

# BAT Scope 3 2024 Simplified Methodology

## INTRODUCTION

### Standards and Boundaries

BAT's Scope 3 emissions reporting process aligns with the Greenhouse Gas (GHG) Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

We report emissions where British American Tobacco p.l.c. has operational control and include CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O within our CO<sub>2</sub>e emission reporting.

CO<sub>2</sub> emissions from biomass/biofuel production and combustion (biogenic emissions) are calculated but excluded from the reporting boundary, as are biogenic removals.

### Definition

**Scope 3 GHG emissions:** Indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions.

### Screening and Prioritisation

We conduct an annual screening of our Scope 3 categories through a third-party. As such, twelve Scope 3 emissions categories have been identified as relevant for BAT's screening. Among the twelve categories, Purchased Goods and Services (Category 1), Upstream Transportation and Distribution (Category 4), Use of Sold Products (Category 11), End-of-Life Treatment of Sold Products (Category 12), and Investments (Category 15) were identified as having the highest overall relevance (i.e. large to medium emissions volume, and medium to high ability to influence).

### Calculation Methodology

We utilise company data from several sources to facilitate the annual calculation of Scope 3 emissions. Data is collected by internal stakeholders and converted to carbon dioxide equivalent (CO<sub>2</sub>e) using a range of emissions factors from recognised databases and/or specific product Life Cycle Assessments (LCAs) conducted by third-party consultants. [BAT's Group Head of Sustainability] reviews and signs off the reported Scope 3 figures.

To improve the accuracy of our Scope 3 emissions data, we continuously refine the calculation methodology by acquiring more suppliers' data, shifting from industry-average to company-specific data, and refining assumptions and estimates.

Following calculation, the process is subject to limited assurance by qualified external assurance practitioners.

## FLAG Aligned Calculation Methodology

Given the large contribution of the Forest, Land, and Agriculture (FLAG) sector to global GHG emissions, in 2022 the Science-Based Targets Initiative (SBTi) launched the first FLAG target setting guidance to support companies in land-intensive sectors to set science-based targets that include land-based emissions and removals.

As the tobacco industry is considered a FLAG designated sector, BAT must account for and report its FLAG-related emissions in line with the SBTi FLAG Guidance and the latest GHG Protocol Land Sector and Removals Guidance (LS&R).

To conduct BAT's GHG FLAG inventory, both the SBTi FLAG Guidance and the LS&R Guidance are followed to ensure alignment with their respective corporate requirements.

## FLAG vs non-FLAG classification

Sources of FLAG-related emissions within BAT's upstream value chain are divided into three categories:

**Category A:** Tobacco leaf production.

**Category B:** Materials with a main component that is land-based.

**Category C:** Materials with multiple components, with at least one land-based component.

Emission sources (e.g. purchased goods) are assessed to determine whether a FLAG component was present or not. Then, they are reviewed at the most disaggregated level to identify whether they originated from agricultural or forestry-derived sources.

## A summary of the calculations undertaken is provided below:



### Category 1: Purchased Goods and Services

Purchased Goods and Services have been calculated using procurement data. This is captured across our operations and is utilised to form the basis of emissions calculations.

#### Materials

Purchased materials were extracted from the BAT Procurement System, and materials were allocated into broad categories based on spend type. In some instances, Units of Measure (UoMs) used within the procurement system required alteration to a standard weight measurement (i.e. kilograms). BAT utilises a library of UoM conversion factors based on multiple evidence points, such as material specifications and/or item specific weighing.

The standard weight used to allocate emission factors were as follows:

- Product Carbon Footprint (PCF) Data: Suppliers of key materials were requested to provide third-party verified PCF data, which was then used as emission factors to calculate CO<sub>2</sub>e emissions based on the volume of materials purchased.

- LCAs: Specific product LCAs were utilised where available, and/or proxy LCAs used where appropriate. In the absence of these datasets, the EcolInvent v3.11 database was utilised. The availability of LCAs for a wider range of our products enabled us to refine the use of emissions factors and their respective calculation methodology.
- If the EcolInvent v3.11 database did not have the relevant emission factors, a combination approach based upon the different materials used in the product was utilised.
- Emission factors for material groups having FLAG related impact were divided into three portions: non-FLAG, land use change, and land management. This was accomplished by closely examining the activities contributing to the total emission factor and identifying those exclusively associated with FLAG-related land management and land use activities. All identified activities were then aggregated to calculate the FLAG portion of the total emission factor. The non-FLAG portion was then computed by deducting the FLAG portion from the total emission factor. These individual portions were then multiplied by the total volume of respective material group to obtain the FLAG and non-FLAG emissions.

## Services

Spend data was used to estimate emissions. Two methods were used:

- Supplier specific emission factors: CDP data was used to source supplier specific Scope 1, 2 and 3 (upstream) reported emissions and annual revenue. Emissions per GBP revenue was then calculated per supplier and applied to the GBP spend by BAT for the corresponding supplier. This was applied where supplier specific emissions and revenue were published.
- Average Emissions Intensity: An average emissions intensity of tCO<sub>2</sub>e per GBP spend was calculated based on the Supplier Specific emissions intensity per service category and spending (i.e. separate emissions intensity for HR services, Professional Services etc). This average emissions intensity was then applied to the remaining spend per service category that had not already been accounted by the supplier specific emissions factor method.

The following procurement categories were removed from the calculations as their associated emissions were already reported in appropriate Scopes and categories:

- Fleet – Vehicle Fuel, Vehicle Lease (long term) – reported in Scope 1.
- Utilities – Elec, Gas, Utilities Other – reported in Scope 1 & 2.
- Fertilisers and Pest Control Products – reported in category 1 – Leaf.
- HR Services Payroll, Temporary Labour Services, included in other scope 1, 2 & 3 categories.

## Tobacco Leaf

Tobacco Leaf is a core raw material purchased by BAT and reported under Purchased Goods and Services. Emissions from tobacco leaf are categorised into FLAG and Non-FLAG. In alignment with the SBTi FLAG Guidance, all relevant emissions sources under FLAG have been included in the calculations. Data used in tobacco leaf calculations is collected via our internal reporting platform called 'Thrive'. Suppliers of tobacco submit data in relation to materials and resources used for growing and processing of tobacco. This data is apportioned based on the percentage of tobacco BAT purchased from the relevant supplier.

Emissions factors and default values for the calculation of the leaf value chain emissions were sourced from the EcoInvent v3.11 IPCC 2021, DEFRA 2024, IEA 2024, and IPCC Guidelines for National Greenhouse Gas Inventories. Biogenic emissions associated with biofuel combustion were calculated using DEFRA 2024 'Outside of scope' CO<sub>2</sub> conversion factors.



## Category 2: Capital Goods

Capital Goods expenditure is extracted from the same internal data set used to calculate Category 1 data 'Purchased Goods and Services'. This includes general production (machinery), technology (hardware and IT infrastructure) as well as R&D equipment.

Therefore, spend data was used to estimate emissions. Two methods are used:

- Supplier specific emission factors: CDP data is used to source supplier specific Scope 1, 2 and 3 (upstream) reported emissions and annual revenue. Emissions per GBP revenue are calculated per supplier and applied to the GBP spend by BAT for the corresponding supplier. This is applied where supplier specific emissions and revenue are published.
- Average Emissions Intensity: An average emissions intensity of tCO<sub>2</sub>e per GBP spend is calculated based on the Supplier Specific emissions intensity per service category and taxonomy Level 1 (i.e. separate emissions intensity for HR services, and Professional Services). This average emissions intensity is then applied to the remaining spend per service category that has not already been accounted for.



## Category 3: Fuel and Energy Related Activities

Fuel and energy related data is recorded within our EHS Reporting Tool and includes purchased fuels (coal, bioethanol, fuel oil, natural gas, petrol, grass/straw, CNG, LPG, diesel, biodiesel, LPG), electricity, heat (hot water), and steam. The data covers a reporting period of December 2023 to November 2024. DEFRA 2024 Well-to-Tank (WTT) and IEA 2024 emission factors are applied to the energy consumption to calculate emissions. WTT emissions for biomass/biofuels are categorised as biogenic emissions as per the SBTi guidance.



## Category 4: Upstream Transportation and Distribution

Freight movements of in-bound and out-bound finished goods or semi-finished products/materials owned by BAT, including all modes of transport (i.e. air, road, rail and sea) fall within this category. BAT calculates movement up until the change of product/material ownership. Data is either provided directly by the supplier managing control tower (in CO<sub>2</sub>e) based on their emission calculation methodology, or within our EHS Reporting Tool and converted to emissions using DEFRA 2024 emission factors.

In order to align with industry best practices, the following are included in the calculations:

- The application of higher emissions factors inclusive of Radiative Forcing (RF) for transportation by air.
- The application of higher Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components. These capture both emissions generated during fuel use for transportation as well as those generated at earlier stages of the fuel life cycle.

Emissions associated with BAT's storage and warehousing needs are calculated using the spend data. The method for estimating emissions is to apportion the supplier's reported emissions by BAT spend revenue.



## Category 5: Waste Generated in Operations

Waste volumes (tonnes) and disposal route (excluding waste incineration onsite which is captured in Scope 1) are recorded in our EHS Reporting Tool. DEFRA 2024 emission factors are allocated by specific waste type, (i.e. cardboard, filter tow, and general waste) as well as by specific disposal route (i.e. landfill, combustion or recycled). We apply waste emission factors obtained from DEFRA as they are regularly updated. For consistency purposes we apply these factors globally.



## Category 6: Business Travel

Business Travel is covered and recorded by a third-party service provider as well as within our EHS reporting tool. The global travel service provider covers most of BAT's markets (~80%) and the data set provides granularity such as origin and destination for flights, rail journeys as well as breakdown of trips by class. This allows for accurate allocation of emission factors, distinguishing between domestic, international, and short and long-haul travel. All data is provided in passenger.km.

For any travel not captured by the global service provider, we record business travel by air (business class and economy), rail, and rental vehicles within our Environment, Health and Safety (EHS) reporting tool. Aeroplane and train travels are reported in passenger.km, whilst rental vehicles travel is reported in litres or kg of fuel.

The emissions factors applied to the raw data are sourced from DEFRA 2024.

Emissions from hotels, taxis, seminars, travel management and other travel expenses are calculated using BAT's spend data. The method for estimating emissions is to apportion the supplier's reported emissions by BAT spend revenue.

To align with industry best practices, the following factors are included in the calculations:

- The application of higher emissions factors inclusive of Radiative Forcing (RF) for transportation by air.
- The application of higher Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components. These capture both emissions generated during fuel use for transportation as well as those generated at earlier stages of the fuel life cycle.



## Category 7: Employee Commuting

Employee headcount (including direct contractors) and location are recorded in our EHS Reporting Tool. The average commuting mode (e.g. car, bus, rail, tram, bicycle, walking) and distance are referenced from Numbeo. DEFRA 2024 Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components are allocated against total distances across transport modes (i.e. return journey for the typical amount of working days per year) to calculate emissions.

*Assumptions: Walking and cycling are assumed to have zero emissions. In total, it is assumed each employee commuted twice a day for 234 days in a year.*



## Category 9: Downstream Transportation and Distribution

The emissions associated with the transportation and distribution of products sent from BAT to retailer, paid for by a third-party, in addition to customers travelling from retailers having bought BAT products, are included in this category. Emissions are calculated based on total weight of products sold by BAT in the reporting period and an average travel distance for both scenarios to calculate total tonne km for each product type. The retail storage emissions are calculated based on total quantity of products sold and m<sup>2</sup> areas occupied by products in retail stores to calculate electricity consumption. DEFRA 2024 Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components are allocated.

*Assumptions: The average distance between customer and retailers is estimated to be 5km and the average distance between retailers and BAT warehouses is estimated to be 100km.*



## Category 11: Use of Sold Products

BAT produces a variety of products from cigarettes to New Categories products. Specific product LCAs are utilised where available and/or proxy LCAs are allocated. The availability of LCAs for a wider range of our products enables us to refine the use of emissions factors and their respective calculation methodology. The emissions associated with the use of products sold by BAT are defined as follows:

- Heated Products/Vapour: Emissions associated with charging of devices throughout a device's lifetime, and emissions associated with the use of e-liquid and tobacco blend.
- Tobacco Combustion: Emissions associated with the combustion of cigarettes, including cigarette paper and tobacco blend, and tobacco sold to third parties.
- Lighter Fuel: Emissions associated with the use of lighter fuel to light all combustible products sold in 2024.

Biogenic Emissions associated with the combustion of tobacco blend (biomass) are calculated using DEFRA 2024 'Outside of Scope' CO<sub>2</sub> conversion factors.



## Category 12: End of Life Treatment

End of Life emissions account for the disposal of final products and associated packaging used for sale and transportation of BAT products. LCAs, where available, and/or proxy LCAs, are used to calculate the emissions associated with End-of-life treatment of BAT sold products. The availability of LCAs for a wider range of our products enables us to refine the use of emissions factors and their respective calculation methodology.



## Category 14: Franchises

BAT has a franchise agreement for Reduced Risk Products<sup>†</sup> stores in the EU, for which emissions from electricity, gas oil and natural gas are estimated using Real Estate Environmental Benchmark data and the application of IEA and DEFRA 2024 emission factors.

We exited this business model in 2024, and use 2023 emissions to calculate 2024 emissions, prorated based on the month of operation within 2024.



## Category 15: Investments

BAT has joint ventures (JVs), or affiliated companies located across multiple countries. Emissions resulting from these investments are attributed to the BAT based on BAT's proportional ownership stake in each investee.

The total revenues of the affiliated companies and joint ventures, as well as BAT's revenue share, are derived from the BAT's financial statements, and adjusted to provide a representation of ownership throughout the year. Emission factors for relevant sectors and countries are sourced from the EORA EEIO database. Proxy country emissions factors are used where the specific country is not available in the database. Such factors are determined on the basis of geographical and economic comparability. Finally, emissions associated with BAT's investments are calculated accordingly, considering its proportional share of revenue and equity in each investee.

## External Data Sources:

- CDP: <https://www.cdp.net/en>
- EcoInvent: <https://support.ecoinvent.org/ecoinvent-version-3.11>,
- DEFRA Emission factors: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- IEA: <https://www.iea.org/data-and-statistics/data-product/emissions-factors-2024>
- IPCC 2006: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html>
- IPCC 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4 Agriculture, Forestry and Other Land Use. Chapter 11: N<sub>2</sub>O Emissions from Managed Soils, and CO<sub>2</sub> Emissions from Lime and Urea Application. Table 11.1
- EPA EEIO: <https://www.epa.gov/land-research/us-environmentally-extended-input-output-useeio-technical-content>
- EORA Global Supply Chain Database: <https://worldmrio.com/>
- IPCC Fifth Assessment report: <https://www.ipcc.ch/assessment-report/ar1/>
- Numbeo: <https://www.numbeo.com/traffic/>
- REEB:  
<https://www.betterbuildingspartnership.co.uk/sites/default/files/media/attachment/REEB%20Benchmarks%202015%20-%20Final.pdf>

\* Based on the weight of evidence and assuming a complete switch from cigarette smoking. These products are not risk-free and are addictive.

† Our Vapour product Vuse (including Alto, Solo, Ciro and Vibe), and certain products including Velo, Grizzly, Kodiak, and Camel Snus, which are sold in the U.S., are subject to FDA regulation and no reduced-risk claims will be made for these products without agency clearance.

**References in our reporting publications to ‘British American Tobacco’, ‘BAT’, ‘Group’, ‘we’, ‘us’ and ‘our’ when denoting opinion refer to British American Tobacco p.l.c. and when denoting business activity refer to British American Tobacco Group operating companies.**

## Appendix: Selected Scope 3 Information

Selected Scope 3 Information	Thousand tCO <sub>2</sub> e	tCO <sub>2</sub> e
Total Scope 3 CO <sub>2</sub> e	4,789	4,789,251
Total Scope 3 Industrial (Non-FLAG) emissions	4,291	4,291,387
Total Scope 3 FLAG emissions	498	497,865
Category 1: Purchased Goods and Services	3,038	3,038,427
Category 1: Purchased Goods	1,392	1,392,239
Category 1: Purchased Services	992	991,846
Category 1: Purchased Tobacco Leaf	654	654,342
Category 2: Capital Goods	57	56,562
Category 3: Fuel and Energy Related Emissions	152	152,180
Category 4: Upstream Transportation and Distribution	324	324,006
Category 5: Waste Generated in Operations	2	1,529
Category 6: Business Travel	89	88,714
Category 7: Employee Commuting	59	58,940
Category 9: Downstream Transportation and Distribution	16	15,763
Category 11: Use of Sold Products	240	239,739
Category 12: End-of-Life Treatment of Sold Products	119	118,624
Category 14: Franchises	0	462
Category 15: Investments	694	694,304
Total Scope 3 Biogenic emissions	1,671	1,670,781
Total Category 1 Biogenic emissions	1,199	1,199,243
Total Category 11 Biogenic emissions	465	465,321