

BAT Scope 3 2023 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 emission where British American Tobacco p.l.c. has Operational Control and include CO₂, CH₄ and N₂O within our CO₂e emission reporting.

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 were identified as relevant for BAT's screening. Among the twelve identified 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 different sources to facilitate the annual calculation of Scope 3 emissions. Data is collected by internal stakeholders and converted to Carbon Dioxide Equivalent (CO₂e) using a range of emission factors from recognised databases and/or specific product Life Cycle Assessments (LCAs) conducted by third-party consultants. Following calculation, the process is subject to limited assurance by qualified external assurance practitioners. BAT's Head of Operations Development and 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 applied by acquiring more suppliers' data, shifting from industry-average to company-specific data, and refining the assumptions and estimates.

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 & Removals Guidance.

To conduct BAT's GHG FLAG inventory, both the Science-Based Targets Initiative (SBTi) FLAG Guidance and the Land Sector and Removals (LS&R) Guidance were followed to ensure alignment with their respective requirements to corporates.

FLAG vs non-FLAG classification

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

Category A – Tobacco leaf production

Category B – Materials with a main component being land-based

Category C – Materials with multiple components, and with at least one land-based component

Emission sources (e.g. purchased goods) were assessed to determine whether a FLAG component was present or not. Then, they were reviewed at the most disaggregated level to identify whether it 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 spending. In some instances, Units of Measure (UoMs) used within the procurement system required alteration to a standard weight measurement (i.e. kilograms). BAT utilise a library of UoM conversion factors which is based upon multiple evidence points, such as material specifications and/or item specific weighing.

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

- LCAs: Specific product LCAs were utilised where available and/or proxy LCAs used where appropriate. In the absence of these datasets, the Ecoinvent v3.9.1 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 Ecoinvent v3.9.1 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 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 with 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 tCO₂e 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
- Fertilizers 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. Emissions factors and default values for the calculation of the leaf value chain emissions were sourced from the ecoinvent v3.9.1 IPCC 2021, Defra 2023, IEA 2023 and IPCC Guidelines for National Greenhouse Gas Inventories.



Category 2: Capital Goods

Capital Goods expenditure is extracted from the same internal data set that is 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 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 tCO₂e per GBP spend was calculated based on the Supplier Specific emissions intensity per service category and taxonomy Level 1 (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 have 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 November 2022 to December 2023. DEFRA 2022 and IEA 2023 emission factors were applied to the energy consumption to calculate emissions.



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 calculate movement up until the change of product/material ownership. Data is either provided direct from the supplier managing control tower (in CO₂e) based on their emission calculation methodology, or within our EHS Reporting Tool and converted to emissions using DEFRA 2023 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 allowed us to 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 were calculated using the spend data. The method for estimating emissions is therefore 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 within our EHS Reporting Tool. DEFRA 2023 emission factors were allocated by specific waste type, (i.e. cardboard, filter tow, 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 have applied 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 is covering 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 has allowed 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 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 have been sources from DEFRA 2023.

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

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 allowed us to 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 within our EHS Reporting Tool. The average commuting mode (e.g. car, bus, rail, tram, bicycle, walking) and distance have been referenced from Numbeo, a source aligned to GHG guidance. DEFRA 2023 Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components were allocated against total distances across transport modes (i.e. return journey for the typical amount of working days per year) to calculate emissions.

Assumptions: All employees are assumed to commute to their place of work, as opposed to work from home, and walking and cycling are assumed to have zero emissions. In total, it was assumed each employee commuted twice a day for 234 days in a year. No calculations for working from home are included.



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, m2 areas occupied by products in retail stores to calculate the electricity consumption. DEFRA 2023 Well-to-Wheel (WTW) emissions factors inclusive of both Well-to-Tank (WTT) and Tank-to-Wheel (TTW) components were allocated.



Category 11: Use of Sold Products

BAT produce a variety of products from cigarettes to New Categories products. Specific product LCAs were utilised where available and/or proxy LCAs were allocated. 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. 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.
- Lighter Fuel: Emissions associated with the use of lighter fuel to light all combustible products sold in 2023.

Assumption: It was assumed that 90% of cigarette paper and tobacco blend are combusted in cigarettes and similar products. The remaining 10% of the product is assessed in Category 12 End of Life Treatment.



Category 12: End of Life Treatment

End of Life emissions accounts for the disposal of final products and associated packaging used for sale and transportation of BAT products. LCAs, where available, and/or proxy LCAs, were used to understand the split of different disposal routes for different material types of BAT products. The disposal route splits were then adjusted to reflect the end market in which products were sold. Using recycling research, BAT undertook into its 25 key markets. 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.

Assumptions: Using the market-specific recycling research allowed for a market specific emission factor to be attributed to those top 25 markets and where market-specific information was not available, global average emission factors were utilised. Recycling rates provided through the Waste Footprint exercise were also halved to consider consumer behaviour.



Category 14: Franchises

BAT have a franchise agreement for Reduced Risk Products[†] 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 2023 emission factors.



Category 15: Investments

BAT has joint ventures (JVs) or affiliated companies located across multiple countries. Emissions resulting from these investments have been 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, were obtained from the BAT's financial statements. Emission factors for relevant sectors and countries were sourced from the US EPA EEIO database. Proxy country emissions factors were used where the specific country was not available in the database. Such factors were determined on the basis of geographical and economic comparability. Finally, emissions associated with BAT's investments were 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-3.9.1>, <http://www.ecoinvent.org/support/faqs/methodology-of-ecoinvent-3/what-is-a-market-and-how-is-it-created.html>
- **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-2023>
- **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: N₂O Emissions from Managed Soils, and CO₂ 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/>
- **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 as to 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.

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