CATEGORY REPORT

SUSTAINABILITY

This category assesses how the largest food and beverage manufacturers are addressing environmental challenges to nutrition security.

The food and beverage industry plays a substantial role not just in shaping human health, but also planetary health. Throughout the entire value chain – from ingredient and packaging production, to processing, distribution, preparation, and consumption – the production of packaged foods and beverages can have a wide range of substantial environmental impacts involving greenhouse gas (GHG) emissions and energy consumption, land use and deforestation, soil health, biodiversity loss, and water consumption, as well as food loss and waste (FLW), and packaging pollution.

Left unchecked, climate change and environmental degradation threaten crop yields and nutrient bioavailability in a variety of ways, which in turn affects the global food system's ability to deliver nutrition security and dietary diversity for billions in the future. These impacts are already being felt: for example, climate change-induced losses in the European Union's agricultural sector alone amount to EUR 23.8bn per year, equivalent to 6% of annual crop and livestock production, according to the European Investment Bank.[1]

At the same time, companies' efforts to improve on sustainability can, in certain situations, have direct and immediate implications for nutrition in their portfolios, either positively or negatively. For example, efforts to reduce GHG emissions and deforestation by substituting animal-derived ingredients for plant-based can simultaneously have both positive and negative impacts for nutrient content and processing levels. Similarly, efforts to improve nutrition outcomes, such as increasing access and affordability of healthier products, or to reduce food waste, can involve the increased use of plastic packaging.

It is therefore important for all stakeholders, particularly those within the food industry, to adopt a food systems approach; one that prioritizes and continues to seek positive outcomes for both nutrition and climate, or at minimum, carefully assesses and balances the trade-offs between them.

In This Chapter

While an in-depth assessment of companies' environmental performance was beyond the scope of the research for the 2024 Global Index, this report summarizes the companies' inclusion of sustainability-related results of the World Benchmarking Alliance (WBA)'s 2023 Food and Agriculture Benchmark (2023 FAB)'s 'Environment' category.[a] This assessed

[a] Two Global Index companies, Flora Food Group and Nissin, were not assessed in the WBA Food & Agriculture benchmark. In addition, Kellanova was assessed as Kellogg, which underwent a demerger in 2024 into the entities of Kellanova and WK Kellogg portfolios.

companies' public commitments and transparency across twelve key sustainability-related topics. Full details of the WBA's methodology can be found here.

This brief will focus specifically on the topics of Scope 1 and 2 greenhouse gas emissions (B1), Scope 3 emissions (B2), Protein diversification (B5), Soil health and agro-biodiversity (B6), and Food loss and waste (B9).

In addition, it summarizes the extent to which the companies explicitly address these topics in their nutrition strategies.

Limitations

It is important to note that the WBA assessment relied solely on publicly available information, with data collection occurring between February and August 2023—primarily reflecting data from 2022. In contrast, ATNi's 2024 Global Index incorporated non-public information and was conducted a year later. Some companies may have enhanced their sustainability performance during that time or implemented initiatives that were not publicly disclosed.

Another key difference between the two approaches is ATNi's use of a geographic multiplier in its global assessment. This adjustment accounts for instances where companies do not apply their global policies or commitments consistently across all markets in which they operate.

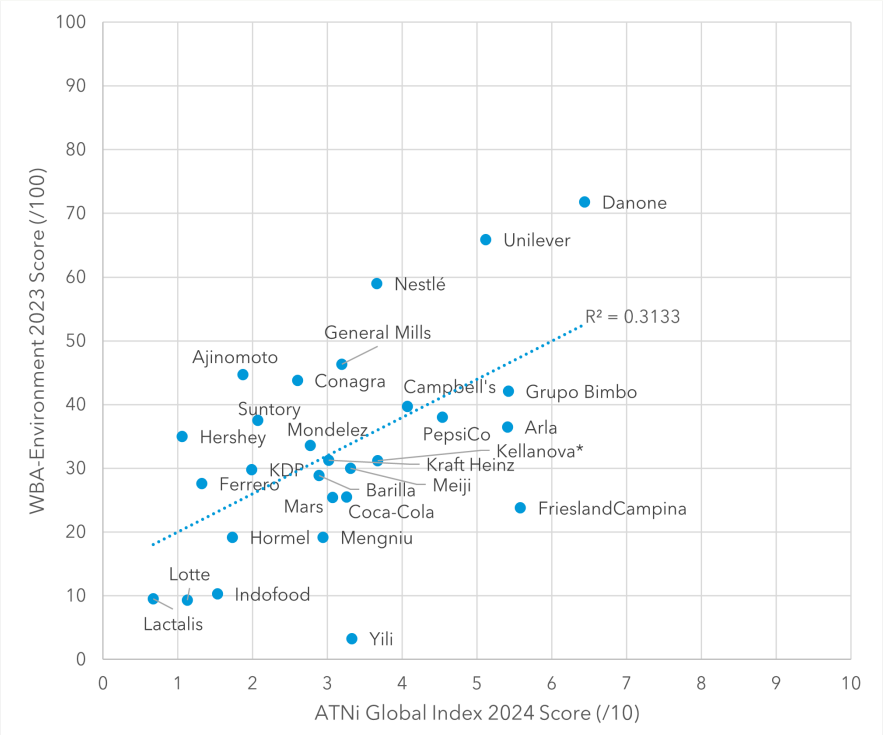
Additionally, ATNi's evaluation includes an independent performance assessment of the nutritional quality of manufacturers' products—known as the Product Profile. This component helps determine whether corporate policies lead to tangible improvements in product portfolios and contributes 30% to the final score, potentially influencing overall company rankings.

OVERALL RESULTS

Figure 1 shows the 'Environment' scores from the WBA's 2023 Food & Agriculture Benchmark for each company mapped onto their 2024 Global Index scores, showing a moderately weak positive correlation (R^2 = 0.31) between them; specific scores per company and per 'Environment' indicator can be found in the Annex.

It shows that Danone and Unilever are the only companies to have scored over 50% in both benchmarks. Of note, Danone, Unilever, and Nestlé were the three highest scoring companies out of 350 companies in the 2023 FAB's 'Environment' category. Other companies that scored over 50% in the 2024 Global Index, including Arla, FrieslandCampina, and Grupo Bimbo, did not score highly in the Environment category.

FIGURE 1:
SCATTERPLOT MAPPING COMPANIES' 'ENVIRONMENT' SCORES (WBA'S 2023 FOOD AND AGRICULTURE BENCHMARK) TO THEIR 2024 ATNI GLOBAL INDEX SCORES



Source: ATNi

SCOPE 1, 2 AND 3 GREENHOUSE GAS EMISSIONS (GHG) TARGETS AND REPORTING

5 COMPANIES HAVE SET TARGETS TO REDUCE SCOPE 3 EMISSIONS IN LINE WITH A 1.5° PATHWAY

The global food system contributes 21–42% of annual greenhouse gas (GHG) emissions.[2,3] Without rapid action, emissions resulting from food production alone could drive the planet past 1.5°C of warming.[4] Failure to do so will have profound consequences on humanity's ability to produce food and achieve nutrition security.

Private sector actors must therefore set targets aligned with the Paris Agreement (ideally 1.5°C, well before 2050), covering not only Scope 1 and 2 emissions (direct and indirect operations) but also Scope 3, which account for 90–95% of food companies' emissions.[5] Regular and transparent reporting is key to external accountability and progress.

Most Global Index companies have set Scope 1 and 2 targets and report regularly, though ambition varies:

- **Aligned with 1.5°C, time-bound, and regularly reported (Scope 1 & 2)**: *Ajinomoto, Arla, Campbell's, Danone, FrieslandCampina, General Mills, Hershey, Meiji, Nestlé, PepsiCo, Suntory, Unilever.*
- **Targets set but less ambitious (e.g., 2°C pathways, intensity-based, inconsistent reporting)**: *Barilla, Coca-Cola, Conagra, Ferrero, Grupo Bimbo, KDP, Kellogg's, Kraft Heinz, Lotte, Mars, Mengniu, Yili.*

For Scope 3:

- **Comprehensive, time-bound targets aligned with 1.5°C and transparent reporting**: *Arla, Danone, FrieslandCampina, Nestlé, PepsiCo, Unilever [not 1.5°C-aligned].*
- **Targets which are 1.5°C aligned but with reliance on intensity-based metrics, or less consistent or comprehensive progress reporting**: *Ajinomoto, General Mills, Grupo Bimbo, Hershey, Mars, Meiji, Suntory.*
- **Targets that are partial in coverage, have weaker timelines, or lack detailed reporting**: *Campbell's, Coca-Cola, Conagra, Ferrero, Kellog's, Kraft Heinz, Mondelez.*
- **No targets or reporting**: *Barilla, Hormel, Indofood, Lactalis, Lotte, Mengniu.*

Overall, while Scope 1 and 2 target-setting is common among the largest food & beverage manufacturers, progress on Scope 3 remains uneven, with only a limited number of firms adopting comprehensive, 1.5°C-aligned targets and transparent reporting. Given that this is where the majority of a company's emissions takes place, ambitious and comprehensive targets and transparent reporting are needed.

PROTEIN DIVERSIFICATION & SHIFTING TOWARDS PLANT-BASED

Animal agriculture – particularly beef and dairy production - is a major driver of emissions (especially of methane), deforestation, and biodiversity loss while also contributing to deteriorating soil health and water use.[6] It has been estimated that if high-income countries cut meat consumption to medically recommended levels, temperature rise trajectories would be cut by 55%, for example.[7] The IPCC stresses that shifting diets toward plant-based proteins, particularly in high-income markets, is critical to mitigation of these environmental impacts.[6]

Engagement with protein diversification among Global Index 2024 manufacturers varies widely. This partly reflects portfolio differences: beverage companies without dairy (such as Suntory and KDP) were excluded from FAB's 2023 analysis, while dairy companies and Hormel, focused mainly on animal-based products, have less scope for diversification.

19 of the 26 companies assessed on this indicator, at minimum, disclose qualitative evidence of protein diversification activities or commitments. Of these, nine companies publish quantitative information evidence of increasing alternative proteins within their portfolios. Nestlé stands out as the only company to disclose the proportion of animal vs. alternative proteins in its portfolio.

Only three companies, however, have set clear, sales-based targets regarding plant-based or alternative protein products:

- **Unilever:** discloses the ratio of alternative to animal proteins in its portfolio and has set sales-based objectives for plant-based products, with regular reporting on progress.
- **Danone:** set a sales target of €5 billion by 2025 for plant-based (from ~€2 billion in 2020).
- **Grupo Bimbo:** set and reports against a target to ensure that 100% of its baked goods and snack offerings are plant-based by 2030.

While Barilla, Conagra, Kraft Heinz, Mengniu, and Nestlé report quantitatively, they have not set targets.

BOX 1: PROTEIN DIVERSIFICATION WITH A NUTRITION LENS

Animal-based products, including meat, dairy, eggs, have long been a core element of national dietary guidelines around the world, being good sources of bioavailable protein and key vitamins and minerals that are often lacking in plant-based alternatives. Overconsumption, especially of processed meats, is associated with high cholesterol, saturated fats intake, and greater risk of heart disease. Plant-based substitutes can reduce reliance on animal products, but are often (but by no means always) criticized for their high levels of processing, long ingredient lists, and high sodium levels, as well as higher prices.

In the 2024 Global Index, 12 companies included expanding their plant-based product offerings as part of their nutrition strategies. However, few made a meaningful connection between these products and improved nutrition outcomes, often appearing to assume that plant-based automatically equates 'healthy', without addressing potential health concerns. While the three companies with quantitative plant-based targets also have targets to increase sales of 'healthier' products (see: the 2024 Global Index Nutrition Governance report for further details), these targets remain separate, so progress in one does not guarantee the other.

Ideally, plant-based sales targets would therefore integrate nutrition criteria. Conagra sets a promising precedent with a target to ensure 70% of its vegan and vegetarian meals and meat alternatives are rated Nutri-Score A or B.

While most Global Index 2024 companies disclose some activity in this space, only a small group have set clear, sales-based plant-based targets, with Nestlé standing out for portfolio-level disclosures. Progress is further limited by the lack of integration between plant-based growth strategies and nutrition goals, meaning expansion does not always translate into healthier offerings. To deliver real impact, companies must pair measurable diversification targets with nutrition criteria, ensuring plant-based growth supports both sustainability and health.

SOIL HEALTH AND AGRO-BIODIVERSITY

As of 2021, around one-third of global soils were moderately to highly degraded, with soil erosion disrupting soil functions, reducing crop yields, and causing losses of about 7.6 million tonnes of cereals annually.[8] Expanding regenerative agriculture can enhance agrobiodiversity, resilience, and nutrition, while decreasing water and input requirements.[9]

Of the 28 Global Index companies assessed, all but three companies, at minimum, provided qualitative evidence of improving soil health or increasing agrobiodiversity in their production or sourcing practices. Of these, five companies - Arla, Conagra, Grupo Bimbo, Nissin, and Unilever – reference this topic explicitly in their nutrition strategies.

Seven companies have set specific, time-bound regenerative agriculture targets and report annually on progress:

- **Targets in terms of land area**: General Mills, Grupo Bimbo, KDP, PepsiCo, Unilever.
- **Targets in terms of percentage of ingredients sourced**: Danone, Grupo Bimbo, Nestlé.

Several companies have regenerative agriculture programs in place for specific supply chains: Campbell's (tomatoes), Conagra (carrots, peas, green beans, and popcorn), and Ferrero (hazelnut) and Hershey (sugar beet). Coca-Cola, meanwhile, sets requirements for its suppliers to maintain soil health and prevent degradation, while Hormel Foods expects its agricultural suppliers to have a soil management plan and regenerative agriculture projects in place. However, these companies fall short of setting measurable, time-bound targets and reporting progress against them.

Overall, while most companies acknowledge soil health and biodiversity in their practices, only a few have translated these commitments into measurable, time-bound regenerative agriculture targets with regular reporting. Expanding beyond supply chain programs and general supplier requirements, companies will need to formalize and scale their efforts to ensure real progress in restoring soils and strengthening food system resilience.

FOOD LOSS AND WASTE (FLW)

FLW offers companies a key opportunity to improve both sustainability and nutrition access. Around 40% of food (2.5 billion tonnes) is wasted annually—nearly half at farm level—driven by factors such as processing losses, poor storage, packaging, transport, and inaccurate forecasting.[10] Food waste accounts for about half of food system emissions and 8–10% of total global GHGs.[11] Discarded food means that all of the environmental impacts arising from its production could have been avoided.

Furthermore, FLW is detrimental to food security, especially in countries and regions responsible for production of ingredients, and action by companies in this area can therefore support their efforts to drive greater accessibility of nutritious food. Consequently, Sustainable Development Goal (SDG) 12.3 calls for a 50% reduction by 2030.

15 of the 28 companies, at minimum, either measure FLW across their operations or provided evidence of activities to collaborate with value chain partners to prevent FLW. Of these, five Global Index companies - Arla, Conagra, Grupo Bimbo, Nissin, and Unilever – explicitly referenced or committed to reducing FLW as part of their nutrition strategies; the other ten companies address the topic separately.

Ten companies set quantitative targets to reduce FLW, of which eight are comprehensive:

- **50% reduction by 2030 (SDG 12.3-aligned)**: Arla (2015 baseline), Campbell's (2017), Danone. (2020), Grupo Bimbo (not disclosed), Hormel (not disclosed), Kellogg's (2016), Nestlé (2016), Unilever (2019).
- **50% reduction by 2050**: Ajinomoto (2018).
- **20% reduction by 2025**: Kraft Heinz (2020).

Ajinomoto, Danone, Campbell's, Kellogg's, Grupo Bimbo, and Unilever report regularly on their FLW performance and have shown reductions between 2021 and 2022. Five companies – Arla, Hormel, Kraft Heinz, and Nestlé – had not disclosed progress against their targets as of 2021.

Fifteen companies had not yet set targets or publicly aligned their FLW strategies with SDG 12.3, despite

the scale of their operations, at the time of the 2023 FAB research.

Overall, while several companies are beginning to set targets and disclose progress on food loss and waste, commitments remain uneven and fragmented. Fewer than half of assessed companies have aligned with SDG 12.3, and many lack transparent reporting on outcomes. To realize the full potential of FLW reduction—for both sustainability and nutrition security—companies must adopt comprehensive, time-bound targets, track performance consistently, and expand accountability across their value chains. humanity's ability to produce food and achieve nutrition security.

8 COMPANIES HAVE SET A SDG 12.3-ALIGNED FLW REDUCTION TARGET

RECOMMENDATIONS

Across emissions, protein diversification, food loss and waste, and regenerative agriculture, a consistent pattern emerges: while many of the world's largest food and beverage manufacturers recognize these issues and address them in their sustainability strategies, relatively few have translated these into comprehensive, time-bound targets with regular and transparent reporting. Scope 3 emissions, plant-based growth strategies, FLW reduction, and regenerative practices remain fragmented and often lack integration with nutrition and health goals.

To accelerate progress, companies must move beyond pilot projects and partial disclosures to adopt ambitious, measurable commitments that are aligned with global goals, ensure accountability, and drive transformation at scale across their value chains.

To this end, ATNi recommends the following:

1 Adopt comprehensive, time-bound targets

- Cover all material impact areas (including Scope 3 emissions, protein diversification, food loss and waste, and regenerative agriculture).
- Align with global frameworks such as the Paris Agreement and SDG 12.3.

2 Ensure transparent and consistent reporting

- Regularly publish quantitative data linked to targets.
- Standardize metrics where possible to allow comparability and accountability.

3 Integrate sustainability with nutrition and health goals

- Link plant-based product targets to nutrition standards.
- Ensure diversification strategies support both environmental and health outcomes.

4 Scale beyond pilots and partial commitments

- Move from supply chain–specific programs or regional targets to global, company-wide strategies.
- Embed sustainability requirements across all sourcing and product lines.

5 Leverage innovation and collaboration

- Invest in R&D for alternative proteins and regenerative practices.
- Work with suppliers, peers, and policymakers to scale systemic solutions.

ANNEX 1

OVERALL SCORES AND RANKINGS

Company Name	2024 Global Index Score (/10)	2024 Global Index ranking (/30)	2023 F&A Benchmark Environment Score (/100)	2023 F&A Benchmark Environment Ranking (/350)
Danone	6.4	1	71.8	1
Unilever	5.1	5	65.9	2
Nestlé	3.7	9	59.0	3
General Mills	3.2	14	46.3	15
Ajinomoto	1.9	24	44.7	17
Conagra	2.6	21	43.8	23
Grupo Bimbo	5.4	3	42.1	27
Campbell's	4.1	7	39.7	34
PepsiCo	4.5	6	38.0	35
Suntory	2.1	22	37.5	37
Arla	5.4	4	36.5	40
Hershey	1.1	29	35.0	50
Mondelez	2.8	20	33.6	59
Kraft Heinz	3.0	16	31.3	69
Kellanova (Kellogg's)	3.7	8	31.2	71
Meiji	3.3	11	30.0	77
Keurig Dr Pepper (KDP)	2.0	23	29.8	78
Barilla	2.9	19	28.9	82
Ferrero	1.3	27	27.6	90
Coca-Cola	3.3	12	25.5	103
Mars	3.1	15	25.4	104
FrieslandCampina	5.6	2	23.8	116
Mengniu	2.9	18	19.2	155
Hormel	1.7	25	19.2	156
Indofood	1.5	26	10.3	208
Lactalis	0.7	30	9.5	213
Lotte Group	1.1	28	9.3	216
Yili	3.3	10	3.3	276
Flora FG	3.3	13	-	
Nissin	3.0	17	-	

ANNEX 2

2023 F&A BENCHMARK ENVIRONMENT: INDICATOR-LEVEL RESULTS PER COMPANY (ALL SCORES /1)

	Scope 1 & 2 GHG emissions	Scope 3 GHG emissions	Ecosystem conversion	Sustainable fishing and aquaculture	Protein diversification	Soil health and agro-biodiversity	Fertiliser & pesticide use	Water withdrawal	Food loss and waste	Plastic use & packaging waste	Animal welfare	Antibiotic use & growth-promoting substances
	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12
Ajinomoto	1	0.6	0.6	N/A	0.25	0.2	0	0.67	1	0.4	0.2	0
Arla	1	1	0.2	N/A	0.25	0.2	0.2	0.17	0.4	0.2	0.4	0
Barilla	0.75	0	0	N/A	0.5	0.2	0.2	0.33	0	0.6	0.4	0.2
Campbell's	1	0.4	0	0.25	0.25	0.4	0.4	0.67	0.6	0.2	0.6	0
Mengniu	0.25	0	0.2	N/A	0.5	0.2	0.4	0.17	0	0.2	0.2	0
Conagra	0.75	0.4	0.2	0.25	0.75	0.6	0.6	0.50	0	0.6	0.6	0
Danone	1	1	0.6	0.25	0.5	0.6	1	0.67	1	0.8	1	0.2
Ferrero	0.5	0.2	0.4	N/A	0	0.2	0.2	0.33	0	0.6	0.4	0.2
FrieslandCampina	1	1	0	0	0.25	0.2	0	0.00	0	0.2	0.2	0
General Mills	1	0.6	0.4	0	0.25	0.6	0.6	0.50	0.8	0.4	0.4	0
Grupo Bimbo	1	0.6	0	N/A	0.5	0.6	0.2	0.33	0.8	0.4	0.2	0
Hormel Foods	0	0	0	N/A	0.25	0.2	0	0.67	0.2	0.2	0.4	0.2
Indofood	0	0	0	N/A	0	0.2	0.4	0.33	0	0.2	0	0
Kellogg's	0.25	0.4	0	N/A	0.25	0.2	0.2	0.33	1	0.4	0.4	0
Keurig Dr Pepper	0.25	0.2	0.2	N/A	N/A	0.4	0.2	0.33	0.2	0.6	N/A	N/A
Kraft Heinz	0.75	0.4	0.2	0	0.5	0.2	0	0.50	0.2	0.6	0.4	0
Lactalis	0.25	0	0.2	N/A	0	0	0	0.00	0	0.4	0.2	0
Lotte	0.75	0	0	0	0	0	0	0.17	0	0.2	0	0
Mars	0.5	0.6	0.4	0.25	0	0.2	0	0.50	0	0.6	0	0
Meiji	1	0.6	0	N/A	0	0.2	0	0.50	0.2	0.6	0.2	0
Mondelez	0.75	0.2	0	N/A	0.25	0.2	0.2	0.50	0.2	0.8	0.6	0
Nestlé	1	1	0.2	0.5	0.75	0.6	0.2	0.83	0.4	0.8	0.6	0.2
PepsiCo	1	1	0.2	N/A	0.25	0.4	0.2	0.33	0	0.4	0.4	0
Suntory	0.5	0.6	0	N/A	N/A	0	0.2	0.50	0.4	0.8	N/A	N/A
Coca-Cola	0.25	0.4	0	N/A	0.25	0.2	0.2	0.50	0	0.8	0.2	0
Hershey	0.5	0.6	0.2	N/A	0.25	0.4	0.2	0.50	0	0.6	0.6	0
Unilever	1	0.8	0.8	N/A	0.75	0.4	0.2	0.50	1	0.8	0.8	0.2
Yili	0	0	0	0	0	0	0	0.00	0	0.4	0	0
Average:	0.64	0.45	0.18	0.15	0.29	0.28	0.21	0.40	0.30	0.49	0.36	0.05

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