

From farm to finance

**Unlocking investment in
nature-positive agriculture**



September 2024

KPMG Lower Gulf

Executive summary

The food system needs transformational change to enable it to survive the impact of climate change and address the degradation of ecosystems by conventional agricultural practices. This challenge transcends national boundaries in a world of highly globalized food value chains. It is a matter of significance for the UAE and other GCC states that are net agricultural importers while facing water scarcity risks. Referencing some of the leading best practices, we explore the pivotal role of nature-positive agriculture in addressing the challenges of the conventional food system and outline some of the necessary steps to support its more widespread adoption.

The agriculture industry is on the receiving end of some of the most pressing global challenges: climate change, biodiversity loss, increases in energy costs and pollution, and food insecurity. As these intensify, the need for a fundamental transformation of how we produce food and our expectations of food products as consumers has never been more urgent. In this paper, we cover four areas of importance:

“ Tackling the climate-agriculture nexus: the need for transformation

explores the cascading effects between climate change and conventional agricultural practices¹, underscoring growing stakeholder expectations towards more sustainable food production methods.

“ Implementing nature-positive agriculture and empowering farmers

introduces the concept of nature-positive agriculture and highlights the challenges farmers often face in implementing these practices. It also discusses the financial tools and technical assistance required to support this transition.

“ The financing gap for nature-positive agriculture

identifies the existing financing gap that hinders the provision of support mechanisms for farmers.

“ Driving change: strategic recommendations for advancing nature-positive agriculture

concludes with actionable recommendations to overcome some of the financing gaps and barriers to support the transition towards a nature-positive future.

1. Conventional agriculture refers to methods that utilize high inputs of machinery, energy, water resources, fertilizers, and pesticides that have become dominant in the food system since the industrial revolution.



Tackling the climate-agriculture nexus: the need for transformation

The interplay between conventional agricultural practices and climate change presents a negative feedback loop. While the negative consequences of climate change disrupt the ecological systems necessary for food production, the harmful effects of conventional agricultural practices further exacerbate climate change. To break free from this downward spiral, we must reimagine agriculture, shifting toward practices that restore and sustain both our climate and food systems.



The impact of climate change on habitats and food systems

Climate change fundamentally alters the world's natural habitats and food production systems. It is leading to increased biodiversity loss, ecosystem vulnerability, and reduced agricultural productivity. Rising temperatures, changing precipitation patterns, more intense droughts, and an increase in invasive species are disrupting conventional farming practices. This has in turn led to decreasing crop yields, increased financial losses, and heightened food insecurity.

Studies using the 1960s as a benchmark show that global farming productivity is now 21% lower than it could have been without climate change.¹ In 2022 and 2023, record-level droughts and other extreme events worldwide led to numerous crop failures, creating extreme price spikes and loss of land and financial income, especially across five major crops: cocoa, olive oil, rice, soybeans, and potatoes.² Moreover, some estimates suggest that the effects of climate change may lead to a further 30% reduction in global yields of staple food crops by 2050.³ The potential effects of this on the countries in the Middle East are further exacerbated by their high dependence on food imports into the region.

Reduced agricultural productivity can lead to the destruction of livelihoods, particularly in developing countries, where economies are heavily dependent on



agriculture. If humanity fails to take significant action on climate change, the deterioration that we can expect in the coming years will further compromise food systems and crop yields, leaving many without affordable access to food and contributing to wider food insecurity concerns.

The impact of conventional agricultural practices on climate change

Agriculture is one of the most carbon-intensive sectors, making up around a third of global emissions.⁴ According to the UN Global Land Outlook, global food systems are responsible for 70% of freshwater use, and 80% of deforestation, and are the single greatest cause of biodiversity loss. The same report states that intensive monocultures, deforestation for food production, emissions and consequences associated with intensive fertilizer use, and livestock farming generate the bulk of carbon emissions associated with agriculture.⁵

Breaking this negative feedback loop requires transitioning from conventional to more nature-positive agricultural practices. In the first instance, this could help to reverse deforestation, soil degradation, water contamination, and biodiversity loss. Immediate benefits might then include a reduction in land use-associated emissions helping to mitigate climate change, a more sustainable agricultural environment with fewer crop failures, and reduced environmental hazards across the entire food value chain.

Evolving demands from stakeholders transforming how we produce food

As the negative impact of climate change on food systems becomes more evident and increases in magnitude, the need for sustainable solutions has become more pressing.

Governments are increasingly highlighting the need for transformation in the agricultural systems to address climate change and ensure food security. During COP28 in UAE, 134 countries signed the Emirates Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action. This commitment represented a global step towards integrating food systems into national climate plans. The signatories, representing 5.7 billion people and nearly 500 million farmers, account for 70 percent of global food production and 76 percent of emissions from global food systems⁶. As the host, the UAE also committed to enhancing food security and sustainability in agriculture through its UAE National Food Strategy 2051⁷ and in its Nationally Determined Contribution (NDC) interim target for the agriculture sector by 2030⁸.

Consumers are also increasingly aware of the environmental footprint of their food choices, driving a shift towards more sustainably grown and local products, as well as an acceptance of misshapen produce that can be rescued from becoming food waste. A meta-analysis of 80 studies worldwide⁹ underscores this shift, revealing that a significant majority of consumers are willing to pay a premium for sustainable food products. This willingness, though varying across different demographics and regions, highlights an encouraging global trend towards more environmentally conscious food choices.

As consumers prioritize sustainability in their purchasing decisions, and governments commit to embedding more sustainable food systems within their climate action strategies, the pressure on the agricultural sector to change its current practices is intensifying. Food producers are increasingly realizing that they face a dual mandate—not only providing nutritious products to fulfill the right to a healthy life of a growing global population but doing so in a manner that safeguards the planet's resources and mitigates further environmental degradation, thereby supporting the continuity of the industry.



Implementing nature-positive agriculture and empowering farmers

Definition: Nature-positive is a global societal goal defined as 'Halt and Reverse Nature Loss by 2030 on a 2020 baseline and achieve full recovery by 2050'. To put this more simply, it means ensuring more nature in the world in 2030 than in 2020 and continued recovery after that.¹⁰

Nature-positive agriculture: a strategic pathway to sustainable food systems

Nature-positive agriculture refers to a suite of practices designed to enhance biodiversity, restore topsoil, improve soil health, and optimize resource use. It is becoming clear that the focus in the future should be on integrating and re-introducing these practices, many of which date to ancient cultures, into existing agricultural systems, and halting harmful food production methods. This can begin to reverse the damage caused by conventional farming methods and enable a more resilient and sustainable future.

Some of the leading examples of the nature-positive agriculture include, but are not limited to:

Regenerative agriculture

Prioritizes soil health and biodiversity enhancement through practices like crop rotation, usage of cover crops, reduced tillage, and minimization of synthetic inputs.

Case study: General Mills pledges to over 1 million acres regenerative practice by 2030¹¹

General Mills is set to deploy regenerative practices across one million acres by 2030. As part of this effort, they are piloting programs in partnership with organizations like Soil Health Academy to offer farmers education, support, and tools to implement regenerative agriculture, including one-on-one coaching, soil health testing, and biodiversity assessments. To measure the success of regenerative practices, General Mills is developing satellite imagery and AI-powered sensors to track changes in tillage and crop coverage along with modeling metrics for the impacts on greenhouse gas emissions and ecosystem health.

Preliminary results from General Mills' pilots suggest that practices such as reduced tillage and cover cropping improved soil health¹². In terms of socio-economic benefits, the introduction of soil health management practices increased the net farm income for small grain production by USD 19-35, variable by farm location.¹³

Agroforestry

Integrates trees and shrubs with crops or livestock to enhance biodiversity, soil health, and overall landscape resilience to climate change.

Case study: Agroforestry for smallholder cocoa producers in Ghana¹⁴

Cocoa is the primary income source for over 800,000 smallholder farmers in Ghana, but its expansion has historically become the main contributor to the deforestation of 135,000 hectares annually. To present local farmers with the viability of deforestation-free alternatives for cocoa production, a partnership between the UNDP, COCOBOD, and Mondelez International's Cocoa Life Programme introduced farmers to agroforestry practices that boost cocoa production and rehabilitate degraded landscapes.

The project incentivized over 9,600 farmers to plant more than 787,000 economic tree seedlings, which protect cocoa plants from excessive sunlight, retain soil moisture, and restore 8,600 hectares of forests that act as a carbon sink.

Hydroponics

Employs nutrient-rich solutions in controlled environments without the use of soil for faster and more precise plant growth, allowing for more efficient water use and a reduced need for pesticides.

Case study: Hydroponic farm in the UAE to ensure food security and minimize environmental damage¹⁵

The world's largest hydroponic farm became operational in Dubai in April 2024. Designed to produce over 1,000,000 kilograms of high-quality leafy greens annually, the facility uses 95% less water than conventional agricultural methods. This vertical farm is the first project of Emirates Crop One, a joint venture established by Emirates Flight Catering and Crop One, an industry leader in vertical farming.

Aligned with the UAE's National Food Strategy 2051 and Water Security Strategy 2036, the farm's closed-loop system maximizes water efficiency. When the water vaporizes, it is recovered and recycled back into the system, saving 250 million liters of water annually compared to conventional outdoor farming for the same level of output.

Precision farming

Uses site-specific technology and data to enable farmers to be more precise with their irrigation and use of fertilizers and identify other production inputs that can help to optimize resource use and minimize environmental impact.

Case study: Precision AI's crop-spraying drone for large farms

Large-acre crops like corn and wheat have been treated with herbicides sprayed by tractors, leading to significant environmental damage, including soil pollution, water contamination, and loss of biodiversity. Precision AI, a Canadian startup, has developed an AI-powered crop-spraying drone that reduces chemical use by up to 90%.

Using a database of images from 15,000 plant species, the company's AI algorithms are trained to distinguish between staple crops like corn, wheat, and soybeans and unwanted weeds. The drone can detect objects as small as half a sesame seed and identify weeds with 96% precision.



Agrivoltaics

Comprise the use of land for both agriculture and solar photovoltaic energy generation to address the dual need for renewable energy and agricultural production.

Case study: Agrivoltaic kimchi farming in South Korea¹⁶

Kimchi cabbage holds a prominent role in the Korean diet and local agricultural mix. In a study spanning two cultivation years in South Korea, kimchi cabbage was grown using an agrivoltaic system, whereby solar panels were installed on top of crop cultivation areas with carefully designed shaded areas to ensure the necessary sunlight exposure.

The study results have shown that there was no difference in crop yield and quality between the traditionally grown kimchi and the cabbage grown using agrivoltaic systems. This points to the vast potential of agrivoltaics to address renewable energy and food production needs, maximizing land use efficiency and associated environmental impact reductions. Moreover, since kimchi is a low-temperature crop, the steep temperature increases spurred by climate change can affect crop yield and quality. Therefore, agrivoltaic cultivation of certain crops may work to increase comparative yields over time.

The examples provided above demonstrate the range of options and the significant potential of nature-positive agriculture approaches in addressing food insecurity and climate change. Practices such as regenerative agriculture, agroforestry, precision farming, agrivoltaics, and hydroponics can contribute to reducing the environmental footprint of agriculture, while still ensuring sustainable food production. As the focus on sustainability and decarbonization grows among governments, consumers, and industry leaders, the widespread adoption of these practices will be crucial in creating a resilient agricultural sector, whilst also supporting both people and the environment.



Challenges faced by farmers in implementing nature-positive practices

The practical challenges of implementing these practices remain substantial for producers. Farmers can encounter a diverse range of obstacles that impede their ability to transition to more sustainable methods. These challenges are not uniform; they vary significantly depending on factors such as farm size, location, and access to resources. For small-scale farmers, the barriers often include financial constraints, restricted market access, and significant knowledge gaps. In contrast, large-scale farmers, who might have more financial resources, may grapple with the complexities of integrating new practices into their established systems, navigating shifting regulatory landscapes, and ensuring profitability in a competitive market, considering stakeholder pressures.

Understanding these challenges is crucial for developing effective strategies that support all farmers in their efforts to adopt nature-positive agriculture.



Common challenges faced by small-scale farmers

- **Financial constraints:** Small-scale farmers often face limited access to capital and credit, making it difficult to invest in new methodologies or technologies to reinvent their practices. In most cases, the high upfront costs and ongoing maintenance can be prohibitive, and expected financial returns from more sustainable practices are not easily attainable.
- **Knowledge gaps:** Implementing new and complex systems requires specific knowledge and training. Small-scale farmers may not commonly have the necessary know-how or easy access to educational programs.
- **Market access:** Small-scale farmers, particularly those in remote regions, may face difficulties in accessing markets that recognize and reward nature-positive practices and/or meet demands from big buyers due to scale, quality, or timing constraints. The economic viability of adopting these sustainable methods can be uncertain, especially when the transition to nature-positive agriculture involves increased costs.



Common challenges faced by large-scale farmers

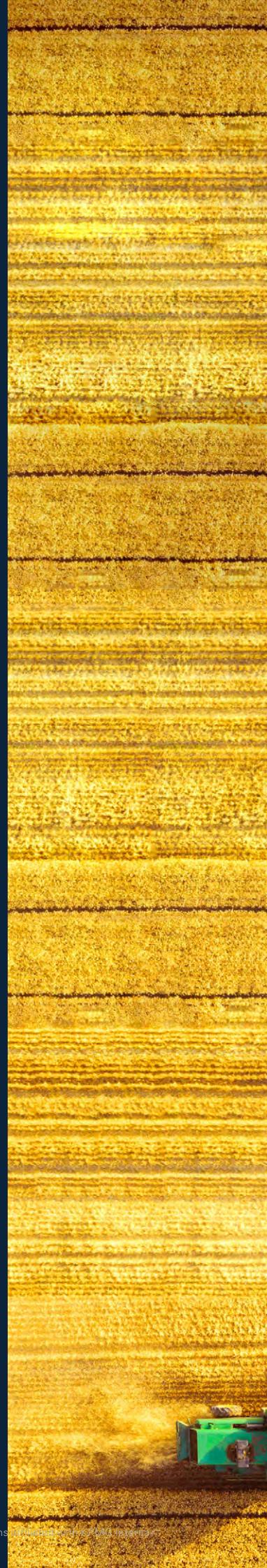
- **Integration challenges:** Integrating nature-positive practices into large-scale operations can be complex and require significant changes to introducing new technologies, reconfiguring plantations, altering machinery, or retraining workers, all of which can disrupt established routines.
- **Regulatory issues:** Large-scale farmers may face challenges in navigating the regulatory and standards landscape related to nature-positive practices. Complying with environmental regulations and obtaining voluntary certifications can add layers of bureaucracy and cost.
- **Return on investment:** While there is a growing demand for sustainable products, large-scale farmers might find it challenging to shift entire production systems without guaranteed continuous market demand. If the demand for products with higher costs on farmers cannot be secured, the financial viability of such practices may be at risk.

Supporting farmers' transition: the role of public and private actors

As the agricultural sector faces the multifaceted challenge of transitioning to nature-positive practices, it should be noted that farmers cannot bear this shift alone. Addressing the barriers, whether financial, technical, or market-related, requires coordinated efforts from a broad array of market stakeholders.

Financial institutions, governments, non-governmental organizations and agribusiness value chain actors must bring together their capacities to provide the necessary support systems that can enable farmers to overcome the challenges they face. Through an integrated and collaborative approach, the agriculture sector can move towards a more sustainable and resilient future, where nature-positive agriculture is not only economically viable at scale but also widely adopted.

The table below outlines a variety of current support mechanisms, each at different stages of adoption. However, the majority of these remain limited in scale. This limited uptake can be attributed to a range of economic, policy, and societal factors that have hindered widespread adoption. To drive the transition for nature-positive agriculture, it is crucial to address these barriers. In the next section, we explore the core challenges impeding the adoption of the support mechanisms (the so-called financing gap) and provide strategic recommendations to overcome them.



Support mechanisms	Benefits and opportunities	Potential providers
 Loans and grants	<p>Loans with favorable terms or grants can reduce the upfront costs associated with adopting new agricultural technologies, nature-positive methodologies, and tools.</p>	<ul style="list-style-type: none"> • Development finance institutions (DFIs) • Commercial and investment banks
 De-risking mechanisms	<p>Targeted insurance products or risk-sharing arrangements can create a safety net that encourages farmers to innovate without fear of economic loss.</p>	<ul style="list-style-type: none"> • DFIs • Insurance companies
 Market guarantees	<p>Securing demand through long-term purchase agreements can assure farmers, particularly those in markets with fluctuating demand. This may reduce the economic uncertainty that often accompanies the transition to new practices.</p>	<ul style="list-style-type: none"> • Value chain actors (Traders/ food companies/retailers)
 Rewarding ecosystem services	<p>Monetizing the positive externalities of practices like regenerative agriculture and agroforestry, such as carbon sequestration and biodiversity enhancement, can fully capture the contribution of pioneering farmers to ecosystem health.</p>	<ul style="list-style-type: none"> • Governments • DFIs • Value chain actors
 Blended finance	<p>Combining a diverse pool of public and private funding can be allocated to de-risk investments, attract private investors, and offer profitable and favorable terms for the agribusiness value chain.</p>	<ul style="list-style-type: none"> • Governments • DFIs • Insurance companies • Private investors • Philanthropy organizations
 Technical assistance	<p>Providing expertise, training, and support to farmers to help them implement and maintain sustainable practices. This can include on-the-ground advisory, workshops, access to knowledge resources, and ongoing mentoring.</p>	<ul style="list-style-type: none"> • Governments • DFIs • NGOs • Research institutions
 Decentralized finance (De-Fi)	<p>By leveraging blockchain technology and smart contracts, DeFi can streamline financial transactions, and create international networks to provide new funding opportunities, particularly for small-scale farmers in remote areas with limited access to institutional investors.</p>	<ul style="list-style-type: none"> • Agri fin-tech innovators





→ The financing gap for nature-positive agriculture

To address the negative impact on food systems stemming from climate change and accelerate the adoption of solutions that can enable the shift to more sustainable agriculture, substantial amounts of financing will be required in the coming decades. By some estimates, this amounts to around USD 350 billion annually over the next decade alone.¹⁷

Despite the critical importance of transitioning to nature-positive agriculture and leveraging the emerging support mechanisms, the current investment landscape for this necessary transformation is severely lacking. This may be due to a variety of factors, including perceptions of low returns on investment and high risks.¹⁸ Food systems receive only 3% of public climate finance, while global investments to support the transition to sustainable and climate-resilient food systems are falling behind by a significant margin, estimated to be 32 to 37 times less than what is needed.¹⁹ Moreover, a global study reveals that while 64% of agri-food companies recognize regenerative agriculture as an opportunity, the majority lack formal targets. Only 8% of them have financial commitments to support farmers in their value chains in adopting these practices. This highlights a significant gap between stakeholder recognition and actionable commitments within the sector.²⁰

The financing gap to support nature-positive agriculture is driven by several interconnected challenges that create barriers for investors and agribusiness. These challenges must be thoroughly understood and effectively addressed to unlock the capital needed for sustainable agricultural practices.

Historical lack of standardized metrics

Unlike carbon emissions with standardized calculation frameworks that have been available for a long time, the impact assessments on biodiversity and nature have long lacked universally accepted metrics. Without clear and standardized frameworks, it has been a challenge to assess the potential returns on investments in sustainable practices. However, this challenge is beginning to be addressed with the July 2024 publication of the Taskforce on Nature-related Financial Disclosures (TNFD) Additional Sector Guidance: Food and Agriculture.²¹

Economic short-termism

Our prevailing economic model, which emphasizes maximizing financial returns within short evaluation periods at quarterly and annual intervals, often leads companies, shareholders, and investors to prioritize short-term financials over long-term returns and environmental, social, and economic sustainability. Short-termism with a focus on immediate financial gains can result in underinvestment in projects like nature-positive agriculture that, in most cases, require longer time horizons to deliver meaningful returns. In addition, existing subsidy regimes favor a continuation of the status quo approach. These need to be phased out.

Private actors not accounting for social return on investment (SROI) and environmental externalities

Closely linked to economic short-termism and the historical lack of standardized metrics is the tendency of private actors to overlook social and environmental benefits that nature-positive agriculture can deliver, or negative externalities caused by unsustainable food production practices. For instance, cheap energy costs in food processing and transportation do not account for carbon emission externalities, distorting market incentives. In the agri-business sector, where most food

production relies on healthy, functioning ecosystems, accounting for environmental externalities is essential for the long-term stability of food systems and the existence of the sector.

Anti-competitive behavior of large players

Some large vertically integrated organizations in the food sector may engage in collusion and other restrictive business practices. This can hinder market competition in favor of incumbent players – small producers who build their operations on the principles of nature-positive agriculture may simply be driven out of the market.

Race to avoid additional agriculture standards

Leveraging increasingly globalized value chains, companies in the food sector may shift production to markets with lower regulatory pressure or stakeholder expectations on sustainability instead of investing to adapt their operations to be more aligned with positive environmental outcomes.

Complexity of coordination between actors and scaling across regions

The successful implementation of nature-positive agriculture relies on the coordinated efforts of a wide range of stakeholders, including farmers, investors, government agencies, and NGOs. Implementing support mechanisms for farmers requires a shared responsibility across actors. For instance, rewarding ecosystem services must be valued by all the actors across the spectrum; deploying de-risking mechanisms, market guarantees, and blended finance distribution requires cohesive and strategic collaboration among diverse stakeholders.

Moreover, scaling these practices across different regions presents additional difficulties. Variations in ecosystems, local contexts, and regulatory environments can impede the replication of nature-positive agricultural practices. The need for tailored approaches that consider regional differences adds complexity to the coordination effort. Successfully scaling nature-positive agriculture requires flexible and adaptive strategies that can accommodate the diverse agricultural landscapes and stakeholder needs found across different regions.



Driving change: strategic recommendations for advancing nature-positive agriculture

This paper has highlighted how the transition to nature-positive agriculture is no longer an option but a necessity, driven by the urgent need to address the intertwined challenges of climate change, biodiversity loss, and food security. While the potential of these practices to create more resilient and sustainable food systems is clear, the financing gap remains a critical obstacle that must be addressed to achieve meaningful progress. Bridging this gap requires a concerted effort with a focus on the long-term benefits of nature-positive practices and how this can also represent “good business”.



Accelerating policy action and economic incentives

Governments must take a leading role in fostering the adoption of sustainable agricultural practices by implementing robust long-term food security strategies, policies, and regulations, and providing targeted economic incentives. This includes introducing subsidies (and removing existing harmful subsidies), tax reductions, and other financial instruments designed to lower the entry barriers into nature-positive agriculture for farmers and investors alike. By making nature-positive practices economically viable, policymakers can catalyze widespread adoption and drive the transition at scale.

Fostering momentum in consumer demand

Continuous consumer demand can drive the change in the status quo of the conventional food system. Although research shows that most consumers prefer more sustainable food products, and are willing to pay a premium, this trend needs consistency across time horizons, demographics, and geographies for investors to show a higher interest in nature-positive agriculture. This is closely linked to the point on economic incentives – well-designed subsidies and tax reductions for nature-positive agriculture will support the accessibility and affordability of such food products to wider consumer audiences.

Engaging with investors to harness solutions

The financing gap persists not due to the lack of funds in the financial system but the lack of strategic



direction of those funds towards nature-positive agriculture. Identifying the part of the agricultural value chain that requires financing and engaging directly with potential investors to determine barriers they are facing can boost investor interest and ensure that solutions (such as de-risking) are tailored to stakeholder needs.

Enhancing public-private partnerships

The complexity and scale of transitioning to nature-positive agriculture necessitate a coordinated approach that spans multiple sectors. Public and private stakeholders must work together to pool financial resources, offer technical assistance, and create integrated support systems. Blended financing models, combined with mechanisms for rewarding ecosystem services, can mitigate risks and provide the necessary incentives for farmers and investors to embrace sustainable practices.

Mainstreaming TNFD disclosures

TNFD is a multistakeholder government-supported organization set up to guide on nature-related issues to capital providers and other stakeholders. TNFD has developed a set of disclosure recommendations and guidance that encourage and enable businesses and finance to assess, report, and act on their nature-related dependencies, impacts, risks, and opportunities. The recent introduction of the TNFD's Additional Sector Guidance for Food and Agriculture represents a significant step forward in promoting transparency and accountability within the agricultural sector. However, for these metrics to have their intended impact, they must be widely adopted.

To drive widespread adoption, integrating TNFD into the regulatory framework is crucial. This approach embeds sector-specific metric standards for monitoring and disclosure directly into agricultural practices, ensuring all value chain participants—from producers to financiers—follow consistent guidelines. Such integration would facilitate more informed decision-making by offering a clear, comparable, and comprehensive perspective on the environmental and social risks and opportunities tied to agricultural activities and investments.

Embedding externalities into financial decision-making

To catalyze the adoption of nature-positive agriculture, finance teams within agribusiness actors must broaden their concept of business success to encompass more than conventional short-term financial returns. The regulatory trends around GRI, TCFD, IFRS S1 and S2 signal that the emphasis on non-financial performance is not just a temporary phase but a fundamental shift in market expectations. Market stakeholders can expect similar developments around TNFD and SROI metrics in the upcoming years.

By embedding externalities' valuation into their financial planning, companies can more effectively account for the broader social and environmental impacts of their investments and business activities. Early movers can proactively anticipate regulation, bolster their market reputation, and attract capital.

Next steps

The climate-agriculture nexus is a complex one, with the changing climate impacting global crop quality and yields while the conventional agricultural practices used to produce those crops continue to contribute to environmental destruction and further exacerbate climate change. Nature-positive agriculture offers an approach that can deliver a more sustainable and resilient food system. The practices encompassed under its umbrella, including regenerative agriculture, agroforestry, precision farming, and others, are being deployed by companies around the globe, including the UAE.

However, the significant and rapid scaling it requires, specifically given barriers to adoption faced both by small- and large-scale farmers, is only possible through the strategic and coordinated use of a diverse range of financial support mechanisms, such as risk-sharing agreements, and blended and decentralized finance. The market is likely to continue to shift towards the incorporation of non-financial factors into decision-making with the rise of IFRS S1 and S2 standards, and TNFD. Stakeholders should come together to further spearhead strategic action on enabling nature-positive practices.

The time to act is now. The capital and know-how are available, and with coordinated efforts to deliver this at scale, we can overcome the perceived challenges and accelerate the transition to a nature-positive future.





Sources

- ¹ <https://woods.stanford.edu/news/seven-years-agricultural-productivity-growth-lost-due-climate-change#:~:text=Despite%20important%20agricultural%20advancements%20to,productivity%20increases%20since%20the%201960s.>
- ² <https://www.weforum.org/agenda/2024/02/climate-change-food-prices-drought/>
- ³ <https://unfoundation.org/blog/post/climate-change-and-the-future-of-food/>
- ⁴ <https://news.un.org/en/story/2021/11/1105172>
- ⁵ https://www.unccd.int/sites/default/files/2022-04/GLO2_SDM_low-res_0.pdf
- ⁶ <https://www.cop28.com/en/news/2023/12/COP28-UAE-Presidency-puts-food-systems-transformation>
- ⁷ <https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/environment-and-energy/national-food-security-strategy-2051>
- ⁸ https://unfccc.int/sites/default/files/resource/UAE_LTLEDS.pdf
- ⁹ https://www.researchgate.net/publication/350488270_Meta-analysis_of_consumers%27_willingness_to_pay_for_sustainable_food_products
- ¹⁰ <https://www.naturepositive.org/app/uploads/2024/02/The-Definition-of-Nature-Positive.pdf>
- ¹¹ <https://www.generalmills.com/how-we-make-it/healthier-planet/environmental-impact/regenerative-agriculture>
- ¹² https://globalresponsibility.generalmills.com/HTML1/general_mills-global_responsibility_2024_0046.htm
- ¹³ Ibid.
- ¹⁴ <https://www.undp.org/ghana/stories/farmers-adopt-environmentally-friendly-practices-boost-cocoa-production>
- ¹⁵ <https://www.gulfoodgreen.com/news-insights/worlds-largest-vertical-farm-opens-dubai>
- ¹⁶ <https://www.mdpi.com/2073-4395/13/10/2625>
- ¹⁷ <https://unctad.org/news/world-investment-forum-mobilize-financing-climate-energy-health-and-food>
- ¹⁸ <https://www.worldbank.org/en/topic/agriculture/publication/making-climate-finance-work-in-agriculture>
- ¹⁹ [climatefinancereport-english.pdf \(futureoffood.org\)](https://climatefinancereport-english.pdf)
- ²⁰ <https://www.fairr.org/news-events/press-releases/food-sector-making-more-promises-than-progress-on-regenerative-agriculture>
- ²¹ <https://tnfd.global/publication/additional-sector-guidance-food-and-agriculture/>

About KPMG Lower Gulf

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KPMG Lower Gulf is part of KPMG International Cooperative's global network of professional member firms. KPMG firms operate in 143 countries and territories, and in FY23, collectively employed more than 270,000 partners and people. Established in 1973, KPMG in the UAE and Oman is well connected with its global member network and combines its local knowledge with international expertise.

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Integrity: We do what is right.



Excellence: We never stop learning and improving.



Courage: We think and act boldly.



Together: We respect each other and draw strength from our differences.



For Better: We do what matters.

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