B20 SOUTH AFRICA 2025

Sustainable Food Systems and Agriculture

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Foreword by the Task Force Chair

The global food system is under immense pressure, with rising food prices, supply chain disruptions and climate shocks creating ripple effects that are felt across the world. Even in the most food-secure nations, these pressures are driving up costs, while the most vulnerable communities are being pushed to the brink of starvation. This is not just a crisis of food; it is a crisis of livelihoods, equity and sustainability.

Yet, this moment also presents an extraordinary opportunity to act. By reimagining how we grow, trade and govern food, we can transform our food systems into engines of resilience, inclusion and sustainability. This transformation requires bold collaboration, swift action and targeted investment, particularly in smallholder farmers, who play a vital role in feeding communities on the edge of food insecurity. Without urgent action, these trends will deepen inequality, undermine growth and compromise future well-being.

This requires systemic approaches, such as fixing trade inefficiencies, scaling sustainable practices and aligning efforts across governments, business and civil society. The Business 20 (B20) South Africa Task Force on Sustainable Food Systems & Agriculture (SFS&A) has embraced this challenge.

Guided by the theme "**Inclusive Growth and Prosperity through Global Cooperation**", our agenda focuses on enhancing resilience and inclusivity, scaling sustainable agriculture and unlocking trade potential.

The recommendations in this paper are the result of extensive analysis, global best practices and the collective expertise of task force members, co-chairs and knowledge partners. They are designed to be practical, measurable and adaptable to diverse contexts, offering a roadmap for stakeholders to drive meaningful change.

We hope this paper inspires leaders across sectors to act with ambition and urgency, seizing this opportunity to create food systems that serve both people and the planet.

Executive summary

Introduction

The Sustainable Food Systems and Agriculture (SFS&A) Task Force supports food security, resilient supply chains and sustainable farming by 2030, aligning with B20 South Africa's theme of "Inclusive Growth and Prosperity through Global Cooperation". This theme is underpinned by four pillars: inclusive growth, skills development, resilient supply chains, and the empowerment of women and small and medium-sized enterprises (SMEs).

As major contributors to gross domestic product (GDP) and employment across G20 economies, food systems are vital to poverty reduction and upskilling. Yet, systemic barriers facing women — a significant part of the agricultural workforce — underline the need for alignment with international frameworks, including the United Nations (UN) Guiding Principles on Business and Human Rights, the Voluntary Guidelines on the Responsible Governance of Tenure, and International Labour Organization (ILO) Core Labour Standards. Continued work by the SFS&A Task Force is critical to advancing inclusive, sustainable global development.

The current state of global food systems and the case for change

Effective food systems are essential for economic prosperity, sustainability and nutrition, yet they face mounting challenges — including climate change, supply chain disruptions and worsening food insecurity.[1] In 2022 alone, damages related to adverse weather events in Africa reached USD 8.5 billion and could rise to USD 580 billion in emerging markets by 2030. Global food insecurity surged by 150% between 2019 and 2022, largely due to supply chain breakdowns. By 2030, an estimated 80 million additional hectares of cropland will be needed globally — nearly 70% of this in Africa and Latin America — requiring both major productivity gains and sustainable land use to prevent deforestation, degradation and biodiversity loss.[2] Food price volatility remains high, driven by droughts, geopolitical instability and disrupted trade flows.

This paper applies the Organisation for Economic Co-operation and Development (OECD) "triple challenge" framework — improving nutrition, livelihoods and environmental sustainability — and calls for system-level thinking and coherent policies to balance tradeoffs and synergies. Improving agricultural trade can boost food availability, stabilise prices and strengthen resilience.

The B20 South Africa SFS&A Task Force builds on commitments from B20 Brazil and global initiatives, focusing on four impact areas aligned with G20 priorities:

- Enhancing labour and capital productivity

[1] McKinsey — Global Farmer Insights (2024). This report includes examples of digital agronomy, precision agriculture and remote sensing.
[2] McKinsey— Striking the Balance: Catalysing a Sustainable Land-Use Transition (2023).

- Ensuring climate resilience and promoting livelihoods
- Enabling and accelerating trade
- Promoting sustainable agricultural practices

These four impact areas are overlayed with a focus on the private sector's role in achieving a sustainable and inclusive food system by 2030.

Adapting the recommendations to different realities

The task force tailored its recommendations to national and economic contexts, distinguishing between high-income countries (HICs) and low- and middle-income countries (LMICs) based on gross national income (GNI) per capita. While HICs have greater resources, LMICs face funding and debt constraints. Recommendations account for macroeconomic conditions, food system maturity, value chain nuances and business size. Countries and businesses can adopt a mix of headline (globally tracked) and aspirational key performance indicators (KPIs) (not globally tracked) to suit their context. Informed by broad stakeholder consultation, the paper provides a flexible framework for context-appropriate implementation, with proposals subject to further review by relevant actors.

The path to action

The Task Force developed five recommendations to drive sustainable agricultural transformation and food security, targeting impact by 2030. These recommendations are the result of a rigorous and iterative process that analysed the global trends reshaping global food systems, identified high-impact areas for businesses to boost competitiveness and growth, and tailored specific, measurable actions to effectively address the problem statement.

The Task Force's recommendations are interlinked, addressing the complex nature of global food systems. Strengthening supply chains and enhancing trade go together to improve stability. However, progress is hindered by a lack of harmonised KPIs. To ensure effective implementation, the B20 stresses the need for standardised KPIs and cross-sector collaboration to enable coordination and accountability.

Cross-cutting enablers

Four enablers are essential to scale the Task Force's recommendations: public-private-philanthropic partnerships (4Ps), innovation and digital inclusion, access to finance and infrastructure, and regulatory harmonisation. These elements drive systemic transformation by aligning interests, mobilising resources and fostering collaboration. Notable examples include Peru's USD 24 billion irrigation public-private partnerships (PPPs), the Khula Smart Farming app, the African Agriculture Fund (AAF) and Nigeria's green bonds. Aligning regulations with World Trade Organization (WTO) standards supports trade and food safety. Collectively, these enablers are vital to achieving a sustainable, inclusive and resilient global food system by 2030. [3]

[3] Reuters — Peru to spend $24 billion on irrigation to expand farmlands (2025).

Conclusion

The B20 South Africa SFS&A Task Force understands the complexity of transforming agricultural, food systems and the need for coordinated global action. Building on past B20 efforts and global frameworks like the Kampala Declaration, the Task Force aims to improve food security and supply chain resilience. Its recommendations focus on maintaining continuity with past priorities, adapting to recent global developments and emphasising the private sector's role. By implementing these actions, the goal is to create a sustainable, inclusive and resilient global food system, ensuring food security for all by 2030.

Introduction

Introduction

B20 South Africa aims to deliver practical recommendations for inclusive economic development under the theme "Inclusive Growth and Prosperity through Global Cooperation", built on four pillars: inclusive growth, skills development, resilient supply chains, and empowerment of women and SMEs. Food systems and agriculture are central to these goals, contributing significantly to GDP and employment in G20 countries — employing around 40% of the workforce in India and 30% in Indonesia. Women, who make up 60% of the agricultural labour force in low-income countries, face barriers to land, finance and skills. Aligning efforts with international frameworks, such as the UN Guiding Principles on Business and Human Rights and ILO Core Labour Standards, is essential. By promoting food security, poverty reduction, upskilling and inclusive financial access, food systems can drive broad-based, rights-based growth across the G20.[4]

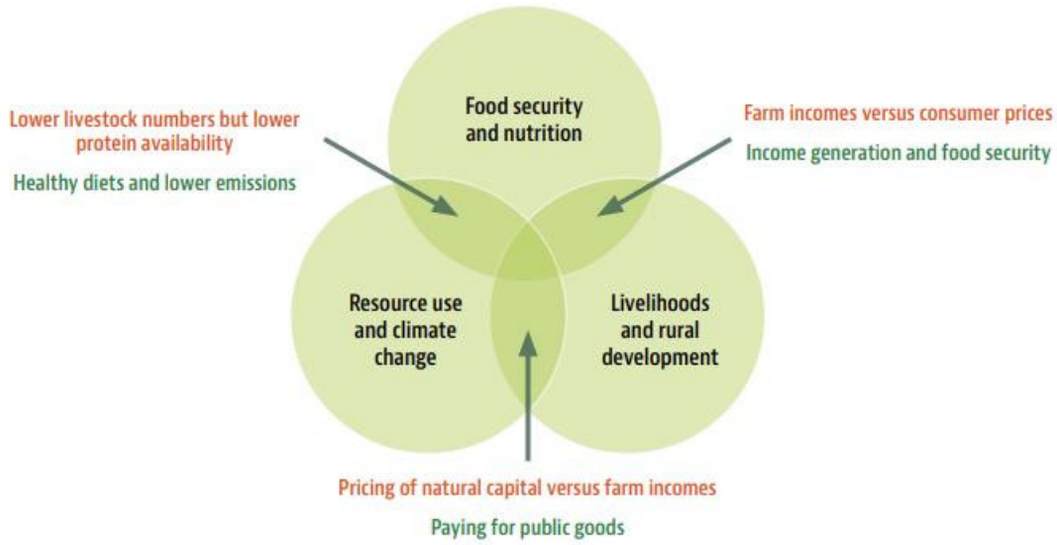
The case for change

Effective food systems are crucial for economic prosperity, sustainability and nutrition. They provide access to nutritious diets essential for the growth and productivity of the global workforce. Agriculture supports livelihoods, employing about 50% of Africa's workforce and impacting over 250 million people, mostly women.[5] It drives economic growth, trade and sustainable management of planetary boundaries. However, current food systems fail to sustainably meet the growing global needs for food, fuel, fibre and nature, leading to rising food insecurity, price volatility and supply chain vulnerabilities. This exacerbates economic inequality, hunger and malnutrition, increasing vulnerability to external shocks.

This paper adopts the OECD's "triple challenge" framework (see Figure 1 below), which aims to enhance nutrition, livelihoods and environmental sustainability while recognising tradeoffs and synergies. Improving agriculture through trade enhances food availability, stabilises prices and strengthens resilience. When food becomes unaffordable, it impacts health, education and productivity. This framing underpins the B20 paper's focus on resilient food systems.

[4] World Bank — Agriculture, forestry, and fishing, value added (% of GDP) (2023).; Food and Agriculture Organization of the United Nations (FAO) — The Status of Women in Agrifood Systems (2023).
[5] FAO — Employment indicators 2000-2022: October 2024 update (2024).

Figure 1: OECD example of synergies and tradeoffs in the food value system



The global food system faces immense pressure stemming from five megatrends: [6]

1. **Climate change is impacting agricultural yields**, worsening displacement and conflicts. This resulted in USD 8.5 billion in economic damages in Africa alone in 2022; damages could reach USD 580 billion in emerging markets by 2030.
2. **Global supply chain disruptions due to geopolitical events** have contributed to worsening food insecurity and higher spending on food. Food insecurity increased by 150% globally from 2019 to 2022.
3. **The accelerated pace of technical innovation**, including the digitisation of agriculture and the rise of next-generation sustainable inputs, is transforming the sector. In Brazil, 30% of surveyed farmers are adopting or willing to adopt digital technologies.
4. **The increase in food demand due to growing populations** requires higher agricultural productivity. For example, cereal demand is expected to increase by 40% by 2050, driven primarily by developing economies and emerging markets (EMDEs).
5. **Improving land and resource management has become a pressing need** to sustainably meet the demands of the world's growing population, which will require 70 to 80 million hectares of additional cropland globally by 2030. Nearly 70% of this demand is expected from Africa and Latin America.

[6] FAO — FAO's Conceptual framework for integrated land and water resources management (2025); FAO — How to Feed the World in 2050 (2009); Intergovernmental Panel on Climate Change (IPCC) — Special Report on Climate Change and Land (2019); McKinsey — Striking the Balance: Catalysing a Sustainable Land-Use Transition (2023).

Food prices and insecurity have risen sharply, particularly in LMICs. In Sub-Saharan Africa, 46 million more people became undernourished between 2019 and 2022.[7] Climate change could raise food prices by 30% by 2050, while cereal demand may grow by 40%, mainly in EMDEs. LMIC food insecurity surged by 150% during this period, worsened by geopolitical disruptions to supply chains.[8] Despite this, there are opportunities to improve food security and resilience. Tripling intra-African trade could generate USD 180 billion in exports and 10 million jobs, while improving cold storage, transport and digital tools could benefit 30 million people. Globally, reducing food loss and waste — which accounts for a third of all food produced — is vital. In Asia, closer trade ties between South and Southeast Asia could boost GDP significantly.[9]

Food scarcity, unaffordability and unsustainable practices undermine nutrition and labour productivity. This paper highlights the urgency for cohesive, innovative strategies to transform food systems, offering actionable recommendations based on global and regional insights.

The current state of global food systems

Global food systems face the dual challenge of meeting rising demand from a growing population while improving productivity. In Africa and India, where agriculture employs up to 50% of the workforce, progress is limited by weak infrastructure and lack of capital.[10] The SFS&A Task Force builds on B20 and G20 frameworks, such as the B20 Brazil commitment and Kampala Declaration, to support LMICs through investment, inclusive trade, climate-resilient technologies and finance. It addresses key challenges like supply chain volatility, climate stress and food insecurity.

Three macro developments are reshaping food systems: the geopolitical impact on trade, the growing role of LMICs and the need for coordinated public-private action. Trade barriers, including tariffs of up to 20%, may disproportionately affect LMICs. The G20 presidency shift to Brazil and South Africa provides a timely opportunity to prioritise food security and climate resilience, supported by initiatives like the African Union's (AU) Kampala Declaration.[11] The B20 SFS&A Task Force identifies three levers to transform global food systems:

1. **Increased trade:** Boosting food production in regions with competitive advantages to enhance global food availability
2. **Resilient supply chains:** Strengthening local and regional sourcing to reduce price volatility, mitigate external shocks and create stable jobs
3. **Sustainable agricultural practices:** Promoting practices that conserve resources and improve soil quality to meet growing global food demands sustainably

[7] Alliance for a Green Revolution in Africa (AGRA) — Empowering African Food Systems (2023).
[8] McKinsey — Global Farmer Insights (2024); World Bank — What you need to know about food security and climate change (2022).
[9] World Bank — Deepening linkages between Southeast Asia and Asia (2022).
[10] International Fund for Agricultural Development (IFAD)— [IFAD Annual Report 2022] (2022); Oxford Economics — [The Economic Impact of the Agri-Food Sector in Southeast Asia] (2022); UN Population Prospects — [World Population Prospects 2022] (2022).
[11] OECD — Agricultural Policy Monitoring (2024), AGRA — Empowering Africa Food Systems (2023).

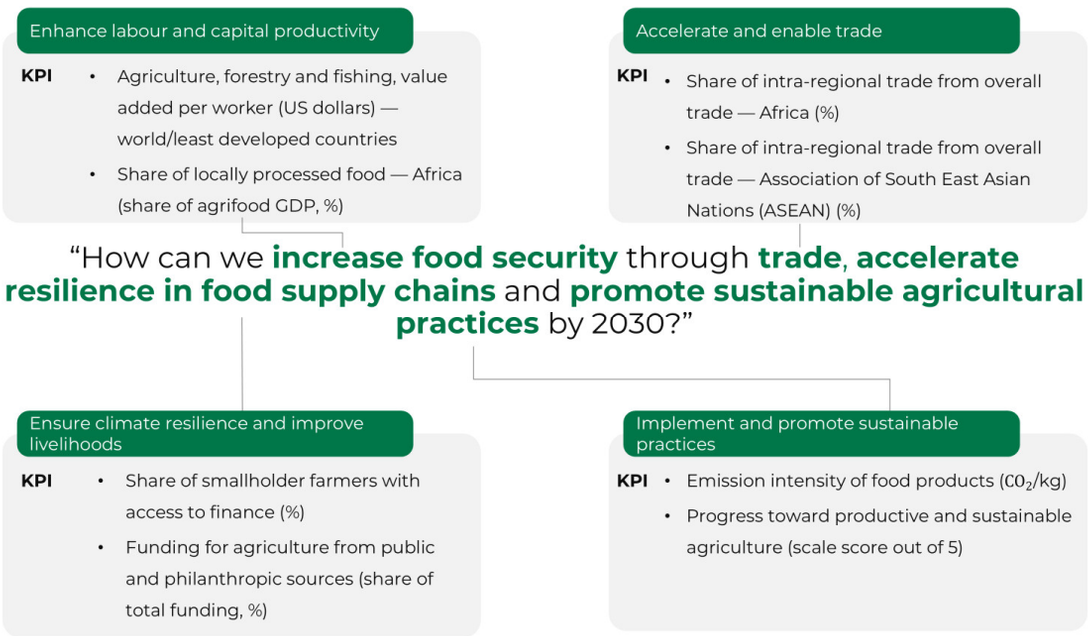
A stable, rules-based trade system is essential for food security, price stability and inclusive growth. Expanding intra-African trade could generate USD 180 billion in exports and 10 million jobs. Improving infrastructure and cold chains could boost GDP by up to 2% and benefit 30 million people. [12] India also presents strong potential, with consumption expected to double by 2030 and the capacity to create 90 million non-farm jobs to support sustained GDP growth.[13]

The path to action: Prioritising opportunities at stake

Opportunity mapping: Problem statement and impact areas

Four impact areas were identified (see Figure 2 below) based on the insights from the landscape analysis, and in response to the central question: How can we increase food security through trade, accelerate resilience in food supply chains and promote more sustainable agricultural practices by 2030?

Figure 2: Overview of impact areas and headline KPIs mapped to the problem statement



Five priority actions (recommendations) up to 2030

The Task Force developed five key recommendations to drive inclusive, sustainable agricultural transformation and improve food security by 2030. Each is supported by strategic actions addressing long-term challenges beyond this horizon. These recommendations are based on a rigorous analysis of global food system trends and prioritise high-impact, measurable actions to boost business competitiveness and growth. The approach balances immediate priorities with longer-term solutions.

[12] Africa trade report (2024); United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) — Asia-Pacific Trade and Investment Briefs 2024/5: Regional growth outperforms global average (2025).
[13] McKinsey — What does the future hold for India? (2024).

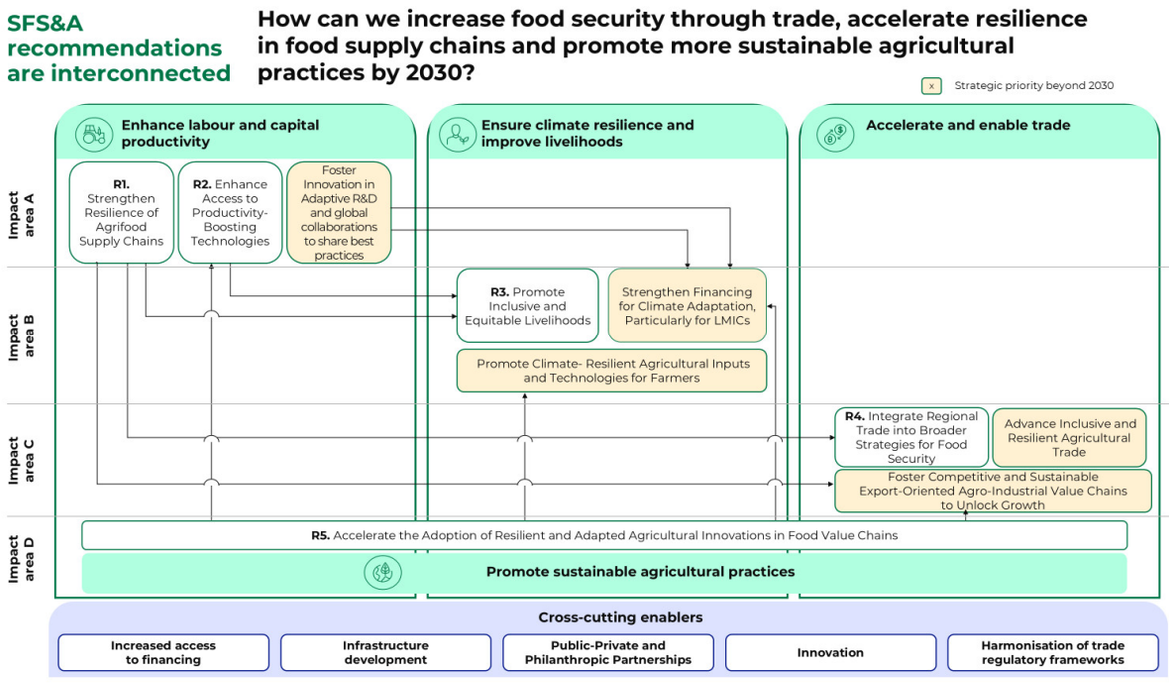
Recommendations

Impact area A: Enhance labour and capital productivity	
R1: Strengthen the resilience of agrifood supply chains	Invest in regional and local sourcing and processing of food products across the agrifood supply chain. Increase the participation of small-scale producers and businesses, including women and youth, and promote transparent supply chain governance. Balance regional and local supply chain development with intra- and inter-regional trade, optimised land use and support for inclusive workforce development suited to market needs.
R2: Enhance access to productivity-boosting inputs and technologies	Promote equitable access to agricultural inputs and technologies to boost productivity, resilience and profitability, including for small-scale producers and agrifood SMEs in two main ways. Prioritise uptake of emerging tools like artificial intelligence (AI), drones and precision farming through user-centric design and interoperable digital platforms that safeguard privacy, land rights and labour. Strengthen global cooperation on science, technology transfer and dissemination to support affordability, last-mile delivery and capacity building.
Impact area B: Ensure climate resilience and improve livelihoods	
R3: Promote inclusive and equitable livelihoods	Invest in building more inclusive strategies across the food value chain that intentionally address the climate resilience needs of smallholder farmers, women, youth and underserved communities. Achieve this through tailored financial solutions and capacity building across the value chain. Support these efforts by generating rigorous evidence on their impact.
Impact area C: Accelerate and enable trade	
R4: Integrate intra- and inter-regional trade into broader strategies for food security	Embed intra- and inter-regional trade into long-term food security strategies by strengthening trade-enabling infrastructure, coordinating early warning systems, aligning policies and harmonising standards. This includes aligning regional agriculture and trade regulations with international frameworks to reduce trade frictions, strengthen market access and promote sustainable, inclusive trade systems, using emerging digital solutions.

Impact area D: Promote sustainable agricultural practices	
R5: Accelerate the adoption of resilient and adapted agricultural innovations in food value chains	Promote regenerative agricultural practices and certifications that are science-based and risk-informed for businesses of all sizes across the food value chain. Strengthen public and private digital agronomic advisory systems in partnership with the private sector to ensure effective uptake of these innovations, particularly in LMICs.

The SFS&A recommendations are closely interconnected and mutually reinforcing (see Figure 3). For example, improving access to inputs and technologies (Recommendation 2) supports both improving livelihoods (Recommendation 3) and promoting sustainable practices (Recommendation 5). These links are strengthened by cross-cutting enablers, such as finance, innovation ecosystems and digital tools. Together, they support an integrated approach to boosting food security, supply chain resilience and sustainable agriculture by 2030.

Figure 3: Recommendations and interlinkages



The need for complete and accurate KPI data tracking

The absence of harmonised KPIs undermines accountability and progress in food systems. Despite efforts from organisations like the OECD and the FAO, fragmented tracking limits overall impact. Standardised KPIs and coordinated, cross-sector approaches are essential for effective monitoring. Strong data ecosystems support evidence-based decisions. The FAO's 2025 Food Systems Countdown tracks 50 indicators across key areas, while tools from the World Bank, the UN Conference on Trade and Development (UNCTAD) and others help close data gaps and align with the Sustainable Development Goals (SDGs).[14] The B20 underscores the need for clear, scalable KPIs to drive coordination and measurable impact.

Adapting recommendations to different contexts

To enhance the relevance and practicality of its recommendations, the task force examined how reform priorities and implementation strategies differ across stages of national, regional and sectoral development. Food systems and agricultural contexts are typically shaped by geographic, national and sectoral contexts; each country has inherited their economic structures. As G20 South Africa highlights, many nations grapple with constrained access to reliable funding and heavy debt burdens, which divert resources from food systems and agricultural investments and priorities. This approach demonstrates how the goals of other B20 papers can be adapted to varied institutional, sectoral, economic and implementation contexts.

To address these complexities, the task force refers to two broad country groupings, based on World Bank data on GNI per capita:[15]

- **HICs:** These are countries with a GNI per capita of more than USD 14,005 as of 2025. HICs typically have broader access to resources and advanced infrastructure, and comprehensive policies, such as national vaccination programmes, are more prevalent in these nations.
- **LMICs:** These include countries with a GNI per capita of USD 14,005 or less. LMICs typically face constrained funding and heavier debt burdens. This grouping is further divided into low-income countries, lower-middle-income countries and upper-middle-income countries.

This paper does not prescribe sector prioritisation, but highlights success cases and approaches relevant to implementation. The recommendations are tailored to address unique challenges and conditions, considering factors like macroeconomic environments, food system maturity, business size and value chain roles. Each country and business must select the recommendations, actions and KPIs that best suit their needs, distinguishing between globally tracked headline KPIs and less consistently tracked aspirational KPIs. This ensures that the paper's goals are adaptable to diverse contexts, offering clear next steps while balancing global objectives with local implementation realities.

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[14] FAO — New report highlights critical food system trends and challenges in countdown to 2030; World Bank — Food Systems 2030; International Finance Corporation (IFC) — Beyond the Balance Sheet — IFC Toolkit for Disclosure and Transparency.

[15] World Bank — World Bank country classifications by income level for 2024-2025 (2025).

Conclusion

The B20 SFS&A Task Force seeks to catalyse a forward-looking transformation of global food systems to increase food security through trade, accelerate resilience in food supply chains and promote more sustainable agricultural practices by 2030. The recommendations presented are grounded in global best practices and illustrative case studies, offering actionable and measurable solutions for stakeholders. Aligned with the G20 agenda, B20 Brazil and the Kampala Declaration, these proposals aim to build more resilient, competitive and inclusive agricultural landscapes.

Impact area A:

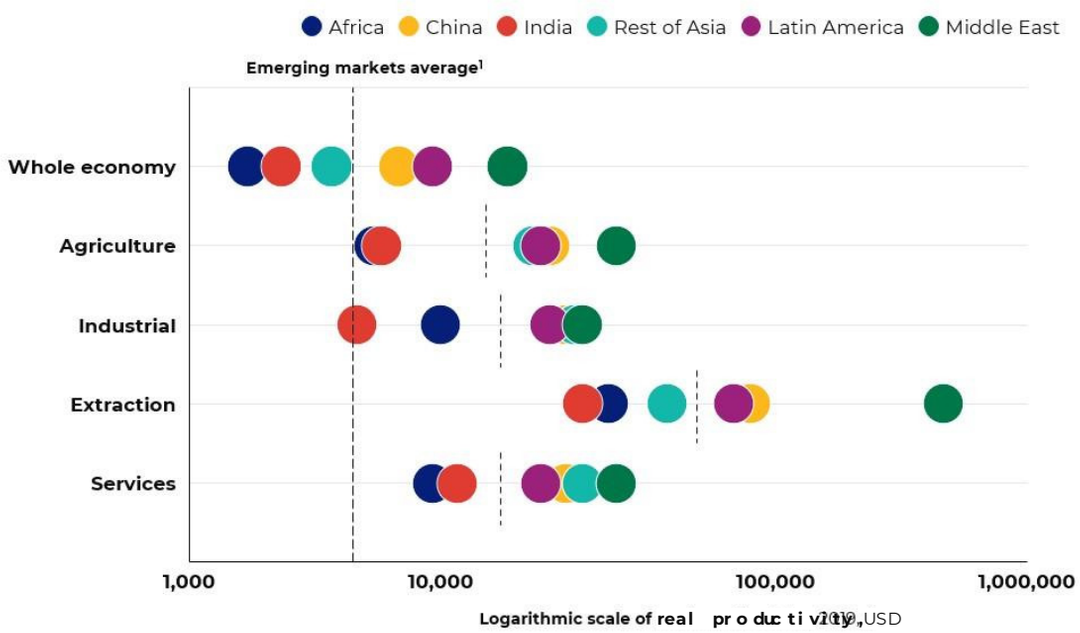
Enhance labour and capital productivity

Impact area A: Enhance labour and capital productivity

Background to recommendations 1 and 2

Improving labour and capital productivity is crucial to strengthening agriculture and meeting rising global food demand. In many G20 countries, agriculture employs 40-50% of the workforce but contributes just 10-20% to GDP — particularly in LMICs. Closing this gap is key to tackling food insecurity and driving inclusive growth. Productivity gains must be inclusive, targeting smallholders and focusing on efficiency and value creation across the food system. A holistic approach is needed: strengthening supply chains (Recommendation 1) supports trade (Recommendation 4), and access to technology (Recommendation 2) enhances skills and livelihoods (Recommendation 3). Regions like Latin America, China and the Middle East show strong progress. China offers a model — using strategic investments in infrastructure and agrotechnology to lift productivity. Together, recommendations 1 and 2 lay the foundation for a more resilient and inclusive food system globally.

Figure 4: Across emerging markets, Latin America, China and the Middle East lead the pack on agricultural productivity[16]



1. Emerging markets include middle-income countries as determined by the World Bank

[16] McKinsey Global Institute — Africa Productivity Model (2023).

Recommendation 1:

Strengthen the resilience of agrifood supply chains: Invest in regional and local sourcing and processing of food products across the agrifood supply chain. Increase the participation of small-scale producers and businesses, including women and youth, and promote transparent supply chain governance. Balance regional and local supply chain development with intra- and inter-regional trade, optimised land use and support for inclusive workforce development suited to market needs.

Action 1.1:

Promote private sector involvement in the development of local and regional supply chains.

- **Action 1.1.1:** Improve investment incentives for private sector investment in local and regional raw materials sourcing and production across the food value chain in countries that can competitively and affordably process food. For example, incentives could take the form of tax credits and exemptions, milestone-based funding, concessional loans or preferential procurement. Encourage regional and LMIC trade in areas where local competitiveness is lower, with a sharp focus on enhancing market access.

Action 1.2:

Optimise the use of land to meet the growing needs for food, fuel, fibre and nature.

- **Action 1.2.1:** Optimise sustainable land use and flexible frameworks to avoid land use change while managing the increasing demand for land to satisfy global needs for food, fuel and fibre. For example, clarify risk-sharing responsibilities in 4Ps, enable greater land access and secure tenure. For land identified for food, invest in restoring degraded land through 4Ps that seek complementarity with energy and fibre needs, using a broad range of sustainable practices that are inclusive and build the capacity of small-scale producers and landowners. Promote investments in food loss waste management structures as part of optimising sustainable land use to reduce post-harvest loss, such as repurposing food waste into feedstock.

Action 1.3:

Collaborate with the private sector to enhance labour productivity through tailored development programmes for upskilling and re-skilling, considering emerging digital technologies, such as the rapidly evolving generative AI landscape (Africa's potential in generative AI could add up to USD 1.5 trillion to the global economy annually by 2030);[17] promote the uptake of these programmes by women, youth and smallholder farmers in agriculture.

- **Action 1.3.1:** Collaborate with private sector employers to structure and deliver workforce development programmes that are suited to market needs. Equip and encourage individuals to adopt modern agrifood practices and technologies while strengthening regional and local supply chain participation.

Headline KPIs to track

KPIs	Baseline	Target	KPI owner
Agriculture, forestry and fishing, value added per worker — world (US dollars)	4,011 (2023)	6,958 (2030)	World Bank
Agriculture, forestry and fishing, value added per worker — least developed countries (LMICs) (US dollars)	3,552 (2023)	6,150 (2030)	World Bank
Share of locally processed food — Africa (share of agrifood GDP, %)	Unavailable — see details below*	35%	AU, regional continental bodies

*Only the AU has articulated a target, but no baseline has been provided. This will need to be developed over time through data collection across Africa and other LMICs. While partial baselines and targets currently exist (e.g., agrifood GDP), the AU remains the only body with a stated ambition.

Potential impact of recommendations 1 and 2

Improving labour and capital productivity will require more agro-processing through investments along the value chain, improved technologies and inputs, and more capability building that improves worker skills. This is reflected in increasing agricultural value added per worker driven by downstream investments, which increase end-product output, raise wages for both men and women, and ultimately improve livelihoods.

A successful intervention to enhance labour and capital productivity could have the following impact:

[17] McKinsey — Leading, not lagging: Africa's gen AI opportunity (2025).

- I**ncreased agricultural value added per worker:** In Kenya, agricultural value added per worker is currently approximately USD 2,184.[18] Increased incentives for local and regional processing can increase the share of locally processed food, which currently makes up 16% of agricultural GDP. Examples of those incentives include investment deductions for capital expenditure on buildings and machinery used for manufacturing.[19] In Ghana, agro-processing activities enabled cassava farmers to generate additional income, which they subsequently invested in improving their lives and household livelihoods.[20] Value addition inherently increases the marginal value of products in the market, leading to higher revenue for all stakeholders in the chain.

- **Enhanced local and regional food processing:** Enhancing food processing at local and regional levels can be driven by market demand, aligning production with consumer needs and fostering value chain development from farm to fork. This involves adopting technologies to minimise post-harvest losses and implementing targeted workforce upskilling and re-skilling programmes, especially for women and youth. These efforts improve capital and labour productivity, driving growth in local and regional output. Investing in post-harvest loss-reduction technologies, such as solar-powered cold storage rooms and hermetic storage bags, is a "quick impact intervention" that can enhance food security. For example, in Nigeria, ColdHubs' solar-powered cold storage rooms have saved over 5,000 tons of vegetables and fruits since 2018,[21] increasing income for small-scale farmers and traders. In Zambia, hermetic storage technology adoption led to a 47% decrease in post-harvest losses and a 37% increase in yearly income for participating farmers.[22]

- **More sustainable land use:** Land use optimisation is crucial to ensure that these output increases are sustainable over time and meet the growing needs for food, fuel, fibre and nature. Identifying and restoring degraded lands that are suitable for food production or silvopasture presents significant investment opportunities. Globally, restoring degraded landscapes could require investments up to USD 300 billion by 2030, with a substantial portion needed in Africa and Latin America.[23]

[18] World Bank — World Development Indicators (constant 2015 US dollars) (2022).
[19] FAO — Food Systems Profile — Kenya (2023).
[20] Davila Novoa, C. G. — A tuber for Ghanaian development: Influence of agro-processing activities in the lives and livelihoods of cassava farmers (2022).
[21] Affognon, H., Mutungi, C., Sanginga, P., & Borgemeister, C. — Unpacking Postharvest Losses in Sub-Saharan Africa: A Meta-Analysis (2014).
[22] Collent Ng'andu, Dr Kelvin Chibomba — Effects of Agricultural Hermetic Technology Adoption on Household Income in Kapinjipanga Chiefdom of Solwezi District, Zambia (2025).
[23] McKinsey — Striking the balance: Catalyzing a sustainable land-use transition (2023).

Potential implications of recommendation for key stakeholders:

- **Government and policymakers** (e.g., ministries of agriculture, trade authorities, etc.) may establish regulatory clarity and targeted incentives to encourage equitable technology access for smallholders and agrifood SMEs.
- **Private investors and financial institutions** (e.g., commercial banks, development finance institutions, etc.) could develop blended finance tools and de-risking mechanisms to support local processing, logistics and cold chain upgrades, while managing supply chain and climate risks.
- **Agribusiness associations and food value chain actors** (e.g., producer organisations, commodity councils) may coordinate members to promote transparent, sustainable sourcing, build workforce skills and advocate for frameworks that enable resilient regional trade connections.

Successful case studies

HICs — British Columbia: Programme to enhance food security through local supply chains

The government of British Columbia invested USD 150 million in affordable and local food production through the Indigenous Food Security and Food Sovereignty Program, which supports farmers in local communities to revitalise traditional agrifood practices and build resilient local food systems. The programme focuses on investments to improve productivity, such as food facility processing upgrades and equipment for livestock processing, resulting in an estimated 18% increase in agriculture, forestry and fishing value added per worker (from USD 25,000 to USD 29,500 annually). Additionally, the share of locally processed food as a percentage of agrifood GDP rose by 12%, from 40% to 52%, while farm output value per hectare increased by 15%, from USD 8,000 to USD 9,200. These outcomes highlight the programme's success in strengthening local supply chains, enhancing productivity, and promoting sustainable and inclusive food systems.[24]

LMICs — AGRA: Holistic approach to private sector engagement and supply chain strengthening

AGRA is instrumental in strengthening viable, inclusive agrifood markets across 15 focus countries, leveraging over USD 300 million in investments to catalyse widespread change. Its strategic approach has yielded significant outcomes: the organisation has supported the creation of 125 seed companies, facilitating the production of approximately 600,000 metric tons of seed to enhance input availability. Furthermore, AGRA has trained 5.3 million farmers in integrated soil fertility management, thereby improving the adoption of sustainable farming practices across 1.46 million hectares. AGRA has also strengthened the market: approximately 700,000 metric tons of commodities were sold to SMEs, valued at USD 364 million, which has significantly boosted post-harvest and marketing practices. AGRA champions private sector involvement by creating an enabling environment, mobilising investment for socially inclusive enterprises, and de-risking innovative financing for farmers and agribusinesses. Its commitment also extends to workforce development, through initiatives like the recent Request for Concept Note for agricultural transformation

[24] Government of British Columbia — [Province helps strengthen Indigenous food security, sovereignty] (2025).

in Malawi, which focuses on fostering youth micro-entrepreneurship and farmer productivity through inclusive markets and trade.

Potential next steps for B20 countries

While both LMICs and HICs share a common goal of building more resilient agrifood supply chains, the context and constraints differ significantly. Figure 5 illustrates how priorities differ based on their respective contexts.

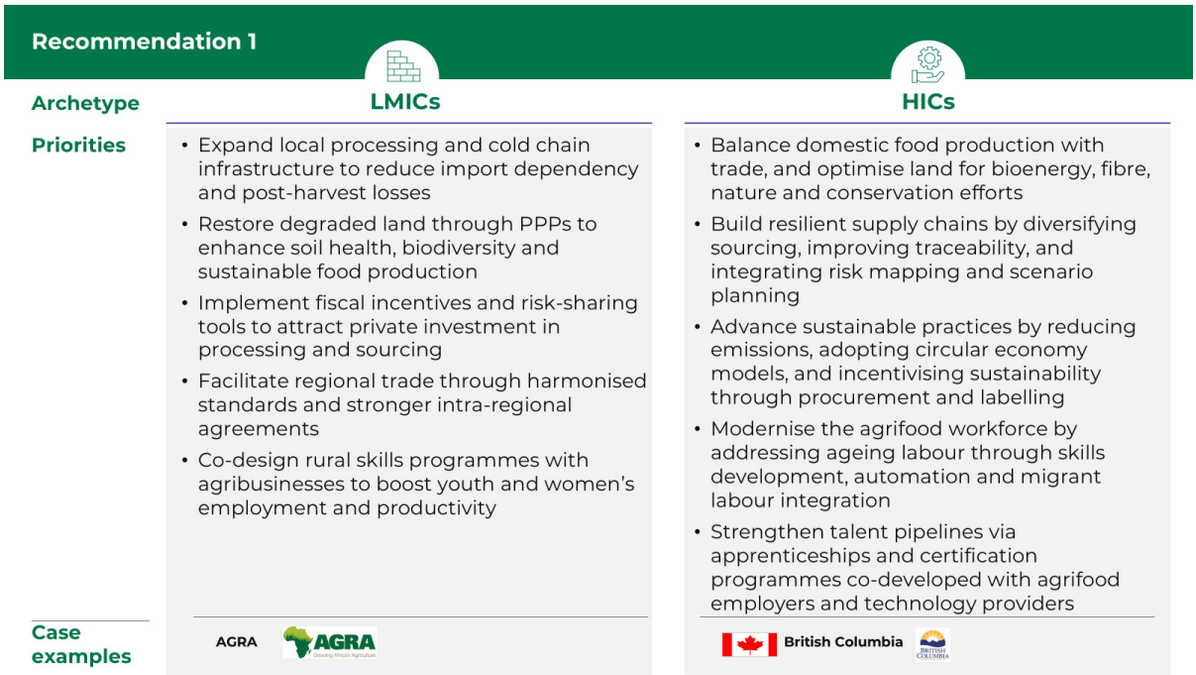
LMIC context

Priorities include strengthening regional processing, reducing post-harvest losses and improving market access. Workforce development should focus on equipping youth with climate-resilient agricultural skills. Limited infrastructure and institutional capacity remain key challenges. Progress depends on formalising smallholders and boosting collaboration across governments, trade blocs and development partners.

HIC context

Efforts centre on diversifying supply sources, digitising infrastructure and decarbonising value chains. Workforce strategies target automation, sustainability skills and addressing an ageing labour pool. The private sector plays a key role in upskilling and should work closely with national resilience bodies, industry groups and research institutions.

Figure 5: Priorities for LMICs and HICs for Recommendation 1



Recommendation 2:

Enhance access to productivity inputs and technologies: Promote equitable access to agricultural inputs and technologies to boost productivity, resilience and profitability, including for small-scale producers and agrifood SMEs in two main ways. Prioritise uptake of emerging digital tools like AI, drones and precision farming through user-centric design and interoperable digital platforms that safeguard privacy, land rights and labour. Strengthen global cooperation on science, technology transfer and dissemination to support affordability, last-mile delivery and capacity building.

Action 2.1:

Promote equitable access of market-relevant improved inputs and technologies through incentives, tailored financing solutions and risk-based regulatory frameworks.

- **Action 2.1.1:** Advance mechanisation and labour-efficient technologies. Promote inclusive access to mechanisation through innovative financing tools, such as bundled credit schemes that make technologies more accessible and affordable. Establish cost-efficient rental markets for equipment, such as spare parts and irrigation systems, and reduce barriers to affordability. Promote human-centred design adapted to smallholder farmers and their unique agricultural needs. Promote these efforts globally, tailored to each country's needs.
- **Action 2.1.2:** Foster uptake of high-quality and productivity-enhancing agricultural inputs. Promote the adoption of improved agricultural inputs — such as seeds, fertilisers and bio-based products — that are well suited to the needs of producers and production systems.

Action 2.2:

Promote collaboration between governments, private sector entities and educational institutions to disseminate productivity-boosting technologies across borders.

- **Action 2.2.1:** Incentivise the development, access, adoption and dissemination of productivity-boosting technologies (e.g., AI, drone systems and precision farming) through a financial, risk-based regulatory framework and market-based levers to promote private sector investment and accelerate farmers' adoption of these emerging technologies. Provide regulatory clarity, de-risk investments and ensure safeguards for digital privacy, land rights and labour protections.

Headline KPIs to track

KPIs	Baseline	Target	KPI owner
Agriculture, forestry and fishing, value added per worker — world (US dollars)	4,011 (2023)	6,958 (2030)	World Bank
Agriculture, forestry and fishing, value added per worker — least developed countries (LMICs) (US dollars)	3,552 (2023)	6,150 (2030)	World Bank

Potential implications of recommendation for key stakeholders:

- **Government and policymakers** (e.g., ministries of agriculture, rural development agencies) may develop incentives, regulatory frameworks and data protection measures to expand affordable, equitable access to productivity-enhancing technologies.
- **Academic and research institutions** (e.g., agricultural research councils, universities) may support local adaptation through applied research, pilot testing and skills development to encourage technology adoption.
- **Private industry input and technology providers** (e.g., agritech firms, input players, digital platform developers) could focus on user-centred design, interoperability and partnerships to deliver inclusive, scalable solutions that reach smallholders and SMEs.

Successful case studies

HICs — United States Department of Agriculture (USDA): Conservation Innovation Grants (CIG) programme for equitable adoption of advanced practices

The USDA's CIG programme promotes advanced agricultural technologies like precision farming and climate-smart practices, with targeted support for historically underserved producers. Up to 10% of national funds are earmarked for these groups, offering favourable cost-share terms — 50% for standard projects and 10% for On-Farm Trials, with waivers available. In July 2024, the USDA invested USD 90 million in 53 new projects to accelerate innovation in conservation. One Mississippi project used USD 5 million to apply drone-based irrigation and nutrient management over 12,000 acres, improving soil health, water efficiency and farm viability. These initiatives reduce upfront costs, enhance resilience and support equitable productivity gains. CIG also contributes to the sector's broader performance — agriculture value added per worker in the United States reached around USD 88,000 in 2022 — by driving innovation and efficiency, especially for disadvantaged producers.[25]

[25] Natural Resources Conservation Service (NRCS) — USDA Announces $90 Million in Innovative Projects (2024).

LMICs — AFGRI and John Deere initiative to facilitate access to tractors for mid-sized farmers in Zambia

In Zambia, AFGRI and John Deere partnered to provide affordable tractor financing and training to mid-sized farmers, enabling them to rent out equipment to smallholder farmers. The programme's success lay in its private-sector-led, end-to-end model, which included financing, after-sale services and training on economic viability. As a result, land cultivation increased from 60% to 92%, yields improved by 25% and farmers' income nearly doubled.[26]

Nestlé: Net-zero dairy farms

Launched in 2020 in George, South Africa, the Skimmelkrans Net Zero Carbon Emissions Project demonstrates private sector leadership in sustainable dairy farming. Through manure processing, feed self-sufficiency and water conservation, the farm achieves net-zero emissions.

Key results include 500 tonnes of manure processed, 14.5 million litres of water recycled and 6,000 tonnes of carbon dioxide sequestered annually. The farm also uses solar power, zero tillage and biological pest control. In 2024, Nestlé scaled the model to 96 more farms along the Garden Route, collectively employing over 1,000 people and indirectly supporting 13,000. This has strengthened regional economies and contributed to South Africa's agricultural productivity, where value added per worker was approximately USD 6,076 in 2022.[27]

Potential next steps for B20 countries

Enhancing access to productivity-boosting technologies is key to agricultural transformation and economic resilience in both LMICs and HICs, though priorities and constraints differ (see Figure 6).

LMIC context

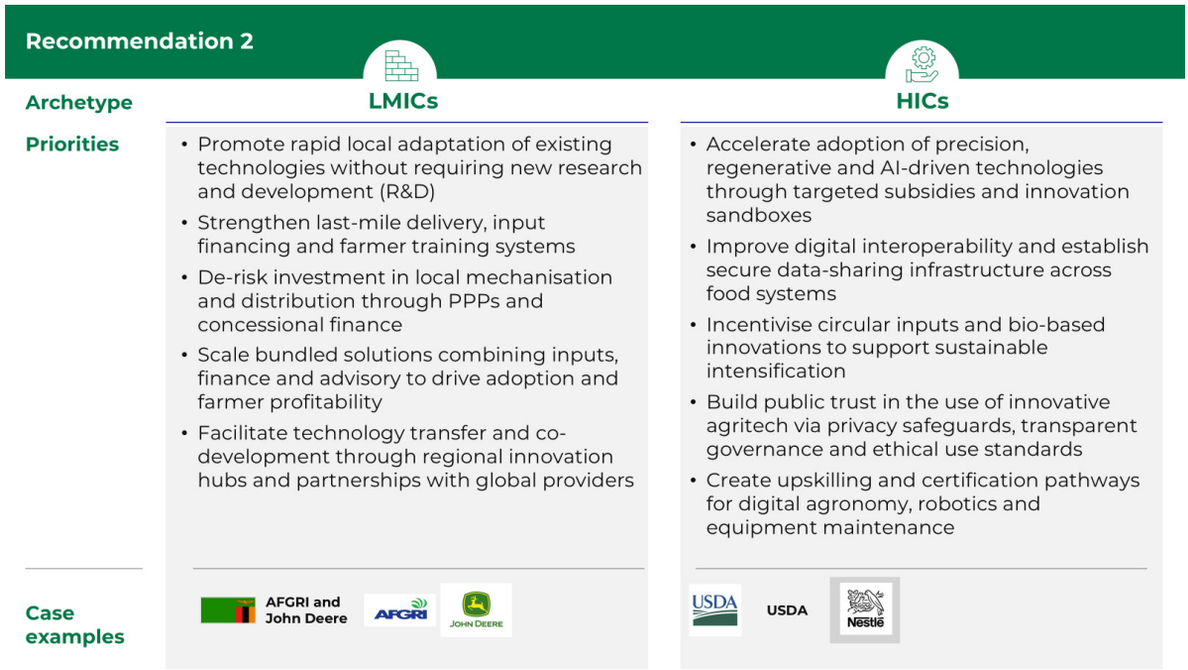
Focus on affordable, accessible technology, last-mile delivery and inclusive finance to overcome infrastructure and market gaps. Collaboration with governments, financiers and farmer networks is essential.

HIC context

Emphasise advanced digital tools, automation and sustainable practices. Align innovation with resilience and inclusion goals through partnerships with research, regulatory and training institutions.

[26] Adu-Baffour, F., Daum, T., & Birner, R. — Can small farms benefit from big companies' initiatives to promote mechanization in Africa? A case study from Zambia (2019).
[27] Nestlé — Developing Nestlé's first Net Zero Dairy Farm in South Africa (2020).

Figure 6: Priorities for LMICs and HICs for Recommendation 2



Strategic priorities for impact area A, beyond 2030

While recommendations 1 and 2 address immediate priorities for enhancing labour and capital productivity, further strategic levers have been identified to support long-term, sustained transformation beyond 2030. One such lever includes fostering innovation in adaptive R&D and global collaboration to share best practices, to accelerate context-specific solutions and knowledge transfer. Advancing long-term agricultural productivity requires sustained investment in adaptive R&D alongside enhanced international collaboration. Key priorities include strengthening national research systems, fostering public-private and academic partnerships, and establishing inclusive regulatory frameworks to develop and scale climate-resilient technologies. Innovations in water stewardship, sustainable inputs and precision farming can significantly boost labour and capital productivity, particularly when tailored to regional needs and delivered through locally embedded institutions. To accelerate agricultural innovation, expand sustainable practices and mobilise large-scale investment, stakeholders should prioritise science-based regulatory frameworks and targeted 4Ps. Scaling platforms for technology transfer, co-developing context-specific solutions and improving coordination across global R&D networks are critical. Investments should focus on building institutional capacity and ensuring knowledge dissemination reaches the last mile, particularly in climate-vulnerable and low-productivity regions. For example, a CGIAR-led programme in Kenya and Nigeria increased potato yields by up to 280% and raised farmers' incomes by USD 500-1,200 per hectare[28] through improved seed varieties and early-generation seed.

[28] CGIAR — Insight to Impact: A Decision-Maker's Guide to Navigating Food System Science (2025).

Impact area B:

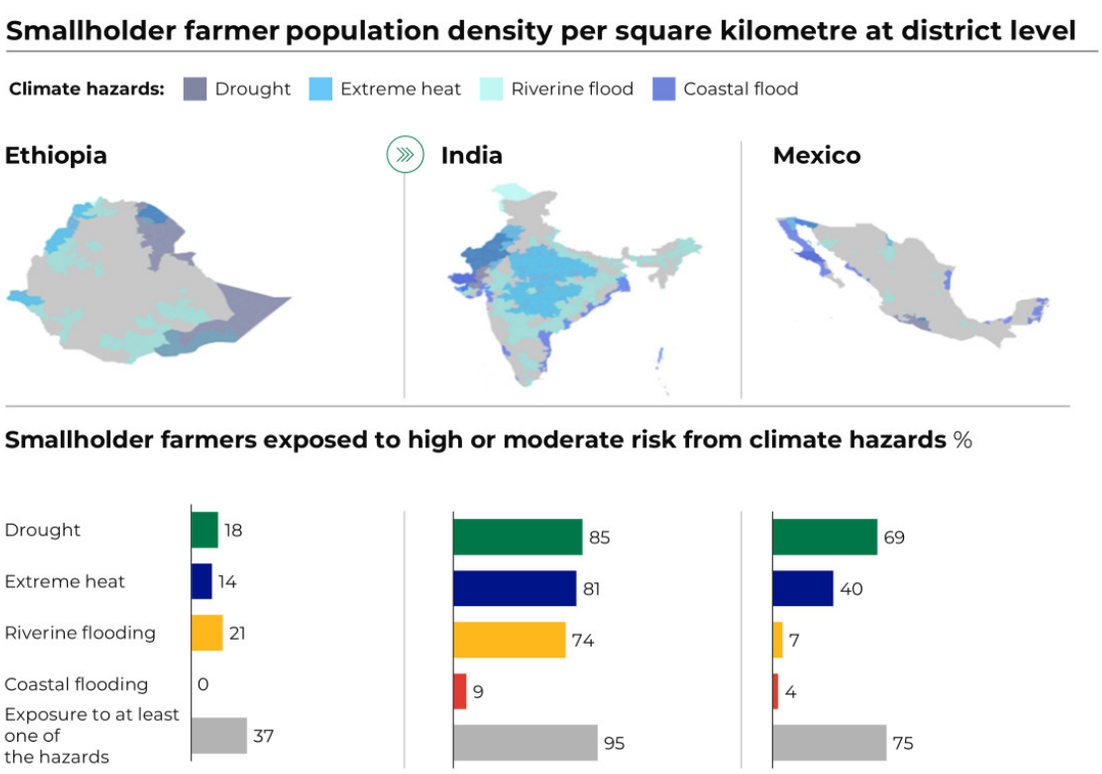
Ensure climate resilience and improve livelihoods

Impact area B: Ensure climate resilience and improve livelihoods

Background to Recommendation 3

Adapting agriculture to climate change while supporting vulnerable groups — such as women, youth and smallholder farmers — is essential for inclusive, resilient food systems. These communities face greater risk due to limited resources and climate shocks. Inclusive livelihoods are strengthened through access to productivity-enhancing technologies (Recommendation 2), helping smallholders build skills and value. Climate impacts vary: India and Mexico have improved resilience with fertilisers and drought-tolerant crops. In Ethiopia, where livestock accounts for 45% of agricultural GDP, solutions must include improved rangelands, water access and veterinary infrastructure. Tailored, context-specific strategies are vital for equitable and lasting food system transformation.

Figure 7: Globally, smallholder farmers face risks from adverse weather events[29]



[29] McKinsey — What climate-smart agriculture means for smallholder farmers (2023).

Recommendation 3:

Promote inclusive and equitable livelihoods: Invest in building more inclusive strategies across the food value chain that intentionally address the climate resilience needs of smallholder farmers, women and youth. Achieve this through tailored financial solutions and capacity building across the value chain. Support these efforts by generating rigorous evidence on their impact.

Action 3.1:

Develop and scale up innovative finance solutions and inclusive investment models to expand access to capital for climate-resilient technologies and inputs for women-led farms, smallholder farmers and agribusinesses, supported by financial literacy and tailored credit solutions.

- **Action 3.1.1:** Scale up asset-based gender-responsive financial products to support women-led SMEs, including farms, food businesses and small-scale producers. Scale up finance solutions, such as group and tailored lending models, that address women's unique financing and entrepreneurship needs. This could include financial literacy and business development services to enable increased access to financing and market participation and support the acquisition of climate-smart agricultural tools.

Action 3.2:

Invest in harmonised data systems to capture the contribution of women and youth across food systems, enabling targeted, inclusive interventions and progress tracking.

- **Action 3.2.1:** Incentivise investment in data collection (including the use of emerging digital tools to expand reach, reduce costs and boost adoption) and scale-up of existing robust data systems that capture the roles, constraints and contributions of women and youth across the food value chain. Harmonise indicators to enable cross-country comparison and align data collection with local contexts to support evidence-based interventions.
- **Action 3.2.2:** Promote rigorous evidence generation, including return on investment analysis and causality assessments, to evaluate the effectiveness of inclusive strategies across the food value chain. Use the evidence to inform the design and scale-up of interventions that address the needs of women, youth and underserved communities.

Headline KPIs to track

KPIs	Baseline	Target	KPI owner
Share of smallholder farmers with access to finance (%)*	Africa: 10% (2019)	33%	FAO
Funding for agriculture from public and philanthropic sources (share of total funding, %)**	LMIC: 3.4% (2023)	10% of governmental budget	OECD

*According to the OECD, the annual SDG investment in Latin America and the Caribbean (LAC) has been able to close the agriculture funding gap by 6-8% annually through over 140 blended finance transactions in LAC's agriculture and forestry sector, mobilising approximately USD 25 billion agri-SME financing and blended and structured finance. If action is taken, applying a similar growth rate of a conservative 5% results in increasing the share of smallholder farmers with access to finance to 25%.

**The available target applies only to public funding. Philanthropic funding is more challenging to identify and monitor, with limited data currently available for tracking purposes.

Potential impact of recommendation

Improved financial access enables smallholder farmers and agri-SMEs to invest in climate-resilient, productivity-boosting inputs and technologies, leading to better yields and higher-value outputs. This typically results in higher incomes, improved food security and poverty reduction. Coupled with knowledge and training, financial access significantly boosts agricultural productivity and contributes to broader societal impacts, including economic growth and food security.

A successful intervention to ensure climate resilience and improve livelihoods could have the following impact:

- **Improved access to finance and reduced gender pay gap:** In Brazil, only 14% of smallholder farmers currently have access to formal financial services. By implementing tailored financial solutions and inclusive investment models, this access could be increased to 35% by 2030.[30] Promoting inclusive strategies and capacity building could also help reduce the wage gap between men and women farmers and increase the share of commercial lending for SMEs in agriculture. In Brazil, women in agriculture earn on average between 20% and 40% less than men. By implementing gender-responsive financial products and inclusive investment models, this wage gap could be reduced to 10% by 2030.[31]

[30] Climate Policy Initiative — Family farming in Brazil (2023).
[31] Inter-American Development Bank (IDB) — Changes in Brazil's gender earning gap: An analysis from 1995 to 2021 (2023).

- **Increased income and resilience for farmers:** Farmerline, a digital platform operating in Benin, Burkina Faso, Côte d'Ivoire, Ghana and Togo, leverages digital tools and local networks to provide 2.2 million small-scale farmers with real-time weather forecasts, market pricing and agronomic advice via mobile technology. Its mission is to create lasting profit for farmers by using tools like Darli AI, Open Finance and Terra to scale up and finance sustainable agriculture. Farmerline strengthens farmer resilience, deepens partnerships, enhances financial inclusion and promotes environmental stewardship through a blended financing model that ensures access to high-quality seeds, fertilisers and equipment. This approach has enabled farmers to achieve 2.5 times higher yields and 3.3 times higher incomes within two years, boosting productivity and adaptability to unpredictable weather.[32]

Potential implications of recommendation for key stakeholders:

- **Government and policymakers (**e.g., ministries of gender, social development and agriculture) may integrate gender- and youth-responsive policies, financial inclusion measures and data systems to support equitable participation in agrifood markets.
- **Financial institutions** (e.g., microfinance providers, commercial banks, cooperative lenders) could design tailored products and risk-sharing mechanisms to expand access to finance for smallholder farmers and women- and youth-led enterprises.
- **Agribusiness associations and value chain actors** (e.g., cooperatives, commodity boards) may promote inclusive sourcing and employment practices, build skills development programmes and facilitate market participation for smallholder farmers and women- and youth-led enterprises.

Successful case studies

HICs — USDA: Advancing women in agriculture through tailored finance and gender-responsive data systems

The USDA's Minority and Women Farmers and Ranchers Loans programme directly addresses systemic barriers by providing tailored credit access. The Direct Farm Ownership Down Payment Loan finances up to 45% of the purchase price and only requires a 5% down payment. This scheme significantly enhances access to finance for smallholder farmers, particularly for women and minority groups. Between 2019 and 2023, the USDA allocated approximately USD 2 billion in financial support to socially disadvantaged farmers and ranchers, including women. Data from the USDA National Agricultural Statistics Service shows that women are playing a growing role in agriculture and contributing significantly to agricultural sales. The 2022 Census of Agriculture reported 1.2 million women producers (36% of all United States producers), and 58% of farms had at least one woman decision-maker. The USDA's commitment to inclusive finance aligns with broader trends in public sector funding. In 2022, the OECD recorded USD 20.9 billion in total official development assistance to agriculture from public and philanthropic sources. Combining tailored financial support with comprehensive data is instrumental in advancing inclusive livelihoods and fostering economic empowerment within United States agriculture.[33]

[32] Forum for the Future — Farmerline scales climate-smart agriculture for smallholder farmers (2024).
[33] USDA Farm Service Agency — Discrimination Financial Assistance Program (2025); USDA Farm Service Agency — 2022 Census.

LMICs — Mastercard Foundation and Agri-Impact Group: Harnessing Agricultural Productivity and Prosperity for Youth (HAPPY) Program in Ghana

In Ghana, the Mastercard Foundation and Agri-Impact Group launched the HAPPY Program to tackle high youth unemployment and reduce reliance on food imports. It does so by investing in more climate-resilient, locally produced food systems. The programme targets four key value chains — rice, poultry, tomato and soybeans — and provides training, access to finance and market linkages to empower youth (70% of whom are women) and persons with disabilities in agriculture. Its success is driven by its inclusive design, strong public-private collaboration and focus on locally impactful sectors. Within 15 months, the programme created over 138,000 jobs and aims to cut the national import bill by USD 164 million while increasing domestic food production by 190,000 tons.[34]

Potential next steps for B20 countries

While both HICs and LMICs strive to create inclusive and equitable food systems, the challenges they face vary significantly. Figure 8 illustrates how priorities differ based on their respective contexts.

LMIC context

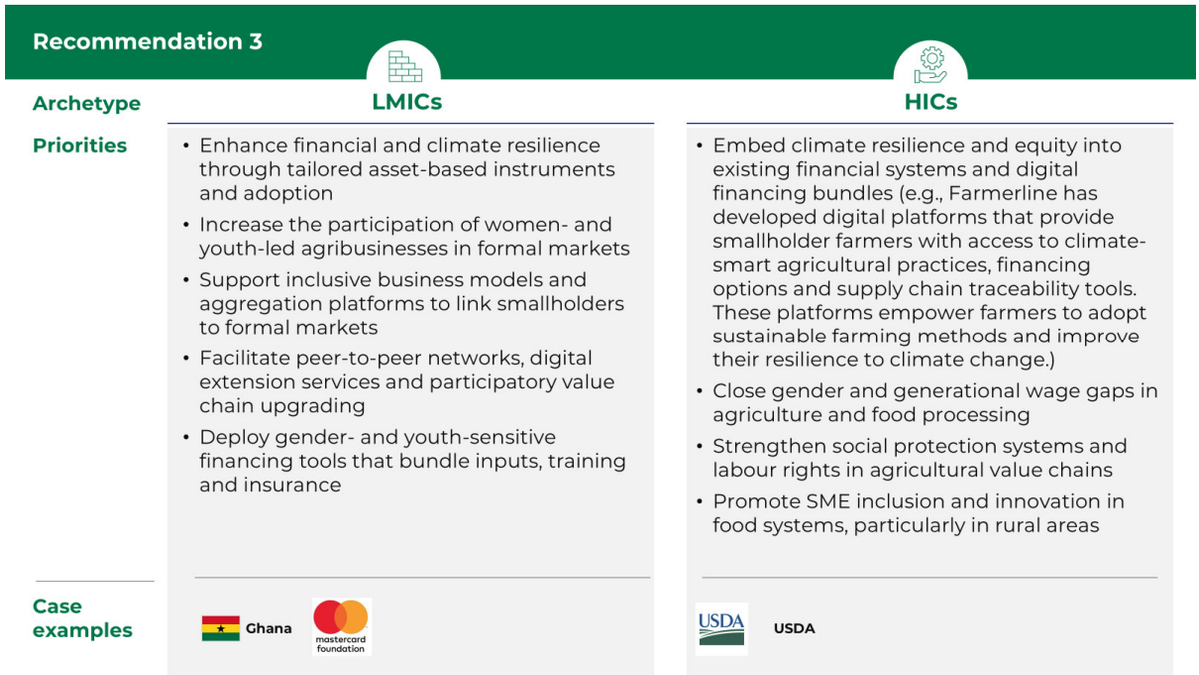
The priority is to address structural inequities, such as limited access to financing for smallholder farmers, women and underrepresented groups, by improving market access through tailored finance, gender-responsive programmes, and the inclusion of smallholder farmers and informal actors. Stakeholders can collaborate with ministries of agriculture, finance, youth and gender equality; national statistics offices; multilateral donors (e.g., IFAD, FAO, Mastercard Foundation); microfinance institutions; rural banks; savings cooperatives; local innovation hubs; and agricultural incubators for youth and employers.

HIC context

HICs focus on addressing rural economic disparities, closing gender pay gaps and improving labour standards in modernised supply chains. While LMICs depend more on development partnerships and donor-backed programmes, HICs prioritise social equity policies, labour regulations and SME innovation incentives. Stakeholders may collaborate with ministries of employment, agriculture and equal opportunity; labour unions; women's cooperatives; rural development agencies; financial regulators; agricultural innovation accelerators; and academic institutions conducting return-on-investment and impact evaluations.

[34] Agri-Impact Group — HAPPY Program (2024).

Figure 8: Priorities for LMICs and HICs for Recommendation 3



Strategic priority areas for impact area B beyond 2030

While Recommendation 3 addresses immediate priorities for ensuring climate resilience and improving livelihoods, further strategic levers have been identified to support long-term, sustained transformation beyond 2030, including the following:

I. **Scaling climate-resilient agricultural technologies and infrastructure:** As climate risks grow, expanding access to resilient inputs and technologies — such as drought-tolerant seeds, precision irrigation and decentralised processing — is essential to safeguard livelihoods and stabilise food systems. These innovations must be supported by local capacity building, Indigenous knowledge and digital tools for data-driven decisions. Investment in both physical (e.g., roads, cold storage) and digital infrastructure is key to strengthening supply chains and reducing vulnerability to global shocks. Efforts should also focus on improving regional demand forecasting, post-harvest systems and tracking the adoption of climate-resilient practices, which are currently underreported. For example, iSDA's AI-powered agronomy advisory has supported over 100,000 farms across Africa, improving yields by up to 1.9 times and profits by 4.7 times through more precise, data-led farming.[35]

[35] iSDA — 17 crops now supported by AI Virtual Agronomist across all African countries (2024).

II. **Expanding financing for climate adaptation in agriculture:** Closing the adaptation finance gap, especially in LMICs, requires accessible, tailored financial tools, such as weather-indexed insurance, blended finance and risk-sharing mechanisms. These should prioritise vulnerable groups and be embedded with social and ecological safeguards. Stakeholders (e.g., governments, research institutions and industry bodies) must translate global commitments into national investment plans and align incentives with climate goals. De-risking strategies are key to unlocking private capital and scaling up proven adaptation solutions. Tracking financial flows and outcomes will be critical to ensure accountability and long-term impact. In Nepal, a joint IFC-Climate Investment Fund programme helped smallholders adopt climate-resilient practices, increasing yields by 20% and household incomes by 30%, and cutting climate-related losses by 40%.[36] Strong local engagement and integrated design underpinned success.

[36] Climate Policy Initiative — Making Adaptation a Private Sector Business: Insights from the Pilot Program for Climate Resilience in Nepal (2013).

Impact area C:

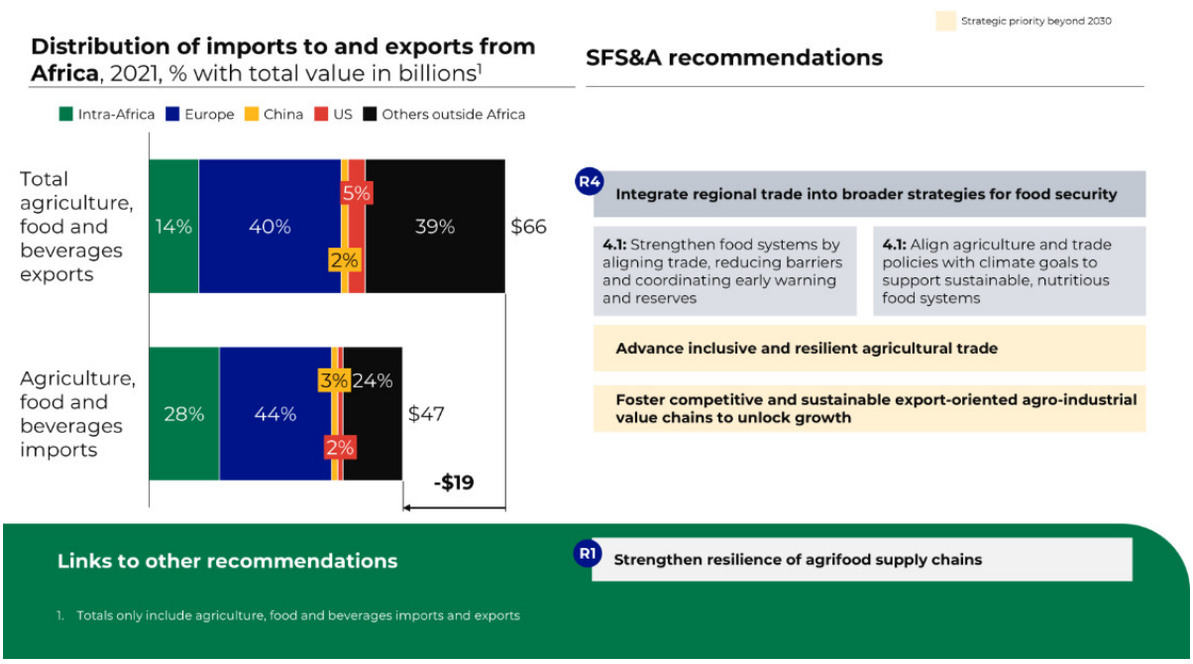
Enable and accelerate trade

Impact area C: Accelerate and enable trade

Background to Recommendation 4

Expanding agricultural trade is essential for economic growth, food security and building resilient, interconnected food systems. Trade enables efficient resource use, opens markets for smallholder farmers, and buffers supply and price shocks — especially during geopolitical or climate-related disruptions. Trade is also closely linked to other recommendations, such as strengthening supply chains (Recommendation 1), with trade acting as a key lever for resilience. However, intra-regional trade remains limited in some regions. In Africa, just 9% of agricultural imports and 15% of exports are intra-continental, compared to much higher levels in the European Union (EU) and ASEAN (see Figure 9 below). This highlights substantial untapped potential. Leveraging frameworks like the African Continental Free Trade Area (AfCFTA) can promote deeper integration, increase agricultural trade and support regional development. Key enablers include harmonised regulations and investment in resilient infrastructure to reduce barriers and foster sustainable growth.

Figure 9: Africa's intra-regional trade remains limited[37]



[37] McKinsey Global Institute — Reimagining economic growth in Africa: Turning diversity into opportunity (2023); UN Commodity Trade Statistics Database (Comtrade) — Distribution of imports to and exports from Africa (2021).

Recommendation 4:

Integrate intra- and inter-regional trade into broader strategies for food security: Embed intra- and inter-regional trade into long-term food security strategies by strengthening trade-enabling infrastructure, coordinating early warning systems, aligning policies and harmonising standards. This includes aligning regional agriculture and trade regulations with international frameworks to reduce trade frictions, strengthen market access and promote sustainable, inclusive trade systems, using emerging digital solutions.

Action 4.1:

Strengthen the resilience of regional food systems by integrating regional trade into food security strategies, safeguarding and strengthening the rules-based multilateral trading system, reducing non-tariff barriers, and coordinating early warning systems and food reserves along trade routes to monitor and respond to climate and conflict risks.

- **Action 4.1.1:** Invest in physical and digital infrastructure, including processing corridors (e.g., roads, one-stop shops, border posts, cold chain infrastructure, low-emission transport technologies, solar-powered cold storage systems and nature-based solutions, such as green buffers and wetlands), agro-processing corridors (agriculture production and farming), and enabling digital infrastructure (e.g., payment systems, blockchain-based traceability solutions, e-certification platforms for sanitary and phytosanitary (SPS) compliance, and paperless customs clearance models) to support inclusive trade.
- **Action 4.1.2:** Create transparency and coordinate regional early warning systems linked to cross-border trade routes (e.g., regional food reserves and balance sheets). Promote regional collaboration, including the use of digital and AI technology. For example, incorporating global initiatives like the Agricultural Market Information System can help monitor market developments and reinforce national and regional responses to commodity price spikes.

Action 4.2:

Harmonise agricultural and trade policy reforms — backed by targeted incentives, to support environmentally aligned, digital trade tools, as well as sustainable food systems, while embedding internationally recognised standards to ensure product safety, reduce certification barriers and enhance cross-border trust.

- **Action 4.2.1:** Harmonise regional trade policies and standards: Align regulatory frameworks with the WTO's SPS Agreement, including the enforcement of rules laid out by its standard-setting organisations: Codex Alimentarius (food safety), the World Organisation for Animal Health (animal health) and the International Plant Protection Convention (plant health). Ensure the digital interoperability of systems to streamline cross-border transactions.
- **Action 4.2.2:** Align agricultural, environmental and trade policies: Integrate climate adaptation and mitigation targets into national agriculture, food security and trade strategies.

Headline KPIs to track

KPIs	Baseline	Target	KPI owner
Share of intra-regional trade from overall trade — Africa (%)	15% (2023)	25% (2040)	UNCTAD, WTO
Share of intra-regional trade from overall trade — ASEAN (%)	22.3% (2022)	Unavailable — see details below*	ASEAN

*No official goal has been set by ASEAN or any other regional bodies other than the AU.

Potential impact of recommendation

Trade plays a critical role in global food security by moving food from surplus to deficit regions, boosting access to diverse, nutritious diets and stabilising supply during crises. However, it also exposes import-dependent countries to risks, such as price volatility and supply disruptions. Strategic trade policies are needed to manage these tradeoffs and support long-term food security:

- **Integrating intra- and inter-regional trade into broader food security strategies:** Integrating intra- and inter-regional trade into food security strategies can boost trade shares and improve food system outcomes, such as the Food Balance Index. For example, Peru's 2009 free trade agreement with the United States led to a 175%[38] increase in agricultural exports, driving job creation, wage growth and a steady reduction in poverty.

[38] World Economic Forum — Food for thought: Globalization's role in ending world hunger (2022).

- **Trade as a safeguard against hunger:** UNCTAD's Trade Against Hunger (2024) highlights that open, predictable and rules-based trade helps stabilise food markets during crises. For instance, mechanisms such as the ASEAN Plus Three Emergency Rice Reserve ensure that rice surpluses are mobilised to deficit regions during climate and market shocks, thereby cushioning vulnerable populations, reducing volatility, and maintaining global market stability.[39]

Potential implications of recommendation for key stakeholders:

- **Government and policymakers** (e.g., ministries of trade, customs authorities) may harmonise trade regulations, invest in enabling infrastructure and coordinate regional partnerships to support resilient and inclusive food systems.
- **Private sector actors** (e.g., trade associations, agrifood trade distributors) could adapt operations to meet harmonised standards, improve compliance and collaborate on market access strategies across borders.
- **International organisations and development partners** (e.g., regional development banks) may offer technical assistance, financing and platforms for cross-border cooperation to align trade integration with food security priorities.

Successful case studies

HICs — EU Common Agricultural Policy (CAP)

The EU's CAP plays a key role in stabilising agricultural markets, ensuring food availability and promoting sustainability across the region.[40] It creates a harmonised environment for farmers, reduces internal trade barriers and fosters fair competition. Reforms have increasingly linked support to environmental goals, enhancing resilience and encouraging sustainable practices. CAP's success is reflected in strong intra-EU trade,[41] which made up about 60% of total trade in goods over the last decade. In 2023, intra-EU trade reached EUR 4.2 trillion, and agrifood exports totalled EUR 228.6 billion, generating a record EUR 70.1 billion trade surplus — underscoring CAP's role in regional food security and economic cohesion.

[39] UNCTAD — Trade against hunger (2024).
[40] European Parliament — EU trade: Trade in goods — GW (2024); Eurostat — EU's top trading partners in 2014: the United States for exports, China for imports (2014).
[41] Eurostat — Intra-EU trade in goods: Main features (2025).

LMICs

I. **ASEAN Integrated Food Security Framework**[42]

To address regional food insecurity and over-reliance on rice, ASEAN implemented the Integrated Food Security Framework and the Strategic Plan of Action on Food Security. This initiative successfully harmonised trade standards and established key mechanisms, such as the ASEAN Plus Three Emergency Rice Reserve and the Food Security Information System. As a result, ASEAN's paddy production grew by an average of 130.46 million tons annually, achieving a consistent growth rate of 2.84%.

II. **Common Market for Eastern and Southern Africa (COMESA): Regional Food Balance Sheet (RFBS)**

The RFBS is a digital tool designed to improve decision-making on food production and trade by visualising key data on production, stocks, trade and pricing. Anchored with COMESA to ensure country ownership, the tool prioritises select countries and commodities and promotes behaviour change. It uses private sector service providers and academic institutions for analytics, with initial philanthropic funding and a partially user-financed model. By enhancing data transparency, the tool could unlock up to USD 1 billion in intra-African trade.

Potential next steps for B20 countries

While trade is a core pillar of global food systems, its potential benefit to food security varies across countries. See Figure 10 for how priorities differ by context.

LMIC context

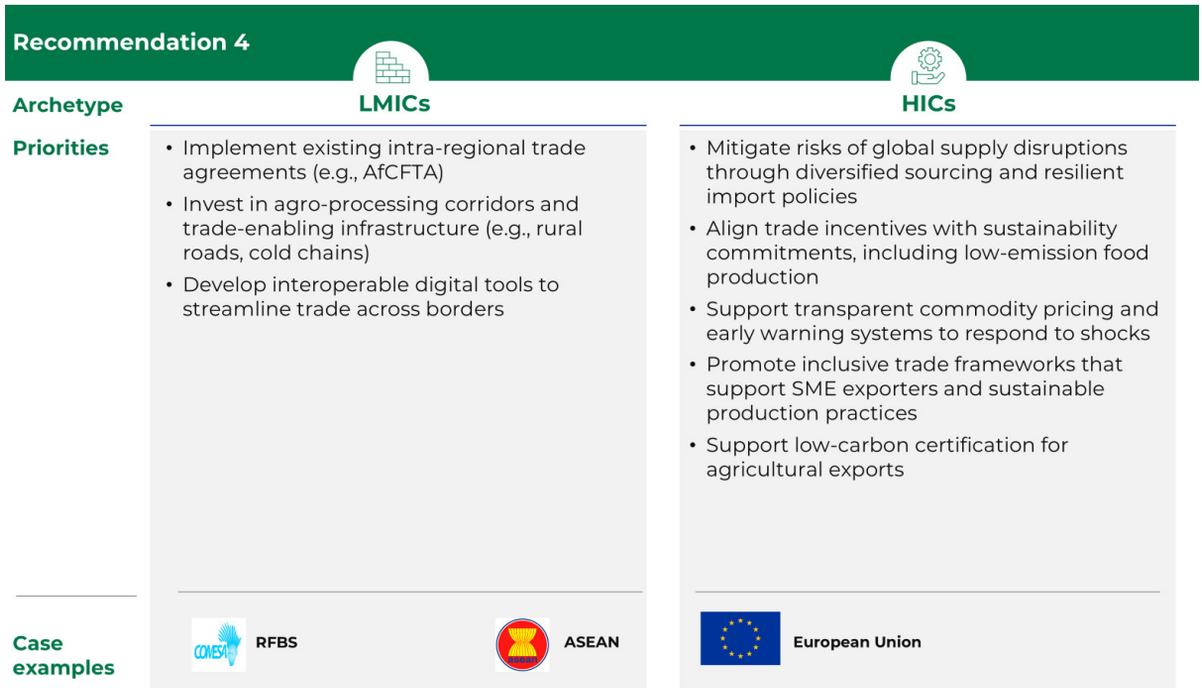
Intra- and inter-regional trade can improve food availability, stabilise markets and strengthen climate resilience, particularly when backed by investments in border infrastructure, harmonised standards and digital trading platforms. Collaboration with regional blocs (e.g., COMESA, the Economic Community of West African States, ASEAN), government ministries, data systems and blended finance institutions, like the Africa Development Bank (AfDB) and Africa Agriculture and Trade Investment Fund, is key to scaling impact.

HIC context

Focus is shifting towards diversified sourcing, aligning trade with sustainability and managing geopolitical disruptions to commodity flows. Strategies like hedging and futures markets help manage price volatility, while better coordination across the agriculture, trade and environment sectors is vital. Collaboration with trade ministries, customs authorities, regional platforms (e.g., the EU Directorate-General for Trade), and observatories like the Agricultural Market Information System and the RFBS can support real-time monitoring and coordinated responses.

[42]Julitasari, E. V. — The overview of ASEAN rice trade toward ASEAN integrated food security (AIFS) (2014); ASEAN — Vision and strategic plan for ASEAN cooperation in food, agriculture and forestry (2016).

Figure 10: Implications for Recommendation 4



Strategic priority areas for impact area C beyond 2030

While Recommendation 4 addresses immediate priorities for accelerating and enabling trade, further strategic levers have been identified to support long-term, sustained transformation beyond 2030. Two of these levers are as follows:

I. **Advancing inclusive and resilient agricultural trade systems:** Inclusive trade is key to resilience, especially for smallholders, women, youth and agri-SMEs. This involves promoting digital marketplaces, simplifying customs for small shipments, and adopting e-certification to reduce costs and improve access to cross-border value chains. A fair multilateral system led by the WTO is crucial. The B20 supports WTO reform, Trade Facilitation Agreement (TFA) implementation and reduction of trade barriers. Aligning policies with global standards, upgrading border infrastructure and using cooperative aggregator models can improve efficiency. Initiatives like the USD 3 billion[43] Lobito Corridor show how 4P models enhance trade, connectivity and SME integration.

[43] OECD — Background Note: The Lobito Corridor, OECD Emerging Markets Forum, April 2025.

II. **Scaling sustainable export-oriented agro-industrial value chains:** Countries can boost climate-smart, competitive agriculture by developing agro-processing corridors near high-yield areas linked to logistics hubs. These corridors support value addition, sustainable practices and inclusion. Blended finance should fund green processing, food safety labs and rural infrastructure. Linking smallholders to processors via long-term contracts and technical support ensures inclusivity. In Ukraine, a Swiss-backed programme grew organic exports and market access, raising premiums by 20-40% and scaling certified organic land to 400,000 hectares.[44]

[44] UN Environmental Programme (UNEP) — Sowing seeds of organic growth for Ukraine (2016).

Impact area D

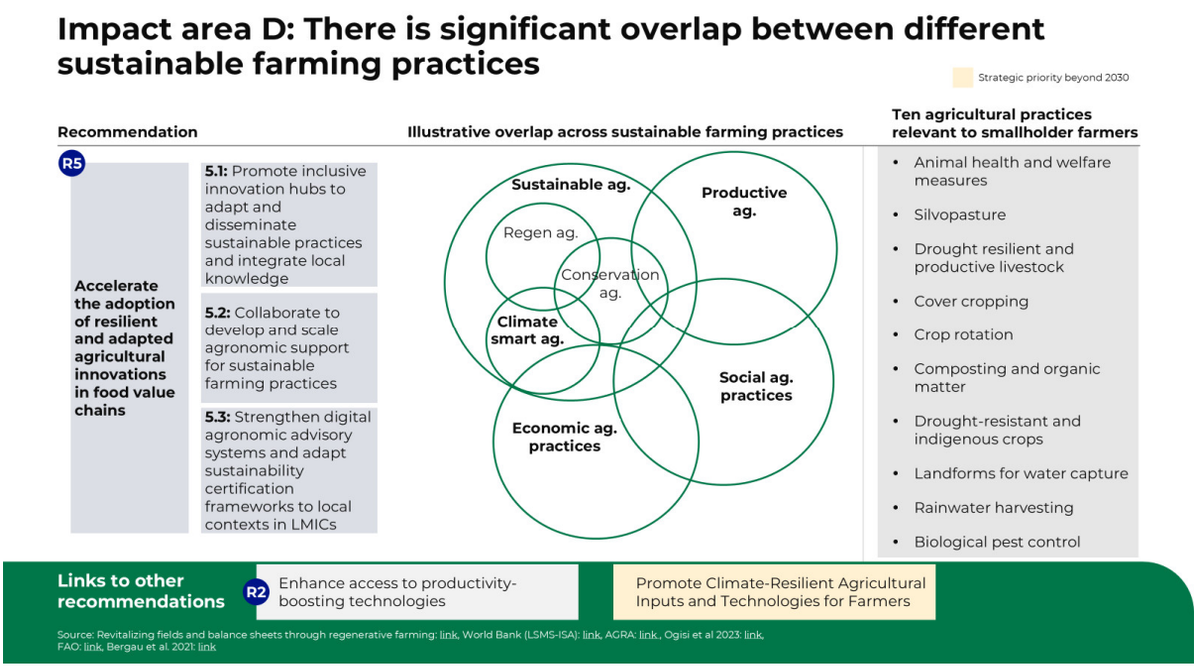
Promote sustainable agricultural practices

Impact area D: Promote sustainable agricultural practices

Background to Recommendation 5

To meet global food demand by 2030, up to 80 million hectares of new cropland may be needed, 70% of it in Africa and Latin America. Without sustainable practices, this could lead to deforestation, biodiversity loss and higher emissions, threatening climate and food security. Sustainable agriculture balances productivity with environmental protection.[45] Practices such as agroforestry, crop rotation and improved water and livestock management are especially relevant for smallholders and help restore ecosystems and build resilience. Scaling these solutions requires alignment on priority practices, supported by cross-cutting enablers, such as innovation and 4Ps, to enable lasting impact (see Figure 11 below).

Figure 11: Sustainable agricultural practice overlaps[46]



[45] McKinsey — Striking the balance: Catalysing a sustainable land-use transition (2023).

[46] AGRA — Extension strategy: AGRA's private sector-led approach to extension (2020); Bergau, S., Loos, T.K. & Sariyev, O. — On and off-farm diversification and travel time to markets: Linkages to food security in rural Ethiopia (2022) ; FAO — Smallholders and family farmers (2012); McKinsey — Revitalizing fields and balance sheets through regenerative farming (2024); Ogisi, O.D. & Begho, T. — Adoption of climate-smart agricultural practices in Sub-Saharan Africa: A review of the progress, barriers, gender differences and recommendations (2023) ; World Bank — Access to credit is limited (n.d.).

Recommendation 5:

Accelerate the adoption of resilient and adapted agricultural innovations in food value chains: Promote regenerative agricultural practices and certifications that are science-based and risk-informed for businesses of all sizes across the food value chain. Strengthen public and private digital agronomic advisory systems in partnership with the private sector to ensure effective uptake of these innovations, particularly in LMICs.

Action 5.1:

Promote inclusive innovation hubs to co-develop, adapt and disseminate sustainable practices while integrating local and Indigenous knowledge.

- **Action 5.1.1:** Establish easily accessible innovation platforms and knowledge hubs that connect researchers, private sector innovators, extension agents and farmers to co-develop and disseminate sustainable practices. Promote hands-on training, context-specific digital tools and inclusive knowledge-sharing that integrates Indigenous knowledge systems.

Action 5.2:

Collaborate with G20 countries to drive investment in developing and scaling agronomic support for sustainable farming practices.

- **Action 5.2.1:** Invest in and promote international collaboration with G20 countries to develop and disseminate sustainable agricultural practices. This includes facilitating producers' access to technical assistance on sustainable and resilient agricultural practices.

Action 5.3:

Strengthen public and private digital agronomic advisory systems in partnership with the private sector and adapt sustainability certification frameworks to local contexts, particularly in LMICs, to ensure that they are practical and profitable and drive the effective uptake of sustainable agricultural practices.

- **Action 5.3.1:** Strengthen accessible digital agronomic advisory systems and tailor sustainability standards to the needs of producers and processors in LMICs. Develop and scale up accessible, context-relevant and economically rewarding digital agronomic advisory platforms that provide farmers and food processors with actionable insights on sustainable practices. Integrate these platforms with regionally adapted sustainability certifications to ensure that they are practical and profitable. Foster

collaboration among standard-setting bodies, development partners, agrifood buyers and technology providers to co-develop digital tools and certification systems that support the adoption of regenerative and climate-smart agriculture.

Headline KPIs to track

KPIs	Baseline	Target	KPI owner
Emission intensity of food products (CO2/kg)	Based on product type	43% reduction based on product type	FAO
Progress towards productive and sustainable agriculture (scale score out of 5)[47]	3.99 (2023)	5 (2030)	FAO

Potential impact of recommendation

A successful intervention to accelerate the adoption of resilient and adapted agricultural innovations, for example in Brazil, could significantly enhance progress towards productive and sustainable agriculture and reduce the emission intensity of food products:

- **Reducing emission intensity through climate-smart practices:** Currently, Brazil's emission intensity of aggregated food products is estimated at 2.5 kilogrammes of carbon dioxide per kilogramme of produce. Over the past decade, the adoption of climate-smart agricultural practices, such as agroforestry and integrated crop-livestock systems, has already significantly reduced this emission intensity. By further promoting these practices and strengthening digital agronomic advisory systems, Brazil could achieve an additional 20% reduction in emission intensity by 2030, bringing it down to 2 kilogrammes of carbon dioxide per kilogramme of produce, thereby contributing to global climate goals.[48]
- **Enhancing adoption through digital agronomic advisory systems:** Strengthening public and private digital agronomic advisory systems can enhance the uptake of sustainable practices. For example, implementing AI-powered extension agents and digital platforms could enable Brazilian farmers to adopt climate-smart agricultural practices more effectively. This could increase farmer income by 25% and reduce input costs by 20% by 2030.[49] By leveraging digital solutions, Brazil can improve the resilience and productivity of its agricultural sector, ensuring food security and sustainable development.

[47] FAO — Indicator 2.4.1 Proxy — Progress towards productive and sustainable agriculture (n.d.).
[48] USDA — Brazil new plan for climate change adaptation and low carbon emission in agriculture (2021).
[49] Geng, W., Liu, L., Zhao, J., Kang, X., & Wang, W. — Digital technologies adoption and economic benefits in agriculture: A mixed-methods approach (2024).

Potential implications of recommendation for key stakeholders:

- **Government and policymakers** (e.g., ministries of environment, agriculture regulators) could develop enabling regulations, incentives and partnerships to advance sustainable certifications and resilient farming systems.
- **Technology providers** (e.g., agritech firms, digital advisory platforms) may focus on designing scalable, locally relevant solutions and delivering technical support to help producers adopt resilient practices across value chains.
- **Academic and research institutions** (e.g., agricultural universities, research councils) may expand research on climate-smart and regenerative practices, support demonstration projects and build advisory capacity for effective innovation uptake.

Successful case studies

HICs — PepsiCo: Archer Daniels Midland (ADM) partnership for regenerative agriculture

The PepsiCo-ADM partnership, part of the One Planet Business for Biodiversity coalition, is advancing regenerative agriculture across up to two million acres in the United States Midwest. Focused on corn and soybeans, the programme supports farmers through training, upfront investment, peer coaching and cost-sharing to ease transition risks. It has improved livelihoods for over 11,000 people, enhanced water-use efficiency (achieving 14% of PepsiCo's 2025 target), and is set to cut 1.4 million metric tons of greenhouse gas emissions annually. The initiative strengthens farm profitability, soil health and biodiversity — showcasing scalable, private-sector-led sustainable agriculture.[50]

LMICs

I. **Digital Green's AI-powered extension agents[51]**

Digital Green's AI assistant supports extension agents in countries like Ethiopia, Kenya, India and Nepal by delivering tailored, local-language agricultural advice. It integrates climate data and forecasts to help farmers adopt climate-smart practices, boosting resilience and sustainability. The tool has improved farmer income by 20%, cut input costs by 16% and supported investments in climate-resilient infrastructure. Its success lies in its locally adapted, farmer-centric design and seamless integration into public extension systems, extending advanced technology to underserved rural areas.

[50] ADM — PepsiCo, ADM announce groundbreaking agreement aiming to reduce carbon intensity by supporting regenerative agriculture practices on up to 2 million acres of farmland (2022), PepsiCo — Sustainability report for period 2022-12-31.
[51] Digital Green — How we work (2025).

II. Cargill and Initiative 20x20 in Brazil[52]

Cargill has actively supported Initiative 20x20 by committing USD 1.8 million to the World Resources Institute, the initiative's secretariat. This funding aids in scaling up restoration projects and innovative business models, particularly in Brazil's Amazon and Cerrado biomes. Efforts include establishing a 146,400-hectare carbon concession in Rondônia, developing native species propagation for 50,000 hectares and implementing agroforestry programmes across 280,000 hectares. These initiatives aim to restore and conserve approximately 476,400 hectares, contributing to the broader goals of Initiative 20x20.

Potential next steps for B20 countries

The uptake of resilient and adaptive agricultural innovations varies significantly across countries; Figure 12 shows how priorities differ by context.

LMIC context

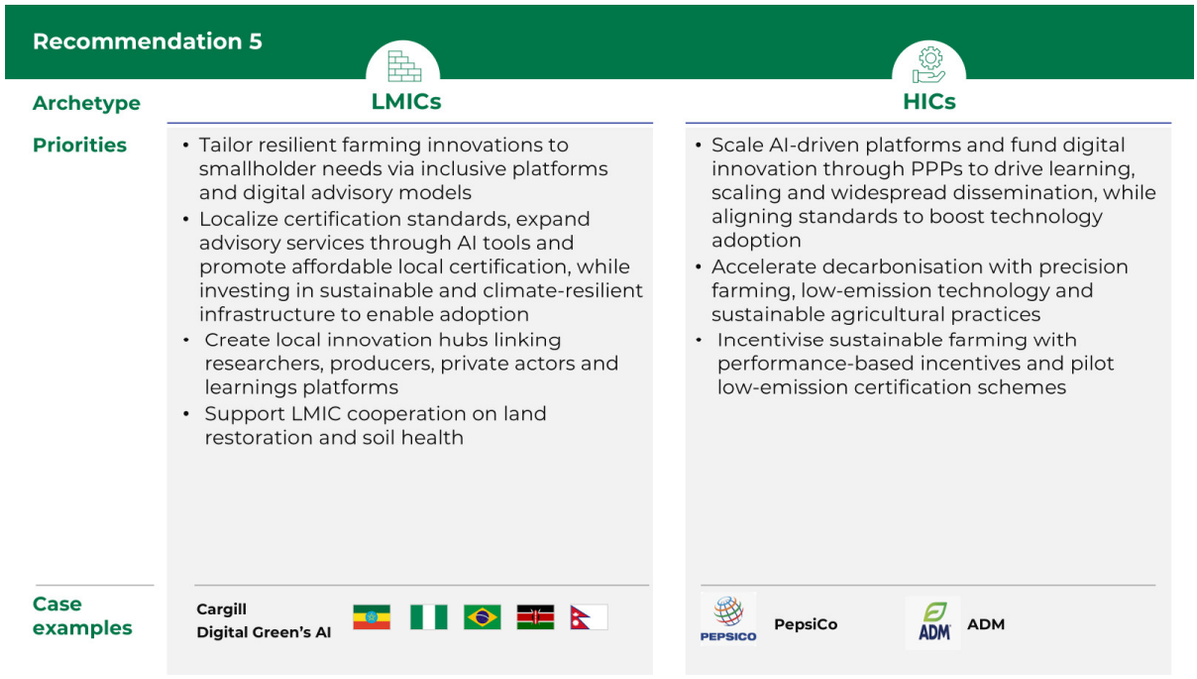
LMICs face key constraints to innovation — such as infrastructure gaps, limited advisory support and financing challenges — but hold high-impact potential when solutions are tailored to local needs. Inclusive models like public-private platforms, regional certification and farmer-centred advisory systems are essential. The private sector should partner with ministries, research institutions, farmer cooperatives and development financiers (e.g., IFAD, FAO, the World Bank). Sharing global knowledge and aligning sustainability standards with local realities is vital for advancing regenerative, climate-resilient agriculture.

HIC context

In HICs, innovation focuses on precision agriculture, environmental sustainability and integrating technologies like robotics and AI. The private sector can drive impact by partnering with agrotech hubs, research consortia, extension systems, regulators and R&D coalitions to scale tailored advisory and certification services.

[52] Cargill — The Cerrado (2025).

Figure 12: Implications for Recommendation 5



Cross-cutting enablers

Delivering the SFS&A agenda depends on four vital enablers: 4Ps, innovation ecosystems, digital access and harmonised regulations. These are not standalone inputs, but strategic levers for food security and value chain transformation. Coordinated action across task forces is essential to drive systemic change and scale impact.

Enabler 1: 4Ps

4Ps are vital to advancing sustainable agriculture and directly support the task force's recommendations. PPPs align incentives, with governments providing reforms and governance, while the private sector brings investment, delivery and innovation. For example, Peru's USD 24 billion irrigation PPPs aim to expand farmland by one million hectares to boost productivity and exports.[53] Philanthropic actors add value by addressing systemic challenges with funding and social impact expertise. Effective 4Ps unite diverse stakeholders, develop markets and coordinate large-scale commitments. One such example is Initiative 20x20,[54] which brings together Cargill, governments, investors and non-governmental organisations to restore 50 million hectares of land in LAC by 2030. This approach supports the B20 Finance and Infrastructure Task Force's call to expand investable infrastructure and improve capital access. Related B20 task forces highlight the role of innovative finance, market integration and green investment certainty in mobilising private capital.

Enabler 2: Innovation

Innovation in products, services and business models is key to making agriculture more sustainable, resilient and inclusive. Advances such as climate-resilient seeds, adaptive irrigation, bundled agro-services and business models that link smallholders to markets and finance can boost productivity and reduce environmental impact.

Examples include drought-tolerant crops, embedded advisory and insurance services, pay-as-you-go mechanisation, and platforms like the Khula Smart Farming app, which integrates input supply, market access and financing. These innovations can improve economic outcomes by over 30% when supported by enabling ecosystems.[55] This aligns with the B20 Finance and Infrastructure Task Force's goals to expand investable infrastructure, improve capital access and address project pipeline bottlenecks. The B20 Trade and Investment Task Force also highlights the importance of innovative finance, market integration and policy certainty — especially for green investments. Success depends on strong 4Ps, skills development and resilient infrastructure to enable sustainable food systems and a just energy transition.

[53] Reuters — Peru to spend $24 billion on irrigation to expand farmlands (2025).
[54] Cargill — The Cerrado (2025).
[55] Geng, W., Liu, L., Zhao, J., Kang, X., & Wang, W. — Digital technologies adoption and economic benefits in agriculture: A mixed-methods approach (2024); Khula — [Smart financing starts here] (2025).

Enabler 3: Harmonisation of regulatory frameworks

Harmonising food and agriculture regulations and aligning with international standards, such as the SPS Agreement, could play an important role in supporting the implementation of the five recommendations. Simplifying and harmonising SPS measures within and among regional blocs (e.g., the AfCFTA and ASEAN) addresses regulatory fragmentation, which disrupts trade, hinders innovation and increases compliance costs, particularly for agricultural producers in EMDEs. Transparent, predictable and evidence-based regulatory frameworks can facilitate both regional and international trade and enable the responsible scaling of new agricultural technologies across borders. Consistent and transparent regulatory frameworks can facilitate both regional and international trade. Establishing global agricultural trade harmonisation councils, tasked with coordinating timelines, managing dispute resolution and supporting LMICs (e.g., through farmer protection organisations), can help ensure that food products meet safety and quality standards, foster trading partner and stakeholder trust, reduce trade barriers and promote sustainable agricultural practices. Harmonised regulations enable the effective dissemination of productivity-boosting technologies and innovations, address diverse community needs and strengthen the resilience of agrifood supply chains. They also foster frameworks, market certainty, attract private investment, scale up adaptation finance and align national strategies with climate resilience and transition goals.[56]

Enabler 4: Access to financing and infrastructure

Affordable, long-term capital and resilient infrastructure are vital for sustainable food systems. In emerging markets, high capital costs, limited credit, low digital literacy and weak financial systems constrain investment, particularly for smallholders and early-stage agribusinesses. The World Bank's M300 initiative aims to mobilise USD 300 billion in private investment by 2030 for agricultural development. Governments and development banks should expand blended finance and de-risking tools, such as guarantees and co-investment funds, to stimulate private lending, with institutional investors like sovereign wealth and pension funds playing a supporting role. In Sub-Saharan Africa, examples include the AAF, which supports agricultural production and SMEs through blended finance with backing from the European Commission. IFAD has further supported these efforts by technically assisting AAF portfolio companies and partnering with the AfDB on initiatives to boost agricultural productivity across the continent, also backing the Agri-Business Capital Fund, which similarly uses blended capital.[57] These examples highlight the potential of innovative financing. Likewise, Access Bank's issuance of Africa's first certified corporate green bond, raising NGN 15 billion (approximately USD 41 million) for water infrastructure, solar power and flood mitigation, set a precedent in Nigeria's financial market for sustainable investment for critical development needs.[58]

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[56] WTO — Understanding the WTO Agreement on Sanitary and Phytosanitary Measures (2024); AU SPS Policy Framework (2022).
[57] AfDB — Press release: The Africa Fertilizer Financing Mechanism receives $7.3 million to boost agricultural productivity and smallholder farmers' income (2024).
[58] Access Bank Green Bond: banking on in-house competence and international frameworks (2020); Access Bank — Green Bond Annual Impact Report (2023).

Conclusion

In an era of unprecedented challenges, the imperative to transform global food systems has never been more urgent. The SFS&A Task Force presents a visionary yet actionable framework, positioning agriculture as a cornerstone for future sustainability, resilience and equity. For stakeholders across the board, the opportunity now is to move from discussion to implementation by aligning goals, forming partnerships and integrating sustainable agriculture into broader environmental and economic strategies. The moment demands bold collaboration and a collective journey, one in which governments, businesses, civil society, farmers and international institutions work together to drive systemic change, scale proven solutions and ensure that no community is left behind in the transition to a more just and sustainable food future.

To advance this vision, G20 leaders are encouraged to consider adopting the task force's recommendations and collaborate with the private sector on implementation and follow-up. Platforms such as the International Chamber of Commerce (ICC) Agri-Food Initiative can play a valuable role in translating policy into action and sustaining momentum through delivery.

Abbreviations and Glossary

Abbreviations

4Ps	Public-Private-Philanthropic Partnerships
AAF	African Agriculture Fund
AGRA	Alliance for a Green Revolution in Africa
AI	Artificial Intelligence
ASEAN	Association of Southeast Asian Nations
AU	African Union
AfCFTA	African Continental Free Trade Area
B20	Business 20
CAP	Common Agricultural Policy (EU)
CIG	Conservation Innovation Grants
COMESA	Common Market for Eastern and Southern Africa
EMDEs	Emerging Markets and Developing Economies
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GNI	Gross National Income
HICs	High-Income Countries
ICC	International Chamber of Commerce
ICT	Information and Communication Technology
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
KPI	Key Performance Indicator
LAC	Latin America and the Caribbean
LMICs	Low- and Middle-Income Countries
NCDEX	National Commodity and Derivatives Exchange

NGN	Nigerian Naira
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
R&D	Research and Development
RFBS	Regional Food Balance Sheet
SDGs	Sustainable Development Goals
SFS&A	Sustainable Food Systems & Agriculture
SMEs	Small and Medium-sized Enterprises
SPS	Sanitary and Phytosanitary
TFA	Trade Facilitation Agreement
UN	United Nations
UNCATD	United Nations Conference on Trade and Development
USD	United States Dollar
USDA	United States Department of Agriculture
WTO	World Trade Organization

Glossary

Agrifood	Encompasses the entire food value chain, including agriculture, processing, distribution, and retail
Agro-processing	The transformation of raw agricultural products into consumable or usable products through industrial or semi-industrial processes
Agroforestry	An integrated approach combining trees and shrubs with crops and livestock farming systems
Climate-smart agriculture	Farming practices that increase productivity, enhance resilience to climate change, and reduce greenhouse gas emissions
Deforestation	The large-scale removal of forest, often to use land for non-forest purposes such as agriculture
Generative AI	Artificial intelligence models capable of creating new content such as text, images, or designs, used in agricultural innovation and decision support
Hermetic storage	Sealed storage systems that prevent air, moisture, and pest entry to reduce post-harvest losses
Inter-regional trade	Trade between different geographic regions, such as Africa and Europe

Intra-regional trade	Trade occurring within a specific geographic region, such as among African countries under AfCFTA
Least developed countries	Countries classified by the United Nations as having the lowest indicators of socioeconomic development, with structural challenges in income, human assets, and economic vulnerability
Net-zero dairy farming	Dairy production systems designed to balance emissions with mitigation measures to achieve carbon neutrality
Precision farming	Farming management using technology (GPS, sensors, AI) to observe, measure, and respond to variability in crops and livestock
Regenerative agriculture	Farming practices that restore soil health, biodiversity, and ecosystems while maintaining productivity
Sub-Saharan Africa	A geographic region of Africa located south of the Sahara Desert, often highlighted in development, economic, and agricultural discussions
Supply chain resilience	The ability of a food system to withstand and recover from disruptions, such as climate shocks or trade interruptions
Sustainability certification	Verification that agricultural practices meet environmental, social, and economic standards
Value addition	Increasing the economic value of agricultural products by processing, packaging, or branding before they reach consumers

Annexure 1: Aspirational KPIs

Aspirational KPIs are directional metrics that reflect collective ambition across the recommendations. While not always tracked consistently due to data gaps or limited global frameworks, they serve as guiding benchmarks to align governments, businesses and stakeholders. These KPIs foster accountability, inspire joint action and help measure systemic progress over time.

Recommendation 1:

KPI	Tracking organisation	Limitation
Farm output value per hectare (USD/hectare)	FAO	The data for this indicator is not comprehensive or up to date. The latest global data is from 2016, and it covers only 60% of G20 member states. Data is particularly sparse for LMICs, including many AU members, and varying methodologies across countries hinder reliable comparisons.
Reduction in post-harvest loss (%)	FAO	This KPI, tracked by the FAO's Food Loss and Waste Database, covers only 42 countries globally and fewer than 25% of AU member states. It focuses on a few crops and has limited data on livestock or fisheries. Historical data is sparse. Some countries' most recent data dates back to 2010, and no aggregated national-level indicators are available, which reduces its policymaking utility.
Proportion of agricultural area under productive and sustainable agriculture (%)	FAO	This KPI, tracked by the FAO's SDG Indicators Database only, is tracked by seven countries as of 2023, none within Africa. Historical data is sparse with data only available post 2021.

Recommendation 2:

KPI	Tracking organisation	Limitation
Farm output value per hectare (USD/hectare)	FAO	The data for this indicator is not comprehensive or up to date. See Recommendation 1 aspirational KPIs for more details.

Recommendation 3:

KPI	Tracking organisation	Limitation
Wage rate in agriculture (USD/hour)	ILO	The most recent data is from 2018, and it covers only 50% of G20 member states and fewer than 20% of AU member states. Data is not disaggregated by farm size, crop type or employment type.
Wage gap between men and women farmers (%)	ILO	The most recent data is from 2017, and it covers only 40% of G20 member states and fewer than 15% of AU member states. Data is often aggregated across sectors and excludes informal agricultural work.
Share of commercial lending for SMEs in agriculture (share of total lending, %)	N/A	Not widely tracked globally. Limited data is available through sources like the World Bank's Enterprise Surveys, which cover only 30% of G20 member states and fewer than 10% of AU member states. The definition of "SMEs in agriculture" varies, complicating data collection and comparability.

Recommendation 4:

KPI	Tracking organisation	Limitation
Food Balance Index	Proposed by B20 Brazil to assess a country's food security situation in the context of international trade	This indicator is currently not defined or tracked by any organisation, and there is no standardised methodology for calculating it.

Recommendation 5:

KPI	Tracking organisation	Limitation
Forest area annual change rate (%)	Global Forest Watch	Tracked by Global Forest Watch, covers approximately 85% of G20 but fewer than 50% of AU member states, with the latest data from 2021. Attribution is difficult, as agriculture drives approximately 70% of tropical deforestation, while 30% stems from mining, logging and urban expansion. Data quality is also impacted by outdated technology and limited ground-truthing in low-income countries.

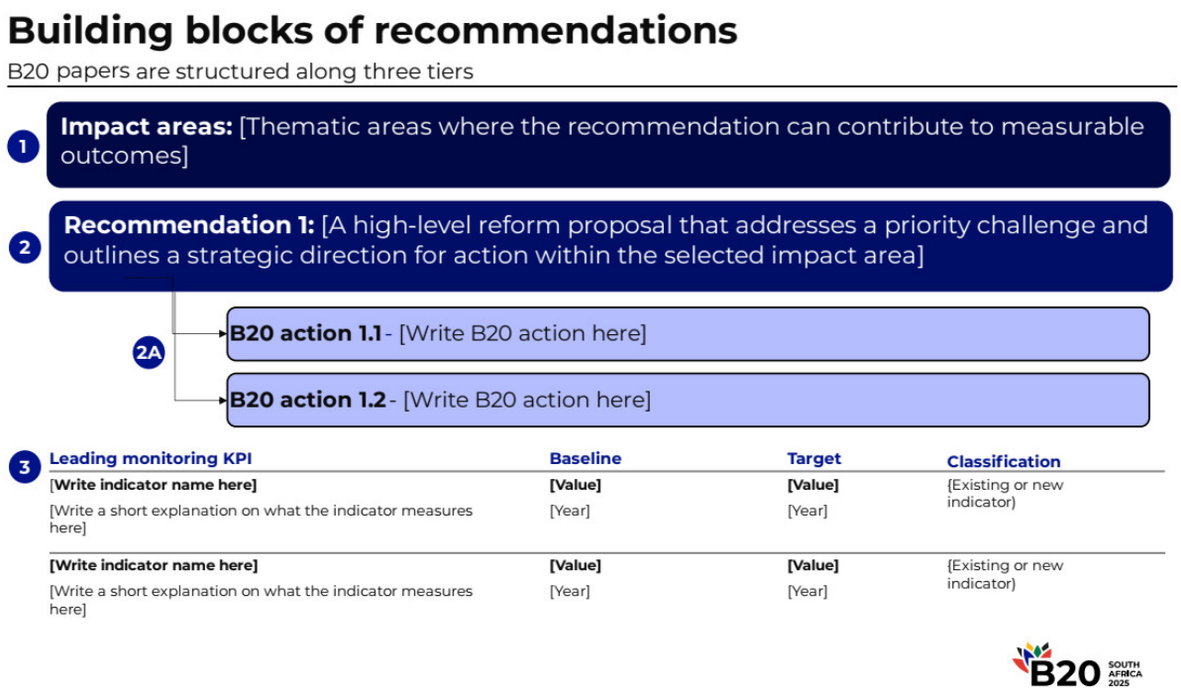
Annexure 2: B20 paper approach

B20 paper approach and methodology

These recommendations result from a rigorous and iterative process that analysed global trends reshaping food systems, identified high-impact areas for businesses to boost competitiveness and growth, and tailored specific, measurable actions to address the problem statement. In line with previous B20 cycles, the B20 South Africa SFS&A Task Force paper draws on 17 research papers, five subject matter expert interviews, and feedback from the Task Force Working Group and network partners to develop actionable recommendations through a three-part approach:

- **Landscape analysis:** Assessing disruptive trends shaping food systems and agriculture to inform the context and case for change
- **Opportunity mapping:** Pinpointing high-impact areas to enhance labour and capital productivity, climate resilience, livelihoods, trade and sustainable agricultural practices, illustrated through successful case studies
- **Recommendation shaping**: Distilling key success factors into prioritised actions, KPIs and implementation pathways

Figure 13: B20 paper structure



The development of this paper followed a structured and comprehensive research methodology. This approach ensured that the recommendations and proposed actions are data-driven, relevant and aligned with global and regional trends.

Annexure 3: Stakeholder list

Stakeholder list — SFS&A Task Force

Task force role	Name	Position	Organisation	Country
Chair	Debra Mallowah	Head of Africa	Bayer Crop Sciences	Kenya
Deputy	Mildred Nadah Pita	Head of Public Affairs, Science & Sustainability, Africa	Bayer Crop Sciences	Kenya
Co-chair	Nicole Roos	MD and Chair	Nestlé	South Africa
Co-chair	Seelan Gobalsamy	Group CEO	Omnia	South Africa
Co-chair	Emily Rees	President and CEO	CropLife International	Belgium
Co-chair	Alice Ruhweza	President	AGRA	Kenya
Co-chair	Yasmin Masithela	Interim CEO	Absa CIB	South Africa
Co-chair	Bernardo Silva	CEO	Sinprifert	Brazil
Co-chair	Ajay Shriram	Chair and Senior Managing Director	DCM Shriram	India
Co-chair	Gilberto Tomazoni	CEO	JBS	Brazil
Subject matter expert	Tjaart Kruger	CEO	Tiger Brands	South Africa
Subject matter expert	Prof. Darlene Miller	Associate Professor	UNISA	South Africa
Subject matter expert	Omid	Kassiri	Independent	Kenya
Subject matter expert	Lindiwe Sibanda	Board Chair	CGIAR	Zimbabwe

SFS&A Task Force members

Name	Position	Organisation	Country
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Achmad Solikhin	Researcher	Economic Research Institute for ASEAN and East Asia	Indonesia
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Andrey Guryev	President	Russian Fertilizers Producers Association	Russian Federation
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Name	Position	Organisation	Country
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Dmitry Konyaev	CEO	JSC UCC Uralchem	Russian Federation
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Handsome Mhungu	Director	National Pies	Zimbabwe
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Iacopo Meghini	President and CEO	Metalmont srl	Italy
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Name	Position	Organisation	Country
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Mary Ann Parr	CEO	The U Can Company	South Africa
Matlou Setati	Executive, Food Safety & Sustainability Initiative	Consumer Goods Council of South Africa	South Africa

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Name	Position	Organisation	Country
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Nomfanelo Magwentshu	Public Sector Executive	African Bank	South Africa
Nomfanelo Magwentshu	Executive	African Bank	South Africa
Ntuthu Mbiko	Agriculture Sector Head	Women Economic Assembly	South Africa
Odette Hartslief	Director, Public Policy and Government Affairs	PepsiCo	South Africa
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Prof Lindiwe Majele Sibanda	Chair, CGIAR Integrated Partnership Board	CGIAR	Zimbabwe

Name	Position	Organisation	Country
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Robbyn Lindsay Richards	Industry Affairs South Africa	Illovo Sugar SA	South Africa
Rokas Morkunas	Director, Policy and Member Engagement	Business at OECD (BIAC)	Lithuania
Roux Wildenboer	Sector Head Agriculture	Absa Corporate and Investment Bank	South Africa
Samira Amellal	CEO/Director General	CropLife Africa Middle East	France
Samuel Kamau Nganga	Manager	IFC	Kenya
Sanjeev Raghubir	Chief Sustainability Officer	The Shoprite Group	South Africa
Sean Walsh	CEO	KAL Group (Agrimark Operations)	South Africa
Sebastian Esteban Ferrari	ICC Global Network Lead for Agri-Food	ICC	Italy
Sergey Kudryashov	Chief Sustainability Officer	PJSC PhosAgro	Russian Federation
Sharabaika Aliaksandr	Deputy CEO for Finance and International Projects	PJSC PhosAgro	Belarus
Shenge Zendedoo Michael	CEO	Shenghait Global Ltd/ Star Farmers Hub	Nigeria
Shiphra Chisha	Director, Programmes	Graca Machel Trust	South Africa

Name	Position	Organisation	Country
Srinivasan Narayanaswamy	Adviser, Highways	travel food services	India
Tenele Simelane	Agronomist	Hill Estate	Swaziland
Theo Boshoff	CEO	Agricultural Business Chamber of South Africa	South Africa
Thule Lenneiye	Chief of Staff	AGRA	Kenya
Tjaart Kruger	CEO	Tiger Brands Limited	South Africa
Tobela Tapula	Managing Director	Herbalife International Southern Africa	South Africa
Tokelo Shai	Youth Policy Board Member, Bioeconomy	World Food Forum	South Africa
Tokelo Shai	Just Transition Programme Manager	Institute for Human Rights and Business	South Africa
Triveshan Naidoo	CEO	TNI (Pty) Ltd	South Africa
Victor Gabriel Roger Jaumouillé	Consultant	ABICS Brazilian Association of Instante Coffee	France
Vincent Sewalt	VP of Public Affairs	International Flavors & Fragrances Inc. (IFF)	Netherlands
Vittorio D'Amore	Sustainability	Tecnocap Group	Italy
Wisahl Jappie	Managing Director and Chief Operating Officer	ETHICORE	South Africa
Xiashu Peng	Staff	China Council for the Promotion of International Trade	China

Name	Position	Organisation	Country
Xie Xiaoyu	Deputy Director	China Council for the Promotion of International Trade	China
Yasuhiro Ohashi	Deputy Director, Industrial Policy Bureau	Keidanren (Japan Business Federation)	Japan
Yvonne Harz Pitre	Director of Public Affairs	International Fertilizer Association	France
Zandile Mposelwa	Corporate Affairs Director	Kellanova (previously Kelloggs)	South Africa

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