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Esg Integration And Sustainability In African Agribusiness: A Review Of Challenges, Practices And Impacts

Prosper Mutswiri[a]

[a]ZESA National Training College

Abstract

Environmental, social, and governance (ESG) integration and sustainability have become critical issues for African agribusinesses to address in recent years. However, the specific practices, challenges, and impacts in the African context remain less explored. This systematic review paper aimed to analyze the current literature on ESG and sustainability issues within African agribusiness. A total of 41 articles published between 2017 and 2024 were reviewed based on inclusion/exclusion criteria. Key findings indicate that ESG integration can enhance productivity, food security, rural livelihoods, and long-term resilience but continues facing economic, infrastructural and regulatory barriers. Environmental practices like sustainable farming, social efforts on farmer welfare and gender equality along with governance mechanisms for transparency were identified. Though ESG integration showed positive economic, social and environmental impacts, persistent challenges need tailored strategies. An integrative framework is proposed for ESG implementation based on the review. Further studies can explore specific solutions and cases to aid policymaking.

Key Words: ESG, sustainability, Africa, agribusiness, practices, challenges, impacts

CONTACT: Prosper Mutswiri pmutswiri@zesaholdings.co.zw

Introduction

Background on ESG and Sustainability in Agribusiness

Incorporating principles of environmental stewardship, social responsibility and ethical corporate governance (ESG) has become a priority for agribusinesses globally amidst rising sustainability concerns (Filippi & D'Angelo, 2022). ESG integration can enable firms to increase productivity, ensure food security for communities, safeguard ecological resources and build long-term resilience to shocks by addressing stakeholders' economic and ethical needs (St-Hilaire, 2022; Babu & Shishodia, 2017). In Africa, over 60% economic activity and 70% employment occurs in climate-sensitive agriculture and informal sectors, heightening sustainability needs and risks from issues like food insecurity, rural poverty and environmental degradation (Akuriba et al., 2021). Smallholder farmers dominate the continent's agribusiness landscape facing productivity challenges and market constraints, though contract farming linkages with agribusiness firms have increased opportunities in high-value crops, livestock and horticulture (Ochieng et al., 2019; MFUYWA, 2021). Sustainability practices can thus allow African agribusinesses to uplift vulnerable farmers through secure livelihoods and inclusive growth (Schelle & Pokorny, 2021). Regional trends also indicate a policy push towards responsible investment and ESG mandates for agribusinesses, especially from development finance institutions aiming to achieve Sustainable Development Goals (SDGs) in Africa (Ojukwu, 2018). However, legislative, infrastructural, and socioeconomic obstacles cause adoption rates to fluctuate (Mohamed & Montmasson-Clair, 2018). Understanding obstacles, practices, and implications can help African agriculture value chains achieve sustainability.

Importance of ESG Integration in African Agribusiness

ESG considerations can future-proof African agribusinesses against emerging sustainability risks and capitalise on shared value creation while satisfying their ethical commitments to society (Annosi et al., 2022). Environmental activities like eco-friendly production can reduce deforestation and land degradation and protect regional biodiversity and ecosystem services for the industry (Feszterová et al., 2021). This supports social development by investing in smallholder skills, market access, and gender participation to strengthen rural livelihoods and reduce poverty and food insecurity (Yami et al., 2019). Digital traceability and certification programs promote transparent governance, which increases consumer confidence and access to responsible financing and

premium export markets (Franklin & Oehmke, 2019). Sustainability rules and incentives for agribusinesses can help African countries meet climate, nutrition, and inclusive growth goals under the SDGs and Africa Agenda 2063 (Babikir, 2021). Regional governments are also implementing ESG criteria into trade agreements and preferential tariffs to boost sustainable production (Xu et al., 2025). ESG variables help agribusiness investors and lenders manage risk by identifying weaknesses across complex value chains in Africa's challenging circumstances (Imbiri et al., 2021).

Objectives of the Review

The overarching goal of this systematic literature review was to critically analyze ESG and sustainability issues within African agribusiness including:

- Defining ESG integration and examining its importance in the African context
- Identifying key sustainability practices adopted for environmental, social and governance aspects
- Reviewing particular challenges faced in ESG implementation
- Assessing reported economic, social and ecological impacts
- Proposing an integrative framework for ESG in African agribusiness based on evidence g*aps and future research needs*

Methodology

2.1. Research Design: Systematic Review Approach

A comprehensive, transparent, and reproducible systematic review was used to locate, appraise, and synthesise all relevant studies on the stated research objectives (Barn et al., 2017). This evidence-based strategy decreases selection biases in literature reviews and provides exhaustive subject insights (Linnenluecke et al., 2019). Systematic analyses also indicate knowledge gaps aiding further primary research (Suri, 2019). For reviews in agricultural sciences like the present paper, approaches balancing feasibility with breadth and depth are recommended identifying keyword search criteria and analysis techniques aligned to objectives (Koutsos et al., 2019).

Inclusion and Exclusion Criteria for Studies

Peer-reviewed articles published over 2017-2024 in English language were considered given the emerging priority on ESG issues. Both conceptual and empirical studies across model types (e.g. qualitative, quantitative, mixed methods) were included—structured around the African agribusiness context.

This comprised food and commodity crop farming, livestock production, aquaculture, agro-processing sectors along with associated input/technology provision, distribution, retail and export firms operating in Africa. All farm sizes were considered from small landholdings to large plantations under corporate or cooperative institutional structures. Studies beyond Africa or lacking an explicit agribusiness focus were excluded during screening.

Data Sources and Search Strategy

The search encompassed multidisciplinary scholarly databases – Scopus, Web of Science, ScienceDirect, Wiley and SpringerLink. Keyword combinations around "ESG/sustainability AND Africa AND agribusiness" were inputted into advanced searches within metadata fields for article title/keywords/abstracts. Secondary searches also used derivatives like "environment/social/governance", "country names" and "agriculture/ farming". References meeting the applied filters were exported to Mendeley reference manager and duplication removal via Bramer et al.'s (2019) protocol left 41 articles for final review.

Data Extraction and Analysis Methods

A two-stage narrative synthesis approach was applied for extracted data per guidelines from Popay et al. (2006). Initial description involved a preliminary synthesis collating key textual contents from articles around the review objectives and themes identified a priori based on the research questions and background literature. This allowed analyzing common ESG definitions, practices, challenges, impacts and overall findings across the sample. Secondly, an exploratory stage examined relationships between emerging categories to propose an integrative framework for ESG implementation in African agribusiness context appropriate to observed gaps and future research needs.

Esg Integration In African Agribusiness

Definition and Importance of ESG Integration

ESG integration refers to the incorporation of environmental, social equity and corporate governance considerations into business policies, practices and decisions to manage risks and harness opportunities contributing to sustainable development (Montmasson-Clair, 2018). The aim is balancing financial priorities with ethical obligations to society and the planet over long-term horizons (Ioris, 2018). Globally, ESG factors are gaining prominence as yardsticks for responsible investment and production. Many agribusinesses

now face regulatory, competitive and societal pressures to report against ESG indicators and pursue certifications around sustainability performance on benchmarks like greenhouse gas emissions, water use, smallholder inclusion or supply chain transparency (Xu et al., 2025; Fuller & Grebitus, 2023). African countries also exhibit rising momentum on sustainability policies to safeguard food security and ecological resources amidst climate risks—though adoption challenges remain around limited capabilities and socioeconomic barriers (Ogunmodede et al., 2020; Khapayi et al., 2018).

Overview of ESG in the African Agribusiness Context

African agriculture employs close to 60% of the workforce making sustainability vital for livelihoods and poverty alleviation, especially where youth unemployment averages 35% in the continent (Yami et al., 2019). However, average crop yields remain lowest globally while underdeveloped output markets, financial services and erratic infrastructure compound smallholder risks (Babu & Shishodia, 2017). Contract farming and inclusive business models are thus emerging across cash crops like cocoa, cotton, tea; staples including maize, rice; and horticulture exports as large agribusiness firms seek to raise productivity amidst land constraints while also securing consistent supply (Ochieng et al., 2019). ESG integration can allow environmentally sustainable intensification meeting demand from Africa's fast growing urban consumer markets while enabling vulnerable farmers' access to inputs, technologies and premium value chains improving livelihood security (Akuriba et al., 2021). In many countries, smallholder development programs are linked to pyramidal processor and retail networks to capture added value and reduce rural poverty as they progress along agricultural commercialisation pathways (Sinyolo et al., 2019). Regional trends include rising sustainability legislation and incentives for equitable pricing, product miles, and deforestation-free sourcing (Annosi et al., 2022).

Key Drivers for ESG Integration

According to the examined literature, several interconnected variables are driving ESG integration and sustainability in African agribusiness. The rapidly growing middle class and urbanisation in Africa are changing consumer diets to include more processed and packaged foods and protein (Bahn & Abebe, 2019). Younger consumers are also interested in organic products and evaluating health, ethics, and carbon footprint claims before buying (Nian et al., 2023). These trends provide

premium domestic and foreign markets for sustainable agriculture. Multinational firms' ambitious carbon neutrality targets throughout worldwide value chains and impact investors' preference for sustainable enterprises are also becoming competitive factors (Filho & Oliveira, 2024). African agribusinesses must improve transparency and adopt environmental and social protections to get green funding. New technologies like blockchain, digital advisory services, and remote sensing enable better monitoring of sustainability metrics in smallholder networks, including soil health, yield gaps, and pesticide usage (Puška et al., 2023). To meet continental commitments like the Africa Agenda 2063 and Malabo Declaration (2014) to transform agriculture and provide food security by 2025, governments have prioritised policy and regulatory measures and incorporated ESG criteria into legal frameworks. As further prompts, development agencies increasingly require sectoral aid, loan access, and favourable trade conditions to meet sustainability requirements.

Sustainability Practices In African Agribusiness

Sustainability Initiatives in African Agribusiness

South Africa exhibits leadership on voluntary benchmarks like the Johannesburg Stock Exchange's Socially Responsible Investment Index, though countries including Kenya, Nigeria, Ghana and Egypt are also adopting reporting frameworks to open export channels and tap impact funds (Metoyer, 2023). Leading corporates have piloted integrated 'triple bottom line' accounting covering environmental externalities with monitored action plans e.g. upstream water balances by brewers like Diageo, or smallholder livelihood programs under processors like Export Trading Group (Yami et al., 2019; St-Hilaire et al., 2022). Public-private partnerships also showcase sustainable production and youth livelihood models, exemplified by Nigeria's government-backed N-Power Agro scheme providing finance, training and extension support to young contract growers in rice, sorghum, soy, cassava, poultry and aquaculture. Early assessments indicate significant boosts in participant incomes, food output and self-employment driven by the integrated capacity building (Ogunmodede et al., 2020). Development agencies including the African Development Bank equally stress on environmental and social safeguards in lending programs for catalyzing sustainable agribusiness growth under country investment plans, though efficacy assessments are still nascent (Ojukwu, 2018).

Environmental Sustainability Practices

Priority areas like soil conservation, water efficiency, clean energy transitions and biodiversity protection are targeted through practices including laser land leveling, irrigation scheduling, precision agriculture, integrated pest management (IPM), agroforestry, conservation agriculture with documented yield and ecological gains (Feszterová et al., 2021). Investments into resource recycling via byproducts use e.g. renewable energy generation from sugarcane waste represent emerging examples from South Africa and Mauritius with spillover benefits like avoided carbon emissions and rural electrification (Yami et al., 2019). Voluntary standards also apply among export-oriented producers e.g. GlobalGAP protocols adopted by nearly 50% of Kenya's fresh produce farms enabling access to European markets; while leading beverage company SABMiller piloted water efficiency partnerships across barley, maize and sorghum cultivation in Tanzania, Uganda, Zambia and Mozambique (Schelle & Pokorny, 2021). South Africa further mandates industry waste management plans e.g. for pesticide containers under its 2008 National Environmental Management Act, while Ghana's Cocoa Sustainability Program integrates reforestation protocols (Franklin & Oehmke, 2019). Exemplars imply gradual sustainability changes notwithstanding country and firm capacity adoption rates. As laws tighten, it is crucial to benchmark and improve environmental performance to maintain access to competitive export markets.

Social Sustainability Practices

The assessed programs promote gender justice, poverty reduction, and farmer livelihood security, following the African development strategy for inclusive agricultural growth. These projects focus on smallholders, who own 80% of regional farms (Akuriba et al., 2021). The Africa Cocoa Initiative, which includes Mondelez, Nestle, Mars, and Hershey's, shows how multi-stakeholder sustainable sourcing initiatives are growing as agribusinesses capitalise on global value chains (Franklin & Oehmke, 2019). These efforts enable private investments in farmer education programs to improve smallholder quality, welfare, and yields. They also highlight youth participation and gender equality in reflecting national action programs like Cote d'Ivoire's Girls Cocoa Mentorship Network. These collaborative platforms show that sector-wide, coordinated efforts can better match firm-level initiatives with public rural poverty and social inclusion goals. Dedicated last-mile distribution options are also viable. East African Breweries' 40,000+ smallholder sorghum local sourcing program has increased earnings by 50% through crop husbandry,

inputs/credit, and market connections (Shumbanhete & Muzira, 2023). South Africa's black economic empowerment legislation mandate smallholders in agribusiness supply chains, however compliance monitoring is poor (Jordaan & Kirsten, 2019). Policy designs that promote outcomes can guide corporate resource allocation to marginalised rural areas.

Governance Sustainability Practices

Review articles suggest transparency measures including digital traceability systems, certification adherence, and integrity pacts can reduce sectoral risks. Kenya's horticulture council piloted smartphone-enabled blockchain monitoring for smallholder produce to ensure compliance with pesticide maximum residue limits for high-value export markets and reduce bureaucracy. South Africa's wine and citrus sectors follow worldwide labour standards with ethical trading programmes. Some agricultural companies use multilayered standards. GlobalGAP and FairTrade verify sustainability claims to improve branding, pricing, and responsible investment relationships (Babu & Shishodia, 2018). Industry coalitions also gain importance. The Nigeria Agribusiness Group platform, which gets stock exchange authorities to require financial disclosures, includes climate risk analysis for its members. The Southern African Confederation of Agricultural Unions successfully lobbied for transparent market information systems to stabilise regional commodity prices and enhance producer incomes (Grzelak & Sapa, 2018). These experiences imply that consolidating agribusiness growth strategies into associations can increase sectoral influence over continental policy issues that affect their long-term survival.

Challenges In Esg Integration And Sustainability

Economic, Social and Political Challenges

The examined literature shows that African agribusinesses face structural barriers to ESG integration. Financial restrictions, social/cultural concerns like farmer demographics, and political variables like policy gaps are these restraints. Agribusiness's sensitivity to variable global commodity prices and currency exchange volatility hinders cost-effective long-term sustainability planning. Governments must implement safety net instruments (Jordaan & Kirsten, 2019). As low-carbon agriculture becomes more important, inadequate rural finance services impede smallholders' capacity to implement resource-efficient agricultural systems without affordable credit. The region's high subsistence farming, which prioritises food security over economic efficiency,

complicates climate resilience and ecological stewardship planning (Yami et al., 2019). Evaluations from southern African countries show governance deficiencies in land tenure, carbon rights, and biodiversity access / benefit sharing regimes, which are necessary for sustainable agricultural investments. Weak contract enforcement undermines ethical supply chains and fair smallholder partnerships. Lobbying groups support legal reforms that enable transparent industry growth and sustainability.

Infrastructure and Resource Constraints

Rural Africa's inadequate infrastructure, energy access obstacles, and resource constraint hinder sustainability transitions. Deficient transport connectivity raises the cost of aggregating smallholder output, and cold chains are poorly distributed to reduce post-harvest losses, which have exceeded 50% for fruits and vegetables along value chains (Tsvakirai & Mosikari, 2021). Rural power shortages impede the adoption of new digital advising apps for real-time farm decision-making. Droughts and floods caused by climate change increase production risks, discouraging agribusiness investments in long-term sustainability projects without durable backup mechanisms. Thus, reviewed articles recommend "hard" infrastructure like all-weather transport and irrigation and "soft" solutions like climate-smart financial tools to boost resilience. Resource scarcity near depleting water tables and degraded landscapes hinders sustainable agricultural intensification. South Africa's agriculture uses over 60% of its water allocation, which is risky owing to rainfall variability and rising demand. Due to humid forested countries' deforestation of cocoa, coffee, tea, and palm oil, land use change control is needed. Reviews also emphasise the need to improve irrigation access, which accounts for less than 10% of cultivable farmland in most countries save Egypt, Morocco, and Sudan, where public initiatives are the norm.

Cultural and Regional Differences

Reviewed articles also suggest that resource-constrained central, east, and west African economies adopt ESG less than relatively developed southern African countries like South Africa, Botswana, Namibia, and Mauritius and middle-income North African nations like Egypt, Morocco, and Tunisia. Southern farms, processors, and export networks meet criteria well. Kenya and Cote D'Ivoire demonstrate horticulture and cocoa sustainability solutions linked into dynamic agricultural marketing. Reviews contrast these experiences with agricultural limits in less diverse countries like Chad and Guinea, which rely primarily on

volatile commodities like coffee, palm oil, and cotton with low value addition. Regional disparities in farmer education profiles cause variations. The 60% literacy rate in sub-Saharan Africa limits precision agricultural and climate-smart technology adoption. The continent has almost 2,000 languages, therefore rural recommendations must take that into account. Women provide over 50% of agricultural labour yet own under 5% of land in most nations, demonstrating gender inequality. Thus, inclusion policies that encourage women's engagement in sustainable development are needed. Sustainable agroforestry concepts are also opposed in some locations due to monocropping culture. African agribusiness needs flexible but rigorous support systems due to varied settings.

Regulatory and Policy Challenges

The assessment found that policy and institutional gaps in emissions accounting, trash recycling, and water efficiency hinder ESG integration in African agribusiness (Montmasson-Clair, 2018). Few countries have comprehensive climate change adaptation and mitigation laws. South Africa's National Climate Change Bill has been pending since 2018, while Nigeria's Climate Change Act (2021) mandates ministerial adaption plans. Technical provisions made horticulture more competitive in 2007 when only Kenya codified organic export norms (Yami et al., 2019). Key guidelines remain inaccessible. In the face of urgent economic considerations, inconsistent sustainability incentives like preferential utility tariffs for renewable energy adoption or tax rebates on environmental audits limit private sector emphasis. Governments also restrict exports due to commodity price changes. Since 2018, Tanzania's maize, rice, and sugar board has issued irregular grain export licenses. Policy uncertainties hinder investor sentiment and value chain transparency, which are necessary for sustainability. Thus, agribusiness associations are calling for consistent sectoral regulatory regimes that enable local ESG strategic implementation (Lapa et al., 2021).

Impacts Of Esg Integration On African Agribusiness

Economic Impacts

The examined publications indicate that sustainability-focused initiatives in African agribusiness can provide returns while addressing environmental and social issues. Solar irrigation experiments in Ghana, Mali, and Zambia enhanced farmer incomes and yields by over 25% through economical, reliable dry season cultivation and quality improvements, according to Yami et al. (2019). For anchor enterprises and smallholders, contract farming systems boost revenue

and productivity. SABMiller's sorghum sourcing programme enhanced supply chain efficiency and producer incomes by 50% (Shumbanhete & Muzira, 2023). Due to the growing number of eco-conscious consumers abroad, South African wine exporters charge more for verified "green" produce (Schelle & Pokorny, 2021). GDP growth from sustainable agricultural competitiveness has macro effects. West African cocoa sustainability efforts aim to double global market share in a decade by enhancing farmer quality, productivity, and welfare. As Kenya's 2020 horticulture exports reach $1.8 billion, sustainable production methods are needed to access premium markets. These examples show that African agribusinesses can boost their international competitiveness by scaling ESG integration when foreign restrictions tighten. Public-private partnerships must weigh long-term value against short-term expenses.

Social Impacts

Increased smallholder participation in contract farming consortiums is one of the primary social gains from new sustainable agribusiness models in Ethiopia, Zambia, and Ghana, where 80% of farms are under 5 hectares. Agronomy support services, consistent price, and guaranteed uptake help over 70,000 Nigerian cassava outgrowers move from subsistence planting to viable incomes, according to Anheuser-Busch InBev's local sourcing effort. In similar systems for high-value vegetables, dairy development, and aquaculture, co-designed interventions have improved health, education, and gender empowerment for vulnerable communities (Yami et al., 2019). Dedicated capacity building aids societal outcomes. The Nigerian government-supported N-Power initiative has taught over 500,000 rural youth in agribusiness entrepreneurship for rice, chicken, and tomatoes. The average income of participants has increased by 60% compared to the control group. Reviews stress that empirical situations like these warrant localising global sustainability frameworks to promote poverty alleviation and food security as ethical imperatives for regional agribusinesses. To ensure significant social benefits, strategies must promote youth and women's engagement in addition to productivity indicators.

Environmental Impacts

Climate-smart agriculture (CSA) improves water productivity, soil nutrients, and agrobiodiversity for African smallholders. They may also affect livelihoods by diversifying income streams. The integration of fruit trees with food crops in Malawi raised maize yields by up to 280%, suggesting that more sustainable

production techniques could enhance cereal production to fulfil regional demand shortages. Trials reduced pesticide treatments and post-harvest losses, improving quality, pricing, and resource efficiency (Akuriba et al., 2021). Solar mini-grid experiments for cold storage and irrigation have lowered horticultural value chains' carbon footprints in Benin, Burkina Faso, and Guinea. Previous value chains relied primarily on diesel. Village chilled beverage sales entrepreneurs received similar support from renewable energy investments, expanding earning prospects. Through integrating such learnings, the continent can reduce carbon emissions, especially by extending off-grid renewable energy availability. Processors and retailers have established conservation-beneficial sustainable buying procedures. Kenyan horticulture sources are linked to wildlife habitat sanctuaries (Annosi et al., 2022). Preserving critical ecosystem services supports the region's ecological resilience, food security, and tourism.

Long Term Sustainability and Resilience of Agribusinesses

According to positive economic returns and durability assessments, emerging sustainable agribusiness approaches can increase African smallholder resilience to climate change risks and system-wide efficiencies needed for global value chain integration. Conservation agriculture practices have increased Zambian smallholders' incomes by over 30% in recent drought years by using water efficiently; agroforestry models offer effective buffers against crop failures caused by rainfall variability through farm-level diversification; and climate-indexed microinsurance, which was piloted for cotton, maize, and coffee smallholders, has helped reduce crop failures. Partnerships improve sustainability through structural enablement. Capacity building among Zambian woman cotton outgrower associations increased collective incomes sixfold over three years by focussing on microenterprises, savings access, and vulnerable female farmers' productivity (Sinyolo et al., 2019). These instances demonstrate that African agribusiness may attain competitive, inclusive, and resilient futures by adopting ESG frameworks that fit different local contexts. To do this, innovation systems must coordinate policies, financing, technology, and stakeholder involvement to support common sustainability visions (Babikir, 2021).

Discussion

Summary of Key Findings from the Review

The articles show that African agribusinesses can improve productivity, value addition, smallholder welfare, export competitiveness, and climate resilience by incorporating ESG elements and sustainable practices. The studied cases demonstrate the economic returns on environmental and social investments in sustainable food system production, processing, and distribution methods. Agribusiness can now embrace world-class sustainability frameworks thanks to technological innovation, impact funding, governmental incentives, and increased consumer demand. Appropriate interventions can focus on Africa's smallholder-driven farming structure to elevate marginalised groups by providing secure livelihoods and transforming subsistence activities into ethical value chains that meet local food requirements and global standards. Dedicated interventions for young skills, gender equality, dietary diversity, and ecosystem stability correspond with continental development goals. However, countries' capacities, rural infrastructure, banking services, and coordinated policy regimes are lacking. Rapid investments, multi-stakeholder engagement, and technology transfer are needed to close these gaps and scale impact. Additionally, much of domestic agriculture still prioritises ESG compliance over holistic integration to create long-term shared benefit.

Comparison with Global Trends in ESG Integration

African agriculture remains behind global sustainability trajectories, as shown by a lower percentage of income dedicated to ESG spending and inconsistent adoption of ESG practices outside of export-oriented sectors. This requires catch-up paths. Voluntary standards are gradually implemented throughout value chains in response to foreign demand. Reviews show that ESG frameworks must be localised to better reflect small farm structures, human development aspirations, and climate adaption needs in Africa (Sonko & Sonko, 2023). Mobile advising tools developed in one location are now used worldwide, demonstrating reverse knowledge transfer (Yami et al., 2019). Smallholder-optimized solutions offer scalable alternatives to unsustainable intensification approaches that rely on excessive mechanisation for global agribusinesses. The Nigerian microventure capital funding for young companies, which is agri-focused and includes embedded social/environmental returns measurement, addresses critical early-stage investment gaps that hinder sustainability

entrepreneurship. Emerging Asian economies like Vietnam and India are seeing similar cases. Africa has almost 60% of the world's uncultivated arable assets, offering sustainable land investments in the next decades as global needs grow. However, significant policy reforms, infrastructural development, and productivity transformation are needed to sustain growth. These steps will allow rural populations to capitalise on these prospects without inequitable land grabs, which have traditionally damaged African farming systems and caused rural poverty and ecological degradation.

Implications for African Agribusinesses and Stakeholders

Integrating effective ESG frameworks can give African agribusinesses access to premium end markets, trade relationships, and impact finance for expansion, giving them competitive advantages. Leaders recognise that proactive sustainability commitments make firms the preferred partners of governments, development agencies, and socially responsible consumers seeking local allies across global value webs focused on conservation and ethics (Kryukova & Lagodiyenko, 2024). Policy signals also suggest stricter deforestation, product mile, and equitable pricing laws, which early adopters might use to gain a competitive edge. Small and medium agribusinesses with high informality rates need coordination help and upgrading to undertake complex sustainable practices. This requires regional tool optimisation, such as integrating sustainability assessments into mobile apps and developing climate-smart annotations in local languages, as well as microcredit lines and preferential utility access. To sustainably boost productivity and supply reliability, upstream smallholders need coordinated assistance. Climate change exacerbates their transacting, quality variability, and inefficient natural resource management limits, which should be addressed with this help. Incentivising lead farmers and using common links to modify behaviour could cost-effectively improve environmental results across scattered small farms.

Gaps in Current Research and Areas for Future Studies

Reviewed articles predominately focus on export cash crops, high value horticulture and emerging cases from southern Africa while large information gaps prevail across domestic food crop systems, livestock/aquaculture value chains and less commercially integrated farms in central, east and West Africa. Their heterogeneity, vulnerably to shocks and food security implications for regional stability underscore needs to urgently diagnose and address sustainability needs for resilient future proofing. With agricultural emissions

projected as Africa's single largest source by 2040 amidst population growth, low baseline adoption of conservation agriculture and ecosystem stability monitoring equally requires priority research (Filippi & D'Angelo, 2022).

Assessing spill-over effects from sustainable agribusiness adoption also offers valuable scope for upcoming work e.g. do benchmarks introduced for horticulture exports also translate onto local food crop practices? Does processors' sustainable buying promote regional environmental stewardship? This research could aid regional planning and investments based on sustainability policies like Africa's Malabo Declaration. There are also gaps in information on blockchain scalability, novel financing tools, and geospatial farm data suites for distributed smallholder transparency. Remote sensing and digital systems can improve policy planning and effect monitoring with diverse tools.

Conclusion

In conclusion, this comprehensive review found substantial but inconsistent progress in integrating ESGs to promote competitive, inclusive, and resilient African agribusinesses that are well-suited to complex and dynamic local environments. The researcher proposes an integrative framework, the AFRISAF Framework (African Framework for Responsible, Inclusive and Sustainable Agribusiness Futures), spanning interconnected imperatives: (a) establishing clear regulatory regimes and incentives guiding agribusiness sustainability efforts in line with net zero commitments, rural welfare needs and responsible production mandates; (b) consolidating technologies, infrastructure and service delivery models tailored for small farms to cost-effectively scale sustainable intensification; (c) enabling inclusive rural value chains and livelihood diversification through dedicated capacity building, financial access and youth engagement; (d) promoting transparency, traceability and integrity across food systems via innovation and multi-stakeholder cooperation. A visual schema of this proposed framework is provided below in **Figure 1.**

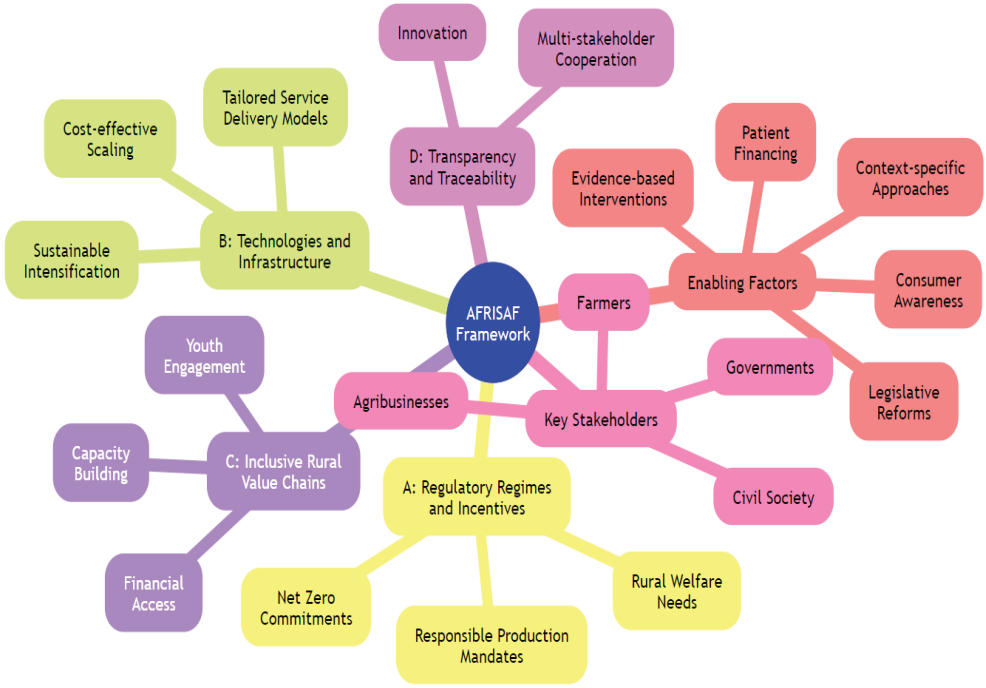

Figure 1: Emergent Framework - The AFRISAF Framework

The successful integration of these sustainability considerations across the dispersed production, vulnerable groups, and governance gaps that define African agriculture is contingent upon evidence-based, context-specific interventions that are supported by patient financing. Instead of compliance, downstream consumer awareness and upstream legislative reforms must be integrated to allow industry-wide transformation. Governments, agribusinesses, farmers, and civil society must work together to overhaul the food system. The review findings and framework provide a foundation for vital future research on scalable solutions to help the continent's fair transition to sustainable agriculture futures.

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