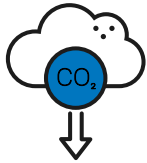


Net-zero: Food

25% of human-caused greenhouse gas emissions come from agriculture, forestry and other land use¹

What does the **food sector** need to do to reach net-zero?

LGIM will vote and implement investment sanctions against companies falling short of our climate expectations. LGIM expects companies' boards to oversee and publicly disclose answers to the following:



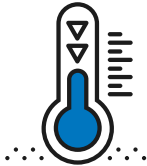
Net-zero commitment

- Does the company have a comprehensive target for net-zero by 2050 or earlier, covering scopes 1, 2 and material scope 3 emissions?²
- Has the company made a commitment to certify/certified this target with the SBTi or other external independent parties as it develops?
- Does the company have a net-zero transition plan that includes short- and medium-term targets?³



Strategy

- What are the actions and investments involved in the company's plan to reach net-zero, and what is the contribution of each action towards meeting its targets?⁴
- Does the company have a regenerative agriculture programme in place?
- Has the company calculated the % of forest risk commodities that might be linked to deforestation?
- What strategies are being adopted to influence and promote consumer uptake of low emission/alternative protein product?
- Is executive remuneration aligned with the company's short- and/or medium-term emissions targets, as set out in the net-zero transition plan?
- Does the company's net-zero strategy and the use of any offsetting consider the potential impacts and dependencies on biodiversity – for example, in relation to land use?



Resilience

- Has the company analysed the physical climate risks to its assets, operations, and value chain, including potential financial impacts, and evidenced measures to mitigate or adapt to them?
- Product portfolio: How much revenue is derived from animal protein, particularly beef?



Targets

- Does the company have targets to reduce or eliminate food loss or waste?
- Does the company have targets to reduce non-CO2 emissions, such as methane and nitrous oxide, and to phase out hydrofluorocarbons (HFCs) from refrigeration along the supply chain?



Collaboration

- How is the company working collaboratively across its value chain to reduce emissions (e.g. with customers, suppliers, strategic R&D partnerships, sector initiatives etc)?
- Is the company advocating meaningful policy action, including from regulators, to meet global net-zero targets (e.g. with carbon pricing)?



Red lines

- Does the company have comprehensive zero-deforestation and no-land-conversion procurement policies?
- Does the company disclose its climate-related lobbying activities, including trade association memberships, and explain the action it will take if these are not aligned with a 1.5°C scenario?

*The applicability of the expectations varies depending on companies' business models

1. IPCC (2018).

2. Aiming to cover all segments of the business, as articulated within the GHG protocol guidance.

3. Short-term refers to 2022-2025, medium-term 2026-2035 and long-term 2036-2050.

4. E.g., investing in innovation and product development of plant-based and alternative proteins, introduction of technologies to reduce food waste.

Further areas for company consideration

Biodiversity expectations

Why? The climate and nature crises are inextricably linked.⁵ Net-zero requires both emission avoidance and sequestration. Functioning natural systems are essential to this, but increasingly vulnerable due to climate change.

LGIM’s expectations: An assessment of the impacts and dependencies on nature and biodiversity, and appropriate mitigation actions.

Sector-specific considerations: The global food system is the primary driver of biodiversity loss. Impacts could result from habitat clearance for farmland, soil degradation, monoculture environments, overexploitation of species, and widespread pollution.



Company levers

- Reducing animal protein production and promoting plant-based alternatives to reduce land, water and emissions footprint
- Regenerative agriculture
- Lower emission farming practices
- Supply chain monitoring and traceability
- Waste management (animal waste, water, packaging)
- Natural refrigerants
- Consumer education

Government policies

- Farming standards
- Subsidy reform
- Soil restoration
- No deforestation
- Mandatory supply chain certification and traceability
- Local supply chain
- Waste reduction
- Taxation (including carbon pricing)



Challenges



Opportunities

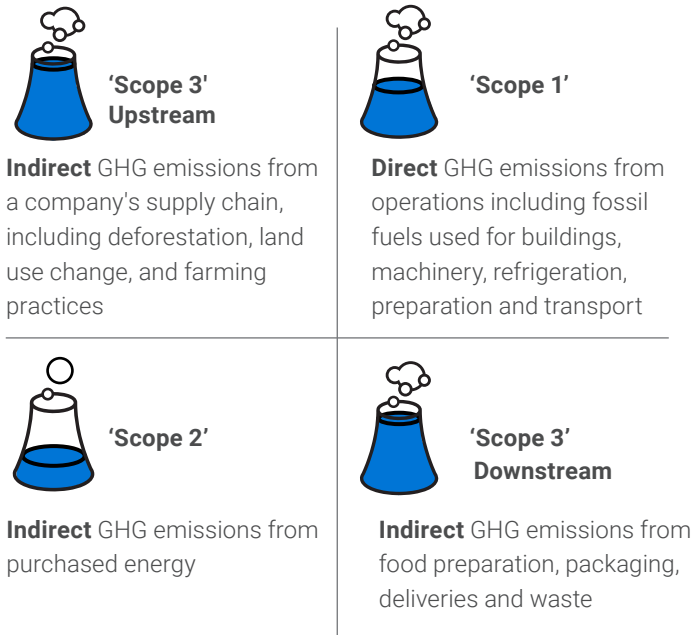


What is needed?

		What is needed?		
		Company leadership	Research and innovation	Consumer behaviour
Increasing production without additional land	Growing market for alternative proteins and healthy food options	Investments in new products and tackling emissions across supply chain, with clear commitments to net-zero	Protein alternatives	Consumers adopting plant-based alternatives
Crop yield slowdown and soil loss, while reducing fertiliser use	Cost savings from low-carbon equipment		Packaging and waste	
Methane emissions	Reducing public health risks		Regenerative agricultural practices	
Lack of supply chain transparency	Improved productivity			
Dietary shifts				
Food and packaging waste and food loss				

5. UN IPCC-IPEBS, [Biodiversity and Climate Change workshop report \(2021\)](#)

Sources of emissions



Sources: IPCC (2018)

'Just Transition' considerations

The potential implications for employees, the supply chain, customers and communities from the transition to a lower-carbon business model

Alternatives to fertilisers/plastics may raise costs of food and other key commodities

Physical risk impacts

Disruption to global food supply

Weather-caused accidents (leaks, fires, explosions)

Water scarcity



For more information and to see how companies are rated

[LGIM Climate Impact Pledge score](#)

[LGIM Climate Impact Pledge](#)

Important information

Source: LGIM as at September 2023. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested. The above information does not constitute a recommendation to buy or sell any security.