COP31 BUSINESS FORUM

Food Security & Agri-Business Working Group Paper

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WBCSD



Jim Andrew

Executive Vice President &
Chief Sustainability Officer,
PepsiCo

Convened by TOBB, the Union of Chambers and Commodity Exchanges of Türkiye, as Private Sector Envoy to the COP31 Presidency

By 2050, the world will likely need to feed more than one billion additional people. Yet the food system is already under strain: climate change is disrupting agricultural production, water scarcity is intensifying in many key sourcing regions and land and soil degradation are weakening the ecosystems on which food production depends. Half of the world's population already experiences severe water scarcity for part of the year, making the sustainable management of land, water and natural resources fundamental to future food security.

The world's 475 million smallholder farms – which collectively produce around one-third of the world's food and supply many of the commodities that underpin global value chains – are particularly exposed to these systemic challenges. Evidence from numerous agricultural development programs suggests that smallholder farmers are willing to adopt more productive and sustainable practices. However, they often lack a clear business case, access to finance, technical support and market opportunities needed to manage risks and generate returns. Women and young farmers tend to face additional constraints, including land ownership, access to capital and participation in decision-making. Aging farming populations globally and low rates of generational renewal also raise concerns about the future productive capacity of many agricultural systems.

These challenges have direct implications for business. As climate risks intensify and natural resources come under greater pressure, supply shortages, price volatility, regulatory requirements, national primary food policies and growing competition for raw materials are becoming increasingly material business concerns. Reliable sourcing from productive, resilient agricultural systems is rapidly becoming a source of competitive advantage.

Meeting these challenges will require closer alignment between public policy frameworks and private-sector investment. Businesses are investing in landscape health, farmer prosperity, supply chain resilience and innovative approaches that distribute the costs and risks of transition more effectively. Governments can accelerate progress by creating the incentives, regulatory certainty and supporting infrastructure needed to scale resilient and sustainable agriculture.



Momentum is building behind efforts to improve productivity and resilience

The case studies highlighted in this brief – and expanded upon in the accompanying Policy Paper demonstrate how business investment, often supported by effective public-private collaboration, can deliver healthier landscapes and watersheds, improved market access for farmers, stronger capabilities through skills and data, and innovative financial and commercial mechanisms that help share the risks of transition. Increasingly underpinned by sustainable sourcing commitments and targets, these initiatives are generating tangible benefits, including improved yields, a larger and more capable producer base and stronger long-term sourcing resilience.

However, translating successful projects into systemic change remains a challenge. Many of the conditions needed to scale resilient and sustainable production systems lie beyond the control of individual companies, farmers or supply chains. Climate and nature risks play out across shared landscapes and ecosystems, requiring coordinated action, long-term investment and enabling policy environments. Policymakers can help accelerate and scale these outcomes by directing public finance and other forms of support toward interventions that are demonstrating impact and strong potential for wider adoption. Continued investment in agricultural research and innovation will also be needed to develop and locally test the solutions farmers will require, through partnerships between farmers, public and international research centers and businesses.

Policy interventions can help accelerate what is already working

The COP31 Food Security and Agri-Business Working Group – comprising companies that collectively operate and invest in more than 200 countries and reach tens of millions of farmers through their supply chains – has identified six critical policy actions that can help businesses manage climate and water risks proactively; create the commercial conditions for farmers to invest; build the capabilities and enabling systems for scale; and transform production while protecting natural resources. These recommendations have been organized under three interconnected priority areas, which are closely linked to the COP31 Action Agenda priorities on Food Security: the climate-nature-food nexus, farmer ecosystems and climate-resilient agriculture.

Building on recent COP commitments and outcomes, the recommendations focus on the policy and investment conditions needed to accelerate private-sector contributions to food security, climate resilience, nature restoration and sustainable land management. Together, they seek to strengthen investment frameworks and accountability, build the capabilities and infrastructure needed to scale solutions and distribute transition costs, risks and benefits more equitably across the food system. The accompanying Policy Paper provides further analysis of the challenges these recommendations are designed to address and supports each recommendation with practical policy actions that governments can take to create enabling conditions, mobilize investment and scale the adoption of resilient agricultural practices.

The global food system is approaching a critical inflection point. Rising climate, nature and water risks are exposing the limits of a model that has often prioritized efficiency and short-term productivity over long-term resilience. COP31 presents an opportunity to strengthen the enabling conditions for a more resilient, productive and sustainable food system by accelerating investment, innovation and collaboration across public and private sectors. The recommendations in this paper provide a practical roadmap for achieving that transition while delivering benefits for food security, farmers, climate, nature and economic growth.

01

The Climate-Nature-Food Nexus

Food systems, climate, nature and water are deeply interconnected. Climate change threatens agricultural productivity and food security, while food production depends on healthy ecosystems and is itself a major driver of environmental pressures. As these risks intensify, fragmented approaches are no longer sufficient, requiring integrated policies and investment that deliver outcomes for food security, climate resilience, nature and economic growth simultaneously.

Businesses are investing beyond individual farms to strengthen the landscapes, watersheds and communities on which their supply chains depend. In Côte d'Ivoire, Ülker's Beyond Cocoa program addresses climate stress, deforestation risk, crop disease, farmer vulnerability and growing traceability requirements across the company's cocoa supply chain. Working through six partner cooperatives, the program combines no-deforestation verification, farm mapping, agroforestry, farmer support and community investment to strengthen both landscape resilience and long-term cocoa supply.

Since 2020, the program has monitored deforestation risks across more than 95,000 hectares and has remained deforestation-free. The program moves beyond risk management to invest in environmental assets on which cocoa production depends. Its agroforestry model supports farmers to integrate trees into cocoa farms, improving soil health, increasing biodiversity and strengthening resilience to climate-related risks. By mid-2026, agroforestry activities led to more than 37,000 trees being planted across 867 hectares, with an ambition to reach 2,000 hectares by 2030.

In the Thrace region of Türkiye, Danone developed an integrated program that combines sustainable farming with water stewardship. Recognizing that milk production depends on healthy soils, reliable water supplies, productive feed systems and economically viable farms, the Nurturing the Value of Milk program combines regenerative feed production, precision irrigation and farmer capacity building within a single delivery model. Farmers receive training and technical support to improve soil management, animal welfare and farm performance, while technologies such as soil-moisture sensors, weather stations and smart irrigation systems help optimize water use and support more informed decision-making. The initiative is delivered through partnerships with farmers, technology providers, producer organizations and local institutions. In 2025, a nine-month pilot saw participating farms increase milk yield per animal by 11% and reduce irrigation-water consumption by 15%. The water stewardship component began with four farmers across 10 hectares and is expected to expand to 100 farmers and 2,000 hectares by 2027.

Examples such as these demonstrate how business investment can generate multiple benefits simultaneously and strengthen agricultural productivity, water resilience, ecosystem health and long-term supply security. However, scaling these approaches remains challenging where landscape governance is fragmented, public and private investment are poorly aligned, and companies cannot capture the full value of benefits delivered across shared ecosystems. Governments can accelerate adoption by creating the enabling conditions for coordinated action and directing support toward models with demonstrated impact and potential to scale. At the same time, they should better align action on climate change, biodiversity loss and land degradation across the three Rio Conventions. Countries can do this by drawing on the Regenerative Landscapes Policy Agenda, a set of recommendations endorsed by business and formally recognized at UNCCD COP17, to attract private investment and encourage companies to contribute to sustainable land management in support of national goals.

Governments should:

Integrate food security, land use, climate, biodiversity and water objectives within national planning frameworks and translate them into coordinated, investable delivery models at the landscape and watershed level.

Create interoperable and open-source measurement and accountability frameworks that define the outcomes being pursued, enable consistent assessment across food value chains and connect verified performance to incentives, investment and disclosure.

02

Farmer Ecosystems

Farmers are central to food system resilience, yet many face low and uncertain returns, limited capacity to invest and growing expectations to improve productivity, climate resilience and environmental outcomes. Building a resilient agricultural sector will require making farming a more attractive and investable profession through stronger market access, finance, skills, technology and support systems. Attention must be given to enabling opportunities for women, young people and the next generation of agricultural leaders.

Resilient supply chains depend on commercially viable and resilient farmers. Businesses are already combining finance, dependable markets, technical support and digital tools to help farmers manage transition risks and invest in more productive and sustainable operations. The following examples demonstrate that these interventions are most effective when delivered as an integrated farmer ecosystem rather than as isolated services.

PepsiCo's collaboration with the Soil and Water Outcomes Fund (SWOF) demonstrates how farmers, government agencies, food companies and agricultural organizations can work together to scale regenerative agriculture through outcome-based finance. Supported by the USDA, which has committed more than US$3 billion to catalyze public-private partnerships, the program rewards farmers for verified outcomes such as greenhouse-gas reductions and improved water quality, while covering measurement costs and providing technical assistance. This reduces the cost and risk of adoption while allowing farmers flexibility to choose the practices best suited to their operations and local conditions.

Since 2020, SWOF has enrolled approximately 3 million acres across 21 states, delivered more than US$92 million directly to farmers and generated approximately 2.5 million tons of CO_2e reductions and removals. The program has also demonstrated that environmental improvements and strong farm economics can be achieved together, with 95% of farmers maintaining or improving yields and 98% maintaining or improving profitability.

Besler Gıda's Women Stars of Agriculture program was launched in 2022 to increase the visibility of women as farmers and agricultural entrepreneurs while expanding their access to knowledge, financing, technology and markets. Rather than offering training as a standalone intervention, the program extends Besler's contract-farming model to women producers through an integrated package that includes purchase guarantees, financial support, seed and fertilizer inputs, year-round agronomic advisory services and access to the AgroAI digital decision support platform. By combining market access with technical assistance and climate-smart farming advice, the program helps women farmers improve productivity, strengthen resilience and participate more fully in agricultural value chains. Since its launch, the share of women in SuperFresh's contracted producer network has increased from approximately 5% to 30%, creating a larger, more diverse and better-supported supplier base. For Besler, the program has strengthened sourcing resilience and expanded production capacity in regions increasingly exposed to climate and water-related risks.

Together, these examples demonstrate that farmers are most able to invest in resilience when finance, market access, digital tools and other support services are delivered as part of an integrated ecosystem rather than through isolated interventions. The results include verified environmental improvements, stronger farm profitability, increased participation by women producers and more resilient supply chains.

However, scaling these models remains challenging where farmers lack access to affordable finance and effective risk-sharing mechanisms. Governments can accelerate adoption by creating the enabling conditions that allow farmers and rural enterprises to invest with confidence and by directing public support toward approaches with demonstrated benefits for both farmers and businesses.

Governments should:

Use public-private finance, risk-sharing mechanisms and targeted transition support to protect farm incomes and ensure that farmers do not carry the costs and risks of adopting more resilient production systems alone.

Establish the legal, institutional and technical foundations that enable farmers and rural enterprises to invest for the long term, build commercially viable operations and adapt to changing climate and water conditions.

03

Climate-Resilient Agriculture

Building climate-resilient agriculture is essential to maintaining food security, protecting natural resources and reducing supply chain risk. While regenerative agriculture can play an important role, the most effective solutions will vary by geography and production system. Policy should therefore focus on rewarding measurable improvements in resilience, productivity and environmental outcomes, while creating the commercial conditions that enable farmers and businesses to invest in transition.

Anadolu Efes, one of Türkiye's largest brewing and malting companies, faces growing risks to barley production from drought, rainfall variability and soil degradation. In response, it launched the Regeneration from Field to Bottle Program, embedding regenerative agriculture directly into its sourcing model. Farmers receive training, financial incentives and advisory support, alongside access to drought-tolerant barley varieties, agricultural R&D and long term purchasing relationships. By improving soil health and water retention, the program aims to strengthen resilience while supporting the long-term productivity of barley and rotational crops. Early results have been encouraging: the 2025 pilot recorded increases of 11–26% in soil organic matter, 18–23% in beneficial bacteria and fungi indicators and 7–13% in water-holding capacity. The initiative is already scaling rapidly, expanding from a 12.5-hectare pilot across three provinces to around 500 hectares and 31 farmers across six provinces in 2026.

Grow With Us, developed by **Compass Group** North America and Foodbuy in partnership with the Center for Environmental Farming Systems (CEFS), was created on the premise that farmers are more likely to invest in resilient and sustainable production when they have reliable market opportunities. The program connects independent and family-owned farms with large-scale foodservice markets, providing more stable demand while strengthening local and regional food systems. Participating farms receive support to access wholesale markets, including guidance on crop planning, product quality, food safety and pricing. Early-season discussions on anticipated demand help growers make more informed production decisions, reducing uncertainty and creating a clearer pathway for growth. What began as a seasonal program in a single state has since expanded into a year-round initiative operating across six major markets, providing greater stability for producers and a more reliable network of local suppliers for Compass Group.

These examples demonstrate that climate-resilient agriculture can improve yields and supply chain security while delivering tangible value for both farmers and businesses. They also show that resilience can be built through combinations of technology, trusted advice and dependable markets, rather than through individual practices alone. However, many of these approaches remain difficult to scale where incentives favor short-term production and farmers lack clear pathways to adopt new crops, technologies and production systems. Governments can accelerate adoption by aligning public support with measurable outcomes and creating the enabling conditions for resilient agriculture to become commercially viable.

Governments should:

Align subsidies, procurement, fiscal measures and other incentives so that resilient and resource efficient production becomes commercially viable and farmers are rewarded for delivering measurable public benefits.

Enable farmers and food system businesses to respond to climate and water risks before they become crises and create viable routes to market for crops, livestock, products and production systems suited to future conditions.

Sources & References

1. FAO
2. WBCSD
3. World Resources Institute
4. Food and Land Use Coalition
5. UNESCO
6. World Bank
7. Climate Policy Initiative
8. EY Research

Detailed sources and references are included in the detailed Working Group Report available on http://copbusiness.org

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