

## Introduction

### Standards and Boundaries

BAT's Scope 3 emission 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 PLC 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.

### Materiality and Prioritisation

A total of eleven categories were identified as having relevance for reporting as part of BAT's recent screening during its near-term target submission (SBTi), with Purchased Goods and Services (Category 1), Upstream Transportation and Distribution (Category 4), Use of Sold Products (Category 11) and End-of-Life Treatment of Sold Products (Category 12) identified as having the highest overall relevance (i.e. large to medium emissions volume, and medium to high ability to influence).

### Calculation Processes

BAT utilises 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 (CO<sub>2</sub>e) using a range of emission factors and/or Life Cycle Assessments (LCAs) by third-party consultants. Following calculation, the process is verified by an appropriately qualified third party to ensure integrity of the process. BAT's Head of Operations Development and Sustainability reviews and signs off these calculations and methodologies.

A high-level 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 taxonomy. 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 v3.7.1 database was utilised
- If the Ecoinvent v3.7.1 database did not have the relevant emission factors, we used a combination approach based upon the different materials used in the product

## 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 were 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. From 2021 CDP data was utilised for all reporting suppliers, as opposed to top suppliers only (as per previous years).
- Average Emissions Intensity: An average emissions intensity of tCO<sub>2</sub>e per GBP spend was calculated based on the Supplier Specific emission factors per service category (i.e. HR, Professional, Facility, Marketing, Production and Technology Services). This average emission factor was then applied to the remaining spend per service category that have not already been accounted for.

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

- Fleet – Vehicle Fuel: reported in Scope 1
- Logistics – Transportation: reported in Category 4 - Upstream Transportation & Distribution
- Travel – Passenger Transportation, Air Travel & Rail and Sea Travel: reported in Category 6 - Business Travel
- Utilities – Electricity, Gas, Utilities Other: reported in Scope 1 and 2

## Procurement of Tobacco Leaf

Procurement of Tobacco Leaf encompasses several elements as follows:

- Growth: volumes of fertiliser were logged/estimated in our internal Leaf Sustainability Tool (Thrive) and the Sustainable Tobacco Programme (STP), fertiliser utilised emission factors from the IPCC 2006 Guidelines for National Greenhouse Gas Inventories (Volume 4 Agriculture, Forestry and Other Land Use)
- On-Farm Transport: actual and estimated consumption of fuels for farm machinery are logged in the Thrive and STP, volumes of fuel used are converted to emissions using the DEFRA 2021 emission factors
- Curing: fuel volumes utilised to cure tobacco leaves were logged in our internal Thrive and STP. Where volumes were not available, estimates were calculated based on tobacco volume and the average global or country level emission factor for curing. All emission factors were based on the DEFRA 2021 combustion factor for the associated material used and based upon the curing year emission. From 2021 conversion factors to kg for wood logs has been updated to be more specific to tree species, based on most recent available research.

- Farm Electricity: actual grid consumption and onsite generation from key farms logged within the Thrive and STP and IEA 2021 country specific grid emission factors were used. Data extrapolated based on tonnes of tobacco purchased to farms not reporting in the Leaf Sustainability Tool
- Transport: distances and vehicle types used to transport fertiliser / pesticides to farms and leaf from farms to BAT manufacturing points were logged in the Thrive and STP and converted to emissions using DEFRA 2021 emission factors



## Category 2: Capital Goods

Capital Goods expenditure is extracted from Category 1 Purchased Goods and Services data and includes general production (machinery) and technology (hardware and IT infrastructure) equipment. Quantis Scope 3 Evaluator emission factors for Food Beverage and Tobacco and Electrical and Optical Equipment are utilised to convert spend volumes into emissions.



## 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, wood logs, CNG, diesel, biodiesel, LPG), electricity, heat (hot water) and steam. The data covers a reporting period of November 2020 to December 2021. DEFRA 2021 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 suppliers (in CO<sub>2</sub>e) based on their emission calculation methodology, or within our EHS Reporting Tool and converted to emissions using DEFRA 2021 emission factors.

Upstream transport which is undertaken within BAT owned or leased vehicles is reported within Scope 1 under vehicle fuel.



## 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 2021 emission factors were allocated dependent upon disposal route (i.e. landfill, combustion or recycled).



## Category 6: Business Travel

Business Travel is recorded within our EHS Reporting Tool. For air, data includes passenger kilometre and class of travel, the data for rail includes passenger km and for rental vehicles it includes fuel used (litres or kg). DEFRA 2021 emission factors were allocated.

*Assumptions: all air travel is assumed to be international and to ensure consistency with historic reporting, radiative forcing is not included.*



## Category 7: Employee Commuting

Employee headcount (including direct contractors) and location are recorded within our EHS Reporting Tool. The average commuting mode (i.e. car, rail, walk, etc) and distance have been referenced from Numbeo, a source aligned to GHG guidance. DEFRA 2021 emission factors 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 2021. No calculations for homeworking are included.*



## Category 9: Downstream Transportation and Distribution

The emissions associated with the transportation 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.



## Category 11: Use of Sold Products

BAT produce a variety of products from cigarettes to New Category products. Specific product LCAs were utilised where available and/or proxy LCAs were allocated. The emissions associated with the use of products sold by BAT are defined as follows:

- Tobacco Heating Products / Vapour: emissions associated with charging of devices throughout a device's lifetime, and emissions associated with the use of eliquid
- 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 products sold in 2021

*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 20 key markets.

*Assumptions: Using the market-specific recycling research allowed for a market specific emission factor to be attributed to those top 20 markets and where market-specific information was not available, global average emission factors were taken. Recycling rates provided through the Waste Footprint exercise were also halved to consider consumer behaviour.*



## Category 14: Franchises

BAT have a franchise agreement for NC stores in the EU, for which emissions from electricity, gasoil and natural gas are estimated using Real Estate Environmental Benchmark data and IEA 2021 and DEFRA 2021 emission factors.

### External Data Sources:

- CDP: <https://www.cdp.net/en>
- DEFRA Emission factors: <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- IEA: <https://origin.iea.org/data-and-statistics/data-product/emissions-factors-2021>
- IPCC 2006: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/index.html>
- Numbeo: <https://www.numbeo.com/>
- Quantis Scope 3 Evaluator: <https://quantis-suite.com/Scope-3-Evaluator/>
- REEB  
<https://www.betterbuildingspartnership.co.uk/sites/default/files/media/attachment/REEB%20Benchmarks%202015%20-%20Final.pdf>

**ENDS**