meal, recipients of blends, and occasional growers for commercial farms rather than as the primary site of varietal development, crushing, and cuisine-led demand formation. While Food for Peace continued, classic soy-fortified PL-480 shipments diminished by the 1980s as programme structures changed. As the developmentalist model frayed, many African states faced balance-of-payments crises, commodity price volatility, and mounting debt service. Some developmentalist ambitions survived structural contradictions, however, and the neoliberal era would inherit both the promise of soy and the unresolved institutional frictions that limited uptake.

161 Frank J. Piason, Three Nations Lead Mideast/North African Buying of Soy Products, in: Foreign Agriculture, 10 April 1978, 6–7, 10–11.

162 Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 547–585.

Corporate-Neoliberal Regime (1990s–present): Soy as a flexible frontier commodity

The trade liberalisation impetus associated with the Washington Consensus and the WTO Agreement on Agriculture (established 1995) reconfigured how crops were grown, processed, and traded globally. Liberalisation, population growth, and the westernisation of diets with higher meat consumption combined with the so-called gene revolution and the spread of no-tillage farming from the mid-1990s. Together, these trends helped to push soy into new frontiers.[163] World output rose from about 64 million tonnes in 1975 to approximately 375 million tonnes in 2024.[164]

Within this context, soybeans in Africa were repositioned. Once a colonial experiment and later a developmental nutritional technology, soy now appeared as a flexible frontier commodity. It served as a feed input for expanding poultry sectors, a source of edible oil for urban markets, and a candidate for integration into new investment corridors.[165] As postcolonial agricultural architectures came under strain from mounting debt and deteriorating terms of trade, the familiar promise of soy resurfaced in new forms. Advocates again presented it as a crop capable of repairing soils, supplying protein, reducing oil import bills, and generating rural incomes.[166] Its nitrogen-fixing capacity aligned with soil health agendas, its protein density supported nutrition and feed narratives, and its scientific pedigree suggested rapid adaptability.

A new frontier discourse also emerged. From the early 2000s, concerns over food security, biofuels, and capital returns animated fresh cycles of land seeking and investment speculation. Development reports and academic papers reiterated long-standing claims about soy's high protein and oil content, agronomic versatility, and potential role in climate adaptation and South–South cooperation.[167] The rhetorical pattern was familiar: soy as a 'miracle crop,' Africa as a 'potential giant,' and Western experience as the model to emulate.[168]

Liberalisation and the reconfiguration of agrarian institutions

Although the pace varied across countries, the overall result was a thinning of public capacity in extension, credit provision, seed systems, marketing boards, parastatals, fertiliser subsidies,

163 Baraibar Norberg/Deutsch, Soybean, 167–171.

164 FAOSTAT Crops and Livestock Products, Production Quantity (Soya beans), World (Total), 1975 and 2024, Food and Agriculture Organization of the United Nations, https://www.fao.org/faostat/en/#data/QCL (16 February 2026).

165 Jan Douwe van der Ploeg, The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization, London/New York 2008.

166 Daniel Sisay, Soybean Production and Marketing in Ethiopia: Challenges and Opportunities, EIAR, Addis Ababa 2018.

167 Ninkuu/Han/Dakora, Development of the Soybean Industry; Siamabele, The Significance; Ali Zafar, The Growing Relationship Between China and Sub-Saharan Africa: Macroeconomic, Trade, Investment, and Aid Links, in: World Bank Research Observer 22 (2007), 103–130.

168 Capmad, Africa's Soybean Sector.

state farms, and price stabilisation.[169] As debt service absorbed a growing share of export revenues, these systems became fiscally difficult to sustain. Structural adjustment programmes introduced by the World Bank and IMF dismantled many of the existing institutions: Marketing boards were dissolved, input supply chains were privatised, currencies were devalued, and agricultural trade was liberalised.[170] The developmentalist state did not vanish, but it was disassembled unevenly as the political economy of African agriculture came to be shaped by debt-crisis management and global trade liberalisation.

For a crop such as soy, historically reliant on coordinated extension and public processing, yet marginal within the developmentalist era, this new environment was ambivalent. Smallholder adoption often stalled. At the same time, global demand continued to rise, and liberalisation encouraged agribusiness investment and the entry of multinational grain and oilseed traders.[171] As markets opened, value chain governance shifted toward private actors.[172] Commodity traders, processors, and feed companies increasingly organised soy markets. Quality and safety standards – particularly moisture levels and aflatoxin thresholds – governed access to higher-value segments. In some corridors, sustainability or deforestation risk standards appeared, reflecting pressure from international finance and buyers. Warehouse receipt systems, input credit tied to offtake, and forms of contract farming expanded in certain places as well, with uneven outcomes for smallholders.

The 2007–2008 food price crisis intensified these dynamics. Discourses of scarcity and global opportunity revived frontier narratives. Africa was once again cast as the world's last agricultural frontier, and large-scale land acquisitions were justified as necessary to close yield gaps through technology-driven intensification.[173] Simultaneously, the pendulum once more shifted away from pure faith in the markets: Post-Washington Consensus thinking encouraged a partial return of the state, now oriented toward public-private partnerships, value chain integration, and investor-friendly reforms rather than state-led production. Nigeria, Ghana, Zambia, Mozambique, and Ethiopia became focal points for initiatives seeking to integrate smallholders into procurement networks, strengthen seed systems, and unlock underutilised land.[174]

169 Ibid.

170 Carlos Oya, Agricultural Maladjustment in Africa: What Have We Learned after Two Decades of Liberalisation, in: Journal of Contemporary African Studies 25/2 (2007), 275–297, 278–279.

171 Khojely, History, 229.

172 McMichael, Food Regimes and Agrarian Questions, 122.

173 Rickard A. Sikora et al., Introduction, in: Rikard A. Sikora et al. (eds.), Transforming Agriculture in Southern Africa, London/New York 2020, 3–6.

174 New Master of Science Programme Educates African Students in Africa, in: Soybean Innovation Lab Weekly Digest 1/4 (4 December 2016), https://us10.campaign-archive.com/?u=94232d99724faa322d3fa5543&id=82ffe62db0 (16 February 2026); Tesfaye M. Abush et al., Genetic Variability in Soybean (Glycine max L.) for Low Soil Phosphorus Tolerance, in: Ethiopian Journal of Agricultural Science 27/2 (2017), 1–15; Daniel Muleta/M. H. Ryder/M. D. Denton, The Potential for Rhizobial Inoculation to Increase Soybean Grain Yields on Acid Soils in Ethiopia, in: Soil Science and Plant Nutrition 63/5 (2017), 441–451.

Research architectures and new development actors

IITA remained central to soybean research at the Pan-African level, although the focus had shifted towards shortened project cycles, market integration, and private sector partnerships. Breeding continued. In the 1990s, IITA developed promiscuous TGx soybean lines capable of nodulating with a wider range of native rhizobia, reducing the need for inoculants and making the crop more suitable for resource-constrained farmers.[175] These varieties were incorporated into intercropping systems in Nigeria and tested across Zambia, Malawi, and Ghana. Yet even where high-potential varieties were released, weak seed multiplication, inconsistent inoculation, limited fertiliser use, and fragmented markets kept national yields far below trial potential.[176] Along with the 'gene revolution,' however, IITA started with genome editing, using tools like CRISPR/Cas, which has enabled early-maturing and drought-resistant cultivars that have been performing well under dry agroclimatic conditions; Nigeria, South Africa, and Ghana have approved the cultivation of genetically modified soy.[177]

New actors also emerged. The Soybean Innovation Lab (SIL), established at the University of Illinois in 2013 with USAID funding, sought to build a technical foundation for soybean development across sub-Saharan Africa through a research-for-development (R4D) approach.[178] Working with national research systems, universities, development agencies, and private firms rather than directly with farmers, SIL has helped building up capacity across breeding, agronomy, mechanisation, processing, and training. Central to this effort was a networked model that combined certification-based training, peer-to-peer learning, and regional trial infrastructures aimed at reducing professional isolation and linking producers, seed companies, and processors to markets.[179] Together with IITA, the Syngenta Foundation for Sustainable Agriculture, and the African Agricultural Technology Foundation, SIL launched the Pan-African Soybean Variety Trials (PAT) in 2016. Starting in Malawi, the trials expanded to more than seventy locations across thirteen countries and evaluated soybean lines from Africa as well as from the United States, Brazil, Colombia, and Australia. By generating comparable, multi-location data to accelerate varietal release and commercialisation, SIL contributed to a renewed—if uneven—neo-developmentalist narrative in the 2010s. Ethiopia emerged as a prominent site within this framework, with the Jimma Agricultural Research Center developing into a continental reference point for soybean improvement.[180]

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175 Hailu Tefera, Breeding for Promiscuous Soybeans at IITA, in: Aleksandra Sudaric (ed.), Soybean – Molecular Aspects of Breeding, Rijeka 2011, 147–162; Khojely, History.

176 Siamabele, The Significance, 3–5.

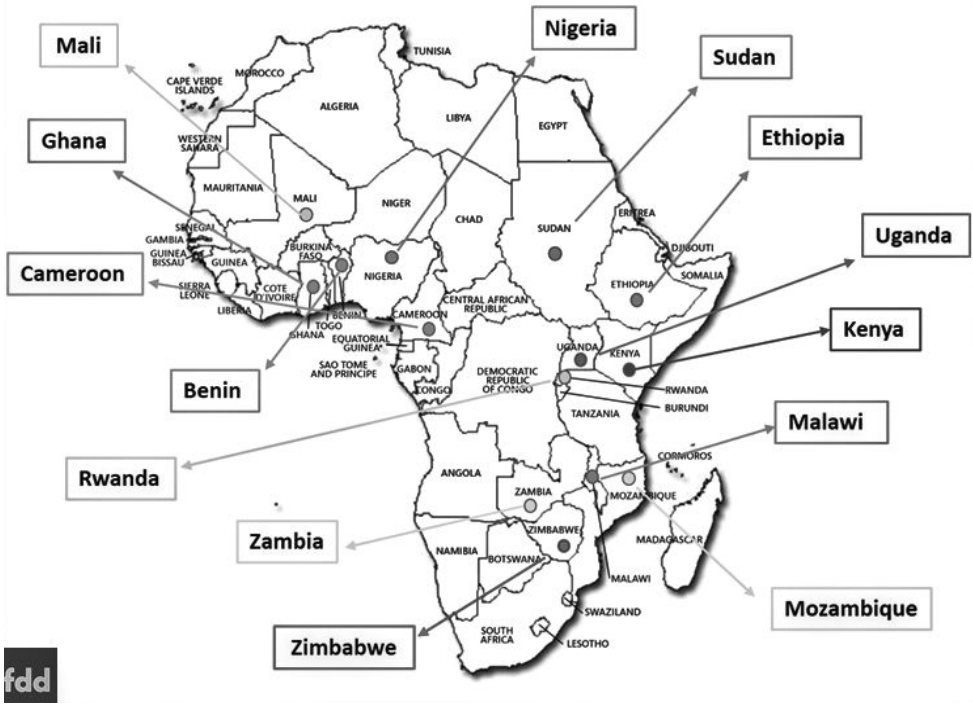
177 IITA, Soybean Crop Improvement, https://www.iita.org/research/our-research-themes/improving-crops/soybean-crop-improvement/ (10 February 2026); ISAAA, GM Approval Database, https://www.isaaa.org/gmapprovaldatabase/default.asp (10 February 2026).

178 Soybean Innovation Lab, https://www.soybeaninnovationlab.illinois.edu/ (13 January 2026).

179 SIL, Soybean Disease Watch for West Africa Weekly Newsletter, 1 October 2024, https://preview.mailerlite.io/preview/470190/emails/133537714752455932 (13 May 2026); SIL, Webinar on Early Detection and Effective Management of Soybean Rust: The Role of Sentinel Plots, Weekly Newsletter, 1 November 2024, https://preview.mailerlite.io/emails/webview/470190/136800189573760818 (13 May 2026).

180 Soybean Innovation Lab, Activities and Impact Report 2020, 1–40, https://soybeaninnovationlab.illinois.edu/2020report (14 May 2026).

Figure 5: African countries in which Pan-African Soybean Variety Trials were implemented



Source: Michelle Santos, The State of Soybean in Africa: Soybean Varieties in Sub-Saharan Africa, in: farmdoc daily 9, 21 August 2019, 155.

Figure 6: Soybean Innovation Lab closing

Source: WAND Digital Team, Closure of Illinois-led Soybean Lab due to USAID Funding Cut, in: 25News Now (10 February 2025), https://www.25newsnow.com/2025/02/10/closure-illinois-led-soybean-lab-due-usaid-funding-cut/ (14 May 2026).

Numerous advances notwithstanding, most countries still had very small teams dedicated to soy.[181] Moreover, progress depended heavily on external funding and coordination. This donor dependence translated into institutional fragility. On 27 February 2025, SIL received a termination notice from USAID as part of a broader contraction of U.S. foreign aid spending.

Following the withdrawal of USAID funding, SIL initially announced its closure and subsequently reduced its operations from thirty-one countries to four. Residual activities, including work in Malawi, continued through limited private funding but could not offset the loss of federal support. The episode underscored the vulnerability of Africa's soybean research ecosystem to geopolitical shifts and the structural limits of donor-dependent development models.[182]

Production, trade, and uses: Feed-driven demand and uneven outcomes

Africa's soybean production grew from roughly 600,000 tonnes in the early 1990s to nearly 7.5 million tonnes in 2023, before dropping back to ca. 5.76 million tonnes in 2024 due to drought.[183] As Figure 7 shows, the most significant acceleration occurred after 2010, when production outpaced area expansion.

This pattern reflects a combination of scale effects (more area) and rising average yields – from below 0.4 t/ha in the 1960s to over 1 t/ha in the 2000s.[184] Yields vary distinctly by country and production system, however: Egypt regularly achieves 2.9–3.2 t/ha, while Uganda and Togo remain below 1 t/ha. South African commercial farms frequently exceed 2.3 t/ha, reflecting higher levels of mechanisation, GM adoption, and stronger feed markets.[185]

Despite the significant growth in the region's soy production, the increase remains modest from a global perspective. South America's production rose from about 0.3 million tonnes in 1961 to more than 192 million tonnes in 2023, surpassing North America. Global output expanded from approximately 26.9 million to more than 371 million tonnes over the same period.[186] Africa's share nevertheless increased from 0.27 per cent in 1961 to about 2 per cent in 2023. This is a meaningful rise in regional terms, but still proportionally quite small in relation to the continent's demographic and land endowments: Africa accounts for roughly

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181 Wodimu Bekele/K. Belete/T. Tana, Effect of Soybean Varieties and Nitrogen Fertilizer Rates on Yield, Yield Components and Productivity of Associated Crops under Maize/Soybean Intercropping at Mechara, Eastern Ethiopia, in: Agriculture, Forestry and Fisheries 5/1 (2016), 1–7.

182 Miles MacClure, University of Illinois Soybean Lab Took a Big Hit from Trump Cuts: Here's What's at Stake, in: Chicago SunTimes (19 June 2025), https://chicago.suntimes.com/politics/2025/06/19/trump-cuts-soybean-innovation-lab-university-illinois-urbana-champaign-malawi-africa-agriculture-peter-goldsmith-usaid (10 January 2026); Soybean Innovation Lab Project to Expand Soybean Markets in Africa with New Grant, in: EurekAlert! (1 December 2025), https://www.eurekalert.org/news-releases/1108001 (14 May 2026).

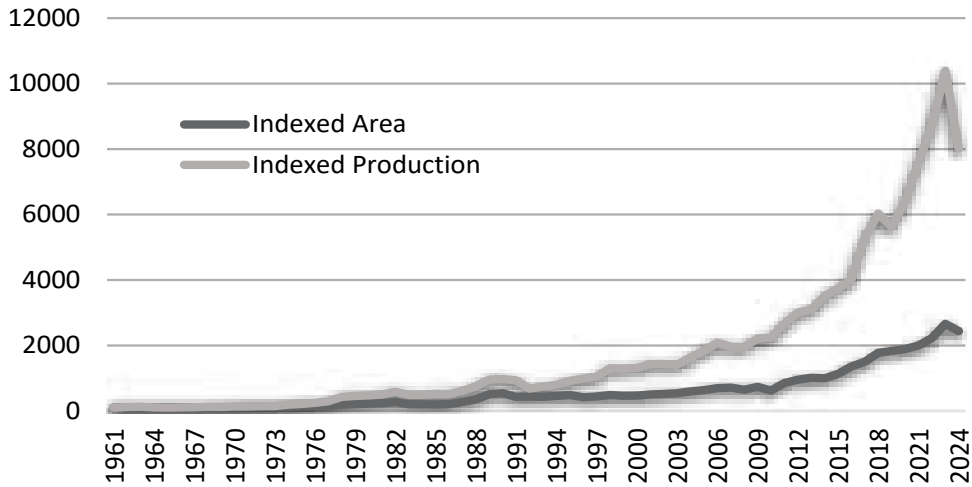
183 FAOSTAT, Crops and Livestock Products (Africa), https://www.fao.org/faostat/en/#data/QCL (10 January 2026).

184 FAOSTAT Crops and Livestock Products, https://www.fao.org/faostat/en/#data/QCL (16 February 2026).

185 FAOSTAT Crops and Livestock Products: Area Africa, Soya Beans, yields in kg/ha, hhttps://www.fao.org/faostat/en/#data/QCL (16 February 2026).

186 FAOSTAT, Soya Bean (UN Data), https://data.un.org/Data.aspx?d=FAO&f=itemCode%3A236 (14 January 2026).

Figure 7: Relative growth of soybean production and area in Africa (1961 = 100)



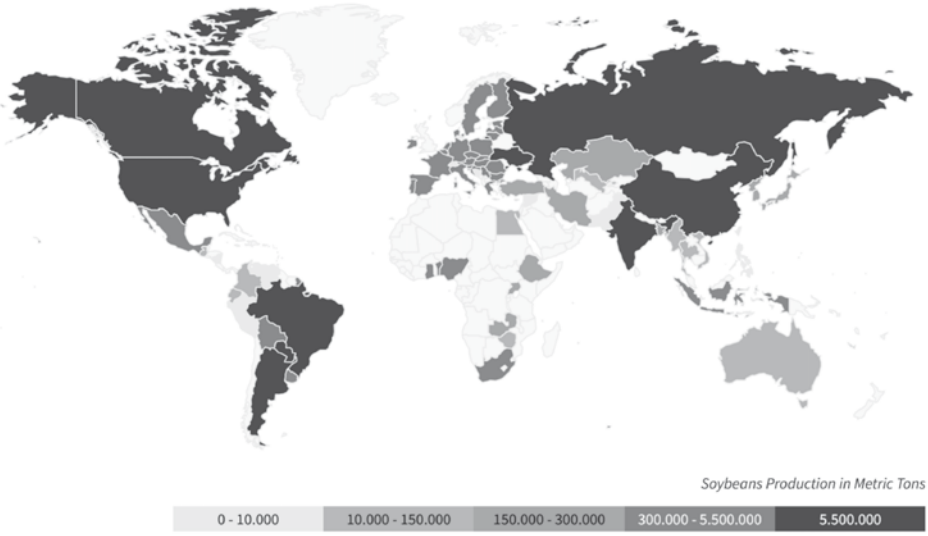
Source: Author's calculations based on data from FAOSTAT (Food and Agriculture Organization of the United Nations, Crops and livestock products), regional aggregate for Africa (10 January 2026).

Figure 8a: Top soybean producing countries by production volume and share of world production, 2025/2026 (1,000 metric tonnes)

Country	Value	% of World
Brazil	186,000 (1000 MT)	42.14 %
United States	120,701 (1000 MT)	27.35 %
Argentina	50,000 (1000 MT)	11.33 %
China	21,000 (1000 MT)	4.76 %
India	11,500 (1000 MT)	2.61 %
Paraguay	11,100 (1000 MT)	2.52 %
Russia	8,800 (1000 MT)	1.99 %
Canada	7,300 (1000 MT)	1.65 %
Ukraine	5,600 (1000 MT)	1.27 %
Bolivia	4,000 (1000 MT)	0.91 %
Uruguay	3,100 (1000 MT)	0.7 %
European Union	3,000 (1000 MT)	0.68 %
South Africa	2,800 (1000 MT)	0.63 %
Nigeria	1,500 (1000 MT)	0.34 %
Benin	700 (1000 MT)	0.16 %

Source: U.S. Department of Agriculture, Foreign Agricultural Service (USDA FAS), Production, Supply and Distribution (PSD) Online, Oilseed/Soybean, Production, 2026/2027 (public domain), https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery (30 June 2026).

Figure 8b: Map of World Soybean Production 2025/2026



Source: U.S. Department of Agriculture, Foreign Agricultural Service (FAS), Production Data for Soybeans (public domain). Available at: https://www.fas.usda.gov/data/production/commodity/2222000 (15 January 2026).

20.3 per cent of the world's land area and about 18–19 per cent of the global population.[187] From the vantage point of the historical trajectory of Africa itself, however, it is clear that soy under the third regime constitutes a clear break with the previous two, with the crop well and truly taking off.

Country paths diverged markedly. South Africa has become Africa's largest soybean producer: Its output rose from approximately 84,000 tonnes in 1987 to around 1.32 million tonnes in 2016, reaching a record of almost 2.8 million tonnes in 2025/26 and accounting for more than one-third of the continent's production that year.[188] However, annual production fluctuates considerably, ranging from 1.9 million tonnes in 2021 to 2.3 million in 2022, 2.8 million in 2023 and 1.8 million in 2024. Over the past decade, the planted area has more than doubled. The vast majority of the crop is crushed for oil and meal and absorbed by a vertically integrating poultry industry, with only a small share – around 2 per cent – destined for direct human consumption. This feed–soy nexus was further reinforced by anti-dumping measures on imported poultry, which strengthened incentives for domestic feed availability.[189]

187 Africa (Encyclopaedia Britannica).

188 FAOSTAT, Crops and Livestock Products, https://www.fao.org/faostat/en/#data/QCL (16 February 2026). U.S. Department of Agriculture, Foreign Agricultural Service (USDA FAS), Production, Supply and Distribution (PSD) Online, Oilseed/Soybean, Production, 2026/2027 (public domain), https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery (30 June 2026).

189 Ibid.; Makoma Makgopa/Amy Caldwell, Poultry and Products Annual, Report Number SF2023-0028, FAS/USDA, 12 September 2023, https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?file

Figure 9: Major African soybean producing countries, 1981–2024 (thousand tonnes)

	1981	1991	2001	2011	2021	2024
South Africa	27.6	126.0	226.2	710.0	1,897.0	1,848.0
Nigeria	78.0	145.0	436.0	492.9	1,166.1	1,150.0
Benin	-	0.4	3.5	67.2	291.3	652.5
Malawi	-	-	-	75.7	264.5	305.0
Togo	-	-	-	4.4	207.6	284.3
Ghana	-	-	-	164.5	218.0	260.0
Ethiopia	-	-	4.4	49.6	271.1	240.0
Zambia	3.7	27.7	2.4	116.5	411.1	169.7
Uganda	5.0	59.0	144.0	31.8	138.0	155.0
Burkina Faso	-	0.5	3.8	23.1	106.7	138.1
Egypt	130.4	120.0	14.9	29.8	62.6	75.0
Tanzania	1.1	2.1	0.9	2.5	75.0	42.7

Source: FAOSTAT, Crops and livestock products, selected countries, Production quantity, soya bean, selected years (10 January 2026).

Nigeria, a leading producer during the developmentalist period, has maintained a steady trajectory. Uganda has also expanded production but from a low base. In both cases, policies favouring domestic food processing, improved varietal adaptation across agroclimatic zones, culinary incorporation into selected foods, and the willingness of manufacturers to use soy in baby foods, oils and feeds supported growth and continued smallholder participation.[190] Development projects have repeatedly promoted soy as both a cash crop and an affordable source of protein.[191] Yet yield constraints persist: Average on-farm yields in Nigeria often hover around 1.0–1.2 t/ha, and in Uganda around 0.6–0.9 t/ha.[192] Access to high-yielding seed with robust disease packages remains a common bottleneck, as do inoculation practices and reliable input delivery.[193]

Egypt showed an early peak in the 1980s (130,360 tonnes in 1981), but lower levels thereafter despite consistently high yields, reflecting a strategy centred on imports for crushing. By contrast, Benin forms part of a post-2010 "new growth belt" alongside Ghana, Togo, Malawi, Burkina Faso, Zambia, and Ethiopia. Benin's expansion is one of the fastest in recent years: Negligible before the 1990s, production rose sharply to over 650,000 tonnes in 2024, much of it exported to Nigeria as farmers diversified away from weakening cotton prices.[194] This growth was achieved largely through smallholder area increases rather than estate produc-

Name=Poultry%20and%20Products%20Annual_Pretoria_South%20Africa%20-%20Republic%20of_SF2023-0028.pdf (16 February 2026).

190 Mary Agada, Constraints to Increasing Soybean Production and Productivity in Benue State, Nigeria, in: Asian Journal of Agricultural Extension, Economics & Sociology 4/4 (2014), 277–284; Shurtleff/Aoyagi, History of Soy in Africa, 1120–1131.

191 Soybean Innovation Lab Newsletter (2018), in: Shurtleff/Aoyagi, Soybeans and Soyfoods in Africa, 1127.

192 FAOSTAT, Crops and Livestock Products, Soya Beans, Yields in kg/ha, Nigeria and Uganda, Specific Years, https://www.fao.org/faostat/en/#data/QCL (16 February 2026).

193 D. S. Ugwu/H. C. Ugwu, Soybean Production, Processing and Marketing in Nigeria, in: Journal of Applied Sciences and Development 1/1 (2010), 45–61.

194 FAOSTAT, Crops and Livestock Products, Soya Beans, https://www.fao.org/faostat/en/#data/QCL (16 February 2026).

tion, thereby embedding soy in existing agrarian structures and limiting political backlash. In several of these 'new growth' countries, soy has been integrated into broader agricultural development strategies aimed at smallholder commercialisation within diversified crop systems, with processors and feed manufacturers providing a rising market pull.[195]

Across the region, feed demand has been a principal driver. Urbanisation and rising incomes have expanded the poultry and dairy sectors in countries such as Nigeria, South Africa, Zambia, Benin, and Egypt. Soybean meal became central to poultry rations, and crushing grew where scale and infrastructure permitted. At the same time, agronomists and extension agents increasingly emphasised the soil benefits of soy, particularly biological nitrogen fixation that can improve subsequent cereal yields. Soy has therefore been promoted as a cash crop for feed markets, as a food ingredient, and as a contributor to soil fertility.[196] Yet the predominance of very small plots for many farmers limits economies of scale, constrains the use of yield-enhancing inputs, and weakens incentives for investment in processing.

Climatic shocks continue to expose vulnerabilities as well. Climate change is already affecting harvests through prolonged droughts and heat stress.[197] In 2024, an El Niño-linked drought dramatically reduced maize and oilseed yields across Southern Africa, with soybean output falling in several countries. With most production rainfed, rainfall variability translated into yield risk, higher food prices, and pressure on foreign exchange. Zambia, Zimbabwe, and South Africa experienced significant reductions (on average, around a quarter lower than prior seasons). In most countries of the sub-region, production is concentrated among communal smallholders, who are more exposed to weather and market shocks. In this setting, emergency imports of maize and soybeans have periodically been required to stabilise food and feed supplies. USDA facilitated import of 300,000 tonnes of corn and 165,000 tonnes of soybeans from the U.S. between May 2024 and April 2025, for a total value of USD 140 million, the highest value in the past 30 years.[198]

As in previous regimes, there are many optimistic projections about future export surpluses waiting just around the corner. The business press periodically announces a looming transformation: "Soybeans are becoming a flagship product of African exports".[199] Despite production gains, demand has outpaced supply, and trade deficits have persisted. Africa has

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195 Z. Kahenge/K. Muendo/N. Nhamo, Factors Influencing Crop Commercialization among Soybeans Smallholder Farmers in Chipata District, Eastern Zambia, in: Journal of Agriculture, Science and Technology 19/1 (2019), 3–31; Sisay, Soybean Production.

196 Francis Akabo Asodina et al., Are Non-Market Benefits of Soybean Production Significant? An Extended Economic Analysis of Smallholder Soybean Farming in Upper West Region of Northern Ghana, in: Agriculture & Food Security 9/1 (2020), 1–13, 13.

197 Confidence Duku et al., Soybean Uganda: Climate Change Risks and Opportunities, Wageningen 2019.

198 FAS/USDA, Southern Africa Shortages Boost United States Corn and Soybean Exports Benefiting American Farmers, Report Number SF2025-0019, 27 June 2025, https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Southern%20Africa%20Shortages%20Boost%20United%20States%20Corn%20and%20Soybean%20Exports%20Benefiting%20American%20Farmers_Pretoria_South%20Africa%20-%20Republic%20of_SF2025-0019.pdf (13 January 2026); Dave Nyongesa et al., The Economics and Gender Factor in Soya Bean Production and Profitability in Kenya: A Case of Smallholder Farms in Western Kenya, in: International Journal of Agricultural Resources, Governance and Ecology 13/3 (2017), 211–240.

199 Capmad, Africa's Soybean Sector.

consistently imported more soybeans and soy products than it exported.[200] In 1998, the continent imported about 786,000 tonnes of soy oil and exported roughly 3,000 tonnes; by 2023, imports had grown to around 1.86 million tonnes and exports to about 221,000 tonnes. For whole beans, imports rose from roughly 427,000 tonnes in 1998 to about 5.94 million tonnes in 2023, while exports rose to approximately 767,000 tonnes.[201]

In 2022, Africa's total soy trade was valued at roughly 5.9 billion U.S. dollars, with African exports accounting for about one-fifth of the total.[202] Egypt stands out for the growth of domestic crushing alongside continued bean imports, functioning as a regional processing hub.[203] Elsewhere, processors frequently operate with overcapacity relative to local bean supply and import substantial volumes of soybeans to keep plants running. Using a soybean-equivalent measure (oil, meal, and beans), the continent imported the equivalent of roughly 21 million tonnes a year between 2010 and 2022 – comparable to around six million hectares of soybean production. If palm oil is included, the broader edible oil deficit more than doubles.[204]

In short, if there is a soybean 'revolution' in Africa, it lies more in demand (especially for soy meal in feed) than in the continent becoming a net supplier to world markets, as imagined in earlier regimes. This demand did not appear spontaneously: The promotion of soy for feed and fortified foods goes back to the developmentalist era and was later recast through new institutional vehicles. In the 2000s, for example, the ASA established the World Initiative for Soy in Human Health (WISHH) to promote growth across the "protein market space" in Africa through programmes ranging from bakery applications to school feeding and poultry development projects, typically in concert with public agencies and private partners.[205] At the same time, U.S. food aid architectures such as the Food for Peace programme have continued to send hundreds of thousands of tonnes of soybean meal and other soy products to African countries every year, often in cooperation with the World Food Programme.[206] The FAS of USDA is also involved in numerous activities and programmes across the continent to showcase the versatility and high quality of agricultural products from the United States.[207]

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200 Africa's Agri-Trade Deficit Persists as Only Five Countries Export More Than They Import, in: Ecofin Agency, https://www.ecofinagency.com/news-agriculture/2401-52237-africa-s-agri-trade-deficit-persists-as-only-five-countries-export-more-than-they-import (13 January 2026).

201 FAOSTAT, https://www.fao.org/faostat/en/#data/QC (16 February 2026).

202 Tralac, Soya Bean Value Chain Factsheet (2023), https://www.tralac.org/documents/resources/infographics/4780-soya-bean-value-chain-factsheet-2023/file.html (1 December 2025).

203 FAS/USDA, FAIRS Country Report Annual, Egypt, Report Number EG2025-0025 (19 December 2025), https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=FAIRS%20Country%20Report%20Annual_Cairo_Egypt_EG2025-0025.pdf (24 February 2026); FAS/USDA, U.S. Trade with Egypt in 2025, https://www.fas.usda.gov/regions/egypt (24 February 2026); FAS/USDA, Exporter Guide – Cameroon, Report Number NI2025-0001 (27 January 2025), https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Exporter%20Guide%20-%20Cameroon_Lagos_Cameroon_NI2025-0001.pdf (24 February 2026).

204 FAOSTAT, https://www.fao.org/faostat/en/#data/QC (24 February 2026).

205 Why WISHH, https://www.wishh.org/why-wishh (24 February 2026).

206 USDA, Food for Progress Report, Fiscal Year 2024, https://www.fas.usda.gov/sites/default/files/2025-12/FY24%20FFPr%20Report.pdf (20 February 2026).

207 FAS/USDA, Ghana – "Chicken Me Out" (USAPEEC Training/Competition), GH2025-0030 (31 July 2025), https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=GHANA+-+Chicken+Me+Out+-+USA+Poultry+and+Egg+Export+Council+-USAPEEC-+Stellar+Training+Progra

Soy is accordingly most widely consumed indirectly: as oil in urban markets and as meal used for poultry and livestock products. Over time, processors expanded their capacity, and by 2002, the industry had transitioned from an under-capacity position to overcapacity, with processing capacity exceeding available local soybean supplies. This resulted in significant acceleration in the imports of soybean grain. Recently, processors have been operating at 40–60 per cent overcapacity relative to domestic supply, importing around 5.4 million tonnes of soybeans annually to keep their factories operating.[208] Human food uses have developed more selectively. Textured vegetable protein and fortified cereal blends entered school feeding and low-cost retail channels, often under private ownership and donor procurement rather than via state-led distribution.

Analytical reflection: Soy and the third food regime

In the neoliberal era of liberalised trade and consolidated global value chains, soy has been reframed as a flexible frontier commodity. It is deployed not only as a crop but as an instrument for development and diplomacy – covering edible oil deficits, feeding expanding poultry and dairy sectors, and entering processed foods. Where soy has embedded materially, it has done so most consistently through feed complexes and crushing networks, notwithstanding the relatively widespread adoption of soy as a smallholder food crop. Soy's presence in African food systems has thus expanded more in the shape of oil, meal, and processed ingredients than as a farmer staple.

Continuities with earlier periods are clear. The gap between station and farm persists; breeding advances often outpace seed multiplication and extension; and scaling is most visible where processor demand is assured. What has changed is the architecture: from state-led development to contract- and finance-mediated value chains in which private standards, trader finance, and donor projects set the terms of participation. United States influence has continued through food aid shipments, commercial promotion, and technical training, although the development landscape has shifted. The termination of SIL in 2025 highlighted the fragility of donor-dependent research systems. Moreover, while the U.S. has shown a clear interest in creating markets for its soy since the beginning of the second regime, the Trump administration has made it even more explicit that U.S. food aid must deliver in line with "America First International Food Assistance"; this includes the stipulation that food aid should "benefit American farmers and producers and help people in need around the world in a way that respects hardworking American taxpayers."[209]

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m+and+Cooking+Competition_Accra_Ghana_GH2025-0030.pdf&utm_source=chatgpt.com (23 February 2026).

208 Should U.S. Growers Look to Africa as the Next Big Market? Understanding Africa's Soy Import Demand, in: Succesful Farming (20 November 2025), https://www.agriculture.com/partners-should-u-s-growers-look-to-africa-as-the-next-big-market-understanding-africa-s-soy-import-demand-11853436 (23 February 2026).

209 USDA to Purchase 211,000 Metric Tons of American Commodities, Administer Food for Peace Program as America First International Food Assistance, in: FAS/USDA (3 February 2026), https://www.fas.usda.gov/newsroom/usda-purchase-211000-metric-tons-american-commodities-administer-food-peace-program# (9 February 2026).

At the same time, China's role has expanded by way of the Forum on China-Africa Cooperation and bilateral science partnerships, positioning soy as a strategic crop in diversified sourcing strategies and joint research agendas. Motivated by food security concerns and trade frictions, China has explored diversified soybean sourcing and technical collaboration, including germplasm exchange and joint research – once again reviving the narrative of Africa as underutilised potential and soy as the unlocking mechanism.[210] Several African governments have expressed hopes that new agreements could transform export prospects to China, although such aspirations remain contingent on infrastructure, quality standards, and reliable volumes.[211]

Overall, the regime's outcomes align with the article's central claim. Circulation has tended to outpace cultivation, and the projection–production gap remains visible. The corporate era has deepened soy's presence in African food systems primarily as oil, meal, and processed ingredients, while persistent structural constraints continue to limit broad-based on-farm transformation.

Concluding remarks

Across 150 years of interventions, soybeans have featured not simply as a crop but as a recurring site of projection. From the late nineteenth century to the present, officials, scientists, development planners and corporate actors have projected a wide range of hopes onto soy: hopes for soil improvement, nutritional uplift, industrial development, foreign exchange savings – and recently, climate-smart intensification. These visions have been remarkably persistent even as the institutional settings in which they are articulated (imperial science, Cold War developmentalism, and neoliberal value chain integration) have shifted profoundly.

A central finding of this study is that Africa's marginal position within global soybean production cannot be understood solely through agronomic constraints or market failures. Rather, its history reflects a recurring pattern in which future-oriented imaginaries outpace material outcomes. Each regime mobilised soy in ways that mirrored its governing logics: colonial administrations cast the crop as a symbol of scientific modernity and imperial improvement; postwar states and international agencies framed it as a nutritional and geopolitical instrument within architectures of aid; and neoliberal actors have treated it as a flexible frontier commodity suited to liberalised markets and expanding feed complexes. Yet across all periods, the gap between projection and production has proved resilient.

This persistence is not accidental. The soybean has repeatedly functioned as a conceptual technology of development: a crop through which broader aspirations for agricultural modernisation, dietary reform, and economic transformation are articulated. Its appeal lay in its versatility and the ease with which it could be folded into prevailing models of improvement (whether scientific agronomy, Green Revolution planning, or contemporary narratives of

210 China Implements Historic Zero Tariffs for All African Nations with Diplomatic Ties, in: gov.cn (1 May 2026), https://english.www.gov.cn/policies/policywatch/202605/01/content_WS69f45e35c6d00ca5f9a0ac01.html (14 May 2026).

211 Joseph Rajabu Kangile et al., Soybeans Imports Replacement Policies in Tanzania. Feasibility and the Anticipated Effects on People and Nature, UKRI GCRF Trade, Development and the Environment Hub, 2021.

climate resilience and protein demand). In this sense, the soybean's African history illuminates how agrarian imaginaries operate across regimes: not simply as rhetorical flourishes but as tools that legitimise interventions, organise research priorities, and sustain visions of incorporation even when results remain modest.

At the same time, the comparison across regimes reveals important differences. Colonial experimentation relied on trial plots and imperial networks; the developmentalist regime assembled research, extension, and food aid infrastructures that scaled the circulation of processed soy more than its cultivation; the corporate regime embedded soy most firmly in feed and crushing complexes for poultry and dairy. These shifts underline how material uptake has been most pronounced where institutional coordination, market pull, and processing capacity have aligned. Where they were absent – especially among smallholder farmers with limited access to seed, credit, inoculants, and assured buyers – soy remained peripheral.

The article also highlights how Africa's role within the global soy complex has been shaped by geopolitical interests and external agendas: from the use of soy in colonial nutrition schemes through its centrality in U.S. food aid programming to the emergence of new Chinese partnerships. These dynamics have sustained Africa's symbolic importance as a 'latent frontier' even as large-scale production has lagged behind projections.

In the present corporate food regime, soy continues to attract new waves of expectation. Its association with climate-smart agriculture, its role in feed markets, and its relevance for edible oil deficits all ensure that it remains at the centre of policy and investment debates. Yet the historical record suggests caution: The structural conditions that limited adoption in earlier periods (fragmented seed systems, labour constraints, climatic risk, uneven processing infrastructure, and the persistence of very small farm sizes) remain largely intact. Without changes in these underlying conditions, new projections risk reproducing familiar cycles in which soy functions more as a screen for developmental ambition than as a transformative crop.

By placing Africa's soybean history within a broader global and regime-based perspective, this article contributes to a more nuanced understanding of how agricultural futures are imagined and pursued. It suggests that regimes are sustained not only through realised commodity flows but also through anticipatory narratives that stabilise expectations and guide intervention even when outcomes disappoint. Soybeans have been unusually potent in this regard. They offer a lens through which to examine the entanglement of science, development, and geopolitics as well as to understand how agricultural imaginaries travel, sediment, and recur across time.

Ultimately, the history of soy in Africa underscores the need to interrogate not only what crops do, but what they are *imagined* to do. It is in the tension between these registers (projection and agrarian reality) that the longue durée patterns of intervention, aspiration and constraint become most visible. Whether emerging regional markets, continental trade initiatives or climate pressures will finally shift soy's position remains uncertain. What is clear is that the narratives surrounding soy have endured far more robustly than its material footprint, reminding us that the histories of crops are also histories of the worlds they are called upon to transform.