# DAIRY METHANE ACTION PLAN

(DMAP)

Environmental Defense Fund

DAIRY METHANE ACTION ALLIANCE

Ceres

# DAIRY METHANE ACTION PLAN (DMAP)

## 1 Part 1: Key disclosures

**Annual methane emissions disclosure**

**Total GHG emissions (Mt $CO_2e$/year)**
Global warming potential (GWP) source used (e.g., IPCC Sixth Assessment Report – AR6 –100 year): IPCC- AR5- GWP100

| | Baseline reporting year [10/2018-09/2019] | Previous reporting year [10/2023-09/2024] | Current reporting year [10/2024-09/2025] |
|---|---|---|---|
| Units | Mt $CO_2e$ | Mt $CO_2e$ | Mt $CO_2e$ |
| **Scope 1** | 335,534 | 388,385 | 382,447 |
| **Scope 2**<br>Location-based or<br>Market-based | 330,803 | 229,596 | 173,537 |
| **Scope 3** | 11,939,883 | 12,447,628 | 12,939,923 |
| **Total (Scope 1-3)** | 12,606,220 | 13,065,610 | 13,495,908 |

**Agricultural methane emissions from dairy supply chain**

Global warming potential (GWP) source used (e.g., IPCC Sixth Assessment Report – AR6 –100 year): IPCC- AR5- GWP100

| | Baseline reporting year [10/2018-09/2019] | | Previous reporting year [10/2023-09/2024] | | Current reporting year [10/2024-09/2025] | | Current reporting year % of dairy methane emissions |
|---|---|---|---|---|---|---|---|
| Units | Mt $CH_4$ | Mt $CO_2e$ | Mt $CH_4$ | Mt $CO_2e$ | Mt $CH_4$ | Mt $CO_2e$ | % |
| **Scope 1** | NA | NA | NA | NA | NA | NA | |
| Scope 1, enteric | - | - | - | - | - | - | |
| Scope 1, manure management | - | - | - | - | - | - | |
| Scope 1, feed | - | - | - | - | - | - | |
| **Scope 3** | | 787,353 | | 826,971 | | 852,444 | |
| Scope 3, enteric | 16,591 | 464,538 | 17,425 | 487,913 | 17,962 | 502,942 | 59% |
| Scope 3, manure management | 11,248 | 314,941 | 11,814 | 330,788 | 12,178 | 340,978 | 40% |
| Scope 3, feed | 281 | 7,874 | 295 | 8,270 | 304 | 8,524 | 1% |
| **Total (Scope 1+3)** | 28,120 | 787,353 | 29,535 | 826,971 | 30,444 | 852,444 | |

**Agricultural dairy methane as % of total GHG emissions**

| | Baseline reporting year [10/2018-09/2019] | Previous reporting year [10/2023-09/2024] | Current reporting year [10/2024-09/2025] |
|---|---|---|---|
| Units | % | % | % |
| **Scope 1** | NA | NA | NA |
| Scope 1, enteric | - | - | - |
| Scope 1, manure management | - | - | - |
| Scope 1, feed | - | - | - |
| **Scope 3** | 6.41 | 6.44 | 6.40 |
| Scope 3, enteric | 3.78 | 3.80 | 3.78 |
| Scope 3, manure management | 2.57 | 2.58 | 2.56 |
| Scope 3, feed | 0.06 | 0.06 | 0.06 |
| **Total (Scope 1+3)** | 6.41 | 6.44 | 6.40 |

## Emissions reduction targets

**Company's total GHG emissions reduction target:**

- Target: We aim to achieve 50% absolute reduction in scope 1, 2 and 3 greenhouse gas (GHG) emissions, representing all of Starbucks direct operations and value chain, by the end of 2030, using FY19 as our baseline. We are actively reassessing our 2030 emissions reduction target while we evaluate the implications of emerging regulations, ongoing updates to relevant standards and other developments (including headwinds that impose significant challenges for the achievement of the goal). We intend to continue to take action designed to manage our greenhouse gas emissions across our operations and supply chains and expect to announce updates to our approach in the near future.
- Year target was set: 2020
- Scopes and categories included/excluded: Categories excluded: Category 8 – Upstream Leased Assets, Category 11 – Use of Sold Products, Category 13 – Downstream Leased Assets
- External framework alignment: Submitted and approved by Science-based Targets initiative (SBTi)

**Company's dairy methane emissions reduction target:**

- No specific dairy methane target set

## Qualitative explanation of key sources of dairy methane in company's operations and supply chain

Fluid dairy (whole, 2%, nonfat, half-and-half, and heavy cream) purchases represented 13% of our total global carbon footprint in FY25, with dairy methane representing approximately 6.4% of our total Scope 3 emissions in FY25.
Methane accounts for approximately 60% of the total greenhouse gas profile emitted from dairy production. The remaining is primarily carbon dioxide and nitrous oxide.
Key sources of methane within our dairy supply chain are from enteric fermentation and manure management. These two sources of methane account for approximately 99% (59%, 40%, respectively) of the methane associated with dairy production, with feed production representing an additional 1% of methane emissions.
Our dairy methane action plan and data values reported focus on methane associated with the fluid milk volume within our global company operated markets including the US, Canada, UK, China, and Japan. Starbucks has updated its Dairy Methane Action Plan since initial disclosure in 2025.

## 2 Part 2: Strategies to reduce dairy methane

### FARMER AND SUPPLIER ENGAGEMENT STRATEGY

#### Dairy methane sources addressed

Our dairy methane action plan addresses dairy methane from enteric fermentation and manure management associated with the fluid milk supply in our global company operated markets.

#### Context for strategy implementation

✓ How this strategy will address material climate-related physical and transition risks to the company

Notwithstanding the use of the word "material" in the prompt above, Starbucks response below should not be read to mean that the risks that are addressed necessarily rise to the level of materiality used for the purposes of complying with any applicable securities laws and regulations or other regulatory or reporting frameworks. Our approach to the responses herein may differ from our approach to disclosures we make in our filings with the U.S. Securities and Exchange Commission or under other regulatory or reporting frameworks.

This plan will support the reduction of methane emissions from dairy within our fluid milk supply at a global level . Addressing dairy methane will have the added benefit of contributing to global climate resiliency and supporting a more durable dairy supply.

✓ Scope, scale, and coverage across business

Our dairy methane action plan focuses on methane associated with the fluid milk volume within our global company operated markets.

✓ Business units involved

Starbucks manages strategy development, implementation, and reporting annually with support from each global market and several cross-functional teams. Sourcing partners coordinate changes in fluid milk sourcing. Financing partners support the design and on-going support of the internal financing model for implementation of methane interventions.

✓ Industry, government, trade, and/or NGO groups engaged

Industry – Dairy Management Inc through our Net Zero Initiative participation (through 2026); individual dairy cooperatives in the US; Dairy Farmers of Canada in Canada
Strategic partnerships and working groups engaged: Environmental Defense Fund (DMAA), Cool Farm Alliance, Sustainable Ag Initiative/Sustainable Dairy Platform, Dairy Sustainability Alliance, Value Chain Initiative

✓ Current status of strategy

Implementation

**Action items and key details**
For each action item, complete the information below.

✓ Concrete actions to advance strategy

Starbucks works to advance carbon project implementation through both market based instruments and working directly with dairy farms to identify and implement projects. For farm-direct projects, Starbucks works with project developers, service providers, dairy processors, dairy cooperatives, and/or farms to support whole farm carbon footprint assessments to identify areas for implementation of key greenhouse gas interventions with focus on enteric fermentation (e.g., enteric feed additives) and manure management practices (e.g., manure separators, manure covers, nutrient management, etc.) and provide cost-share funding to support implementation.

• Regions where interventions will be implemented

Regions of intervention support include our company-operated markets, with a focus on markets such as the United States which has a more established opportunity for market-based carbon reduction projects and accounting. Design and implementation will vary for each market region based on level of readiness, regional opportunity, and funding available. Starbucks has supported implementation across key dairy supply regions in the US.

• Expected start and completion dates

In 2025, Starbucks began scaling its program to identify market-based mechanisms for investing in dairy decarbonization projects focused on enteric methane and manure management. It is expected that Starbucks will continue these types of investments.

• Key performance indicators (KPIs) to track progress

Tons of greenhouse gas emissions (Mt CO2e) reduced
Number of projects implemented (#/year)

• Estimated emissions reductions for individual interventions

Measured, but not yet verified, market based reductions recorded for enteric and manure focused projects implemented in 2025 include:

- Enteric: 23,025* Mt CO2e
- Manure: 14,055* Mt CO2e

**These values are determined using project-based accounting and have not yet been validated or verified and are subject to change based on actual verification which tends to occur within 12-18 months after project implementation*

• Investments and capital expenditure alignment

In 2025, Starbucks invested approximately $8.5M directly in cost-share projects with whole-farm benefit, and $2.3M in market-based carbon reductions with a focus on enteric methane and manure management practices.

## INNOVATION STRATEGY

### Dairy methane sources addressed

Our innovation strategy will address dairy methane from enteric fermentation and manure management associated with the production of fluid milk supply in our global company operated markets (US, Canada, UK, China, Japan). In particular, we will explore supporting advancement of innovation in manure management options for mid-sized dairy farms, as this has been identified as a gap.

### Context for strategy implementation

✓ How this strategy will address material climate-related physical and transition risks to the company

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As opportunity arises, our innovation strategy will invest in innovation and/or opportunities to increase the availability of proven and effective methane reduction practices and technologies to dairy farms.

✓ Scope, scale, and coverage across business

Regions of intervention support include our global company-operated markets. Implementation of an innovation strategy will vary for each market region based on level of readiness, regional opportunity, and funding available.

✓ Business units involved

Each global market develops their own dairy innovation strategy.

✓ Industry, government, trade, and/or NGO groups engaged

Industry: Innovation Center for US Dairy through our Net Zero Initiative participation (through 2026)
Strategic partnerships and working groups engaged: Environmental Defense Fund (DMAA), Cool Farm Alliance, Sustainable Ag Initiative/Sustainable Dairy Platform, Dairy Sustainability Alliance, Value Chain Initiative

✓ Current status of strategy

Implementation

**Action items and key details**
For each action item, complete the information below.

✓ Concrete actions to advance strategy

Starbucks contributed $10M in funding over 5-years (2021-2026) to the US Net Zero Initiative to advance dairy innovation and research (see USDairy.com for more information).

• Regions where interventions will be implemented

US

• Key performance indicators (KPIs) to track progress

Annual dollars invested

• Investments and capital expenditure alignment

Invested $2M per year for 5-years

## PUBLIC POLICY ADVOCACY STRATEGY

**Dairy methane sources addressed**

Our public policy strategy will address dairy methane associated with the fluid milk supply in our global company operated markets. Each market will establish their own public policy strategy with alignment to broader company messaging.

**Context for strategy implementation**

✓ How this strategy will address material climate-related physical and transition risks to the company

Notwithstanding the use of the word "material" in the prompt above, Starbucks response below should not be read to mean that the risks that are addressed necessarily rise to the level of materiality used for the purposes of complying with any applicable securities laws and regulations or other regulatory or reporting frameworks. Our approach to the responses herein may differ from our approach to disclosures we make in our filings with the U.S. Securities and Exchange Commission or under other regulatory or reporting frameworks.

Starbucks' public policy advocacy aligns with business goals. We are exploring a methane-specific advocacy plan.

✓ Industry, government, trade, and/or NGO groups engaged

NA

✓ Current status of strategy

Implementation with on-going review and adaptation

**Action items and key details**
For each action item, complete the information below.

✓ Concrete actions to advance strategy

We are investing within our global dairy supply sheds to progress methane reduction.
Where applicable, we will look to support existing grants/practices as a means to support farmers adopt better farming practices.

• Regions where interventions will be implemented

US

• Specific policies supported

We support policy around carbon markets to ensure integrity and equity amongst participants.
We will continue to advocate for safe and effective feed additive regulations.

• Participation in regulatory processes

NA

## 3 Part 3: Additional considerations for

### Barriers and systemic challenges related to DMAP implementation

✓ Barriers that prevent farmers and suppliers from adopting near-term methane mitigation solutions and how the company will address these barriers

Primary barriers to adoption of methane mitigation solutions by farmers include lack of information (funding (can't finance), and/or motivation). Additionally, farmers often lack awareness of the connection between practice adoption and other beneficial outcomes (e.g., milk production, resource protection, workforce safety, and animal wellbeing). We are addressing these barriers by partnering with dairy cooperatives and farms to pilot different strategies that will increase adoption. These include whole-farm carbon and manure management assessment to identify key areas of improvement; developing customized farm improvement plans; funding for farms to derisk adoption of carbon reduction practices; and supporting adoption of new innovation opportunities.

✓ Systemic challenges that limit scope of methane mitigation and intent to monitor

Before we can encourage adoption of feed additives for dairies within our supply chain, we require that they be verified safe and have a level of effectiveness that will make a measurable impact. We are tracking the development and commercialization of promising feed additives and will offer support where and when it is warranted to those products that meet our expectations.
Manure management is a significant contributor of methane emissions from dairy farms; however, there are a limited number of highly impactful technologies that are scalable and cost-effective. We are supporting efforts to help identify better and/or commercialization of manure management options to mid-sized farms, which make up the bulk of farm size.

### Just transition considerations

✓ Actions taken or that will be taken to ensure a just transition and to address risks of transition to suppliers, including farmers and farmworkers

Our program provides financial support to mitigate costs associated with the transition to new practices by dairy farmers. Additionally, we advocate for and support dairy cooperatives and farmers in seeking out and utilizing existing financing, grant, and government cost-share programs outside of our program to maximize financial opportunities for practice adoption.

✓ Activities to support the company's existing workforce, vulnerable customers, and at-risk communities during transition
*(e.g., sharing the cost of transition to low methane practices, considering food affordability)*

To mitigate the costs associated with adoption of beneficial manure management practices and approved (safe and effective) enteric feed additives, particularly those without beneficial return to the farm on increased milk production, we are providing financial support to farms to cover the cost of implementation. Additionally, we provide expert consultation with a service provider to identify manure management solutions for farms in our program, as well as technical assistance for implementation, where needed.

✓ Actions to consult and implement feedback from the company's workforce, suppliers, impacted communities, and NGOs

As part of our program, we regularly request and receive feedback from dairy cooperatives and farmers on the benefits and areas of improvement of activities. This includes the adoption of new practices such as enteric feed additives. We are working closely with farmers during the process of evaluating and adopting viable enteric feed additives and adapting where needed based on their feedback and needs.

### Measurement and accountability mechanisms in place

Starbucks ensures that all carbon accounting is aligned to accepted methodologies and follows assigned verification protocols as determined by the intervention type. Our GHG emissions accounting (physical inventory for Scope 1, 2, and 3) and market-based Scope 2 reporting follow the GHG Protocol and are verified through third-party limited assurance. Our project-based reduction accounting follows best-practices established by TCAT, AIM-Platform and others.

### Synergies of the DMAP with other sustainability goals and programs

Dairy has been identified as one of the top commodity contributors to our company's carbon footprint, and methane is one of the three primary greenhouse gases that make up a dairy farm's carbon footprint. Additionally, methane reduction practices can have co-benefits with other environmental resources such as water and air quality. Focusing on methane reduction also contributes to reducing near-term levels of atmospheric greenhouse gas levels, as the lifespan of methane in the atmosphere is significantly shorter than other greenhouse gases and will have a major near-term (approximately 12 years) impact.

### Disclosure of non-dairy methane emissions and plans to address them

NA

### Long-term planning for dairy methane reduction (beyond 5-10 years)

Starbucks will address dairy methane in line with company direction.