



Upfield Basis of Preparation 2023

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General Reporting Principles

In preparing this guidance document consideration has been given to following principles:

- Information Preparation – to highlight to users of the information the primary principles of relevance and reliability of information.
- Information Reporting – the primary principles are comparability / consistency with other data including prior year and understandability / transparency providing clarity to users.

Scope and Coverage

This document summarises the definition, scope and data preparation for the performance measures listed below.

When indicated, the performance data includes Arivia, when the appropriate processes and systems have been implemented to enable consistent data collation and Upfield Group level consolidation.

Operations categorised as joint ventures or investments are excluded from the scope of all performance measures, unless otherwise indicated.

Upfield ensures that appropriate procedures are in place to report performance data, in all material respects, as set out in this document. These procedures ensure that Upfield has:

- designed, implemented and maintained internal controls and processes over information relevant to the measurement and preparation of the data that is free from material misstatement, whether due to fraud or error.
- established objective reporting criteria for measuring, preparing and reporting data and applied them consistently.
- presented information, including the criteria, in a manner that provides relevant, reliable, comparable and understandable information.
- and measured and reported data based on this reporting criteria.

Upfield's annual data is prepared for the 12-month period from 1st January to 31 December in accordance with internal reporting timelines.

100% plant-based

Performance measure

The percentage of Upfield's product sales by weight, whose characterising ingredients are derived from plants, and that don't contain any animal-derived product following the British Standards Institution ("BSI") PAS224:2020 standard.

Definitions

100% Plant-based foods should be food whose characterising ingredients are derived from plants and should not contain any animal-derived ingredient.

SKU: Stock Keeping Unit.

Sales by volume: The total weight of ingredients, measured in tonnes, of Upfield products sold by SKU.

Upfield products: All the products manufactured by Upfield's owned factories.

Scope

The performance measure covers all Upfield products, including Arivia.

Performance data preparation and assumptions

Plant-based compliance data by SKU for Upfield products is maintained in accordance with BSI PAS224:2020 standard.

The sales volume for all compliant SKUs is calculated on data sourced from Upfield's sales system.

Calculation

The total weight of plant-based ingredients sold divided by the total weight of ingredients of sold.

Diversity and Inclusion

Performance measures

The percentage of women employed by Upfield in the organisation.

The percentage of women employed by Upfield at the management level.

Definitions

Associates: Upfield employees.

Management: Associates who held a Manager, Head of, or Leadership pay band at Upfield.

Scope

The performance measures cover all Upfield employees, including Arivia.

Performance data preparation and assumptions:

Associates have the possibility to define their gender in Upfield's software for human capital management.

Data is extracted from Upfield's HR software.

Calculation

The total number of women employed by Upfield divided by the total number of associates as at 31st December 2023.

The total number of women at the management level employed by Upfield divided by the total number of management associates as at 31st December 2023.

GHG emissions

Performance measures

Metric tonnes of Greenhouse Gas (GHG) emissions from Upfield operations in operational control and Upfield's supply chain, as well as Third Party Manufacturers.

Definitions

Greenhouse Gas (GHG): Gases that trap heat in the atmosphere.

Scope 1: Direct GHG emissions occur from sources that are owned by Upfield.

Scope 2: Indirect GHG emissions associated with the generation of electricity, heating/cooling, or steam purchased for own consumption.

Scope 2 location-based: Indirect GHG emissions associated with the generation of electricity, heating/cooling, or steam purchased for own consumption using the average grid emissions factor for electricity in the country in which it is purchased.

Scope 2 market-based: Indirect GHG emissions associated with the generation of electricity, heating/cooling, or steam purchased for own consumption using emissions factors from contractual instruments which Upfield has purchased or entered into and meeting the GHG Scope 2 quality criteria.

Scope 3: Indirect emissions other than those covered in scope 2.

3PM: Third Party Manufacturer.

Scope

The performance measures cover all Upfield operations. Arivia acquired in 2020, and third party manufactured emissions.

Performance data preparation and assumptions

The measuring and reporting of GHG emissions data inevitably involves a degree of estimation. We continuously review our GHG footprint estimations to ensure we are using the best available data and thus improve the accuracy of our GHG emissions reporting.

Upfield collects and reports our greenhouse gas emissions mainly based on the ecoinvent and World Food LCA Database (WFLDB), which cover the GHG gases required by the Greenhouse Gas Protocol.

Scope 1 and 2

Refrigerant losses

Data is reported for losses from refrigeration units, based on refrigerant replaced/purchased on an annual basis provided by our factories.

Process Carbon

Data is reported for carbon dioxide used during manufacturing processes on an annual basis provided by our factories.

Energy

Data from our factories, including Arivia, is reported for electricity, primary fuel sources such as natural gas and locally generated energy sources on a monthly basis, with energy consumption data where possible are obtained via meters and collated from the service provider invoices. Where metered data is only partially available or not available, energy consumption may be estimated on the basis of the volume of products manufactured.

For our offices, electricity and gas use are estimated by multiplying floor area (m²) by benchmark from GRESB on an annual basis.

Fleet

Road travel includes assumptions about annual distance travelled by fleet cars. Details of road journeys, including distances travelled, engine size of vehicle and fuel type are submitted from the fleet providers.

Road data is obtained on an annual basis to feed the carbon accounting reporting.

Scope 3

The following GHG Protocol categories are included, being those considered material:

- Purchased goods & services
- Capital goods
- Fuel- and energy-related activities (FERA)
- Upstream transportation and distribution
- Waste generated in operations
- Business travel
- Employee commuting
- End-of-life treatment of sold products

This covers emissions related to our purchased ingredients, packaging, capital goods, well-to-tank and transmission & distribution losses associated with our energy consumption, upstream logistics, business travel, outsourced warehousing, waste disposal and water consumption in operations, employee commuting and packaging end-of-life of sold products, as well as products manufactured by third party.

Purchased goods & services included capital goods

- Ingredients and Packaging

Data (edible oils and other ingredients purchased, packaging, and other purchased goods and services) is obtained on a monthly basis through the procurement system.

Emissions for ingredients are estimated using tonnes of ingredients purchased multiplied by LCA emissions factors (IPCC 2021) for the closest matching product in the LCA databases. Several emissions factor databases were used as a result of the range of potential ingredients that Upfield purchase (see emissions factor hierarchy for ingredients).

Where there was no matching product (mostly for ingredients purchased in small quantities), the average emissions factor for the broader product type was used. The emissions factors include emissions from land-use and land-use change and for many of the tropical oils these emissions form the largest part of total emissions.

When a local factor exists for an ingredient and we have the location of the origin of this ingredient, the emissions factor for exact location of origin is used. In any other scenarios, the global emission factor is used to calculate the emissions for the ingredient.

Detailed land use change (LUC) assessment is performed for palm and soy, LUC emissions for palm are based on a causal statistical land use change (sLUC), leveraging a palm plantation presence map. LUC emissions for soy are currently estimated based on a subnational level sLUC leveraging crop distributions. All carbon pools subject to tree cover loss were considered.

Emissions associated with packaging and packaging manufacturing uses the total weight of raw packaging alongside the material types.

Purchased goods & services also includes:

- Third party manufactures

Data from 3PM production volumes is obtained on an annual basis.

Emissions associated with third-party manufacturer are estimated using emissions per tonne (Scopes 1, 2 and 3) for Upfield's in-house manufacturing multiplied by the 3PM production volumes.

- Arivia

Data from Arivia production volumes is obtained on an annual basis.

Emissions associated with Arivia are estimated using the LCA emission factor from Violife products multiplied by Arivia's production or sales volume, whichever data is available. The LCA emission factor from Violife products from Arivia was used to estimate the impact of the ingredients, transportation and end of life.

- Water

Emissions associated with water, based on total water consumption across Upfield's factories.

- Other purchased goods and services

These are intangible services, which are estimated using spend data from Upfield, and environmentally extended input output factors.

Fuel- and energy-related activities

These are calculated using the same sources of data as scope 1 and scope 2 emissions. The main components are well-to-tank emissions from the production of fuels, transmission, and distribution (T&D) losses for electricity and heat and well-to-tank emissions related to generation and T&D losses.

Upstream transportation and distribution

For the delivery of raw ingredients to Upfield's factories, emissions are calculated based on estimated distance from ingredient origins to factory locations, transportation mode and actual quantity distributed to each factory reported by Upfield.

For the distribution of Upfield's products from own factories to warehouses, data is reported per operation in Upfield's logistics system, and covers weight, distances, mode and ambient/refrigerated transport. Where logistics data is only partially available or not available, Upfield may estimate the distance, mode of transport using latitude and longitude of cities.

Energy consumption associated with warehousing is calculated using sold quantity multiplied by the warehouse energy intensity. The warehouse energy intensity (kWh per m3 per year) including natural gas and electricity are modelled based on PEFCR guidance.

Waste

Data is reported on a monthly basis across Upfield’s factories, actual data is obtained from waste service providers that collect the waste.

Business Travel

For air, rail travel and hotel stays, actual data is obtained from the business travel service agents on a monthly basis.

Employee commuting

Emissions are calculated based on the employee headcount of different regions multiplied by the emission factors per employee commuting per year. The employee headcount data from different regions are provided in the Upfield ESG Addendum. Data was available from the European commission on Transport statistics for the EU compared to several world countries. This data was used to calculate the comparative proportion of car, bus, rail, and tram/metro journeys taken. This was done by summing the car, bus, rail, and tram + metro categories to work out a percentage usage for each region.

End-of-life treatment of sold products

The packaging data by material type and quantity sold to different countries are provided by Upfield. The end-of-life disposal routes (incineration and landfill) are based on EU or national statistics.

Calculation

Source of emission factors

Source of emission factors	GHG Categories
World Food LCA database v3.8 and v3.5 Ecoinvent LCA v3.9.1 USEEEIO v2.1	Scope 3: Purchased good and services (PGS)
Ecoinvent LCA v3.9.1	Scope 1: fuels, vehicle use, refrigerants Scope 2: calculated steam EFs Scope 3 categories: <ul style="list-style-type: none"> • PGS (water) • FERA (T&D, WTT electricity) • Logistics • Waste in operations (waste, wastewater) • Downstream transportation and distribution (outbound & warehouse) • End-of-life treatment of sold products
DEFRA Greenhouse gas reporting conversion factors (2022)	Business travel (transport and hotel stays) Employee commuting
USEPA eGRID (2020)	Scope 2: location-based mix for US grid

WFLDB and Ecoinvent are both widely used industry standard databases. They were selected in consultation with the Anthesis Food and Agriculture Practice and ensure consistency with the extensive LCA work carried out for Upfield.

Emissions Factor Hierarchy for ingredients:

WFLDB v3.8 and v3.5 (exact location of origin) (IPCC 2021)
WFLDB v3.8 and v3.5 (Global Average) (IPCC 2021)
Ecoinvent 3.9.1 (Global Average) (IPCC 2021)

Global Warming Potential (GWP)

For ingredients, the following emissions factors have been used from IPCC AR6 as Upfield believes these factors are conservative:

CH4 (fossil): 29.8 (including climate-carbon feedback)
CH4 (biogenic): 27.2 (including climate-carbon feedback)
N2O: 273 (including climate-carbon feedback)

Calculation for Scope 2 location-based and market-based emissions

Upfield reports energy emissions under the location and market basis introduced by the revised Scope 2 guidance of the GHG protocol. Upfield has reviewed the revised guidance and has worked with service providers in 2023 to integrate the recommendations into Upfield's reporting methodology to enable Upfield to report using both location-based and market-based methodologies.

For market-based emissions reporting, Upfield applies the following hierarchy of emission factors:

1. Factors provided by electricity attribute certificates or equivalent instruments such as RECs
2. Factors provided by contracts for electricity
3. Factors provided by energy suppliers
4. Factors provided by the Association of Issuing Bodies (AIB) for the residual mixes in Europe, available in Ecoinvent v3.9.1.
5. National grid average emission factors based on consumption mix from Ecoinvent v3.9.1 when residual mix is not available or when residual mix's emissions are lower than national grid average emission factor

For location-based emission reporting; Upfield applies national grid average emission factors based on consumption mix from Ecoinvent v3.9.1.

Prior year adjustments

The measuring and reporting of GHG emissions data inevitably involves a degree of estimation. In certain circumstances restatements of prior year reported emissions and offset data may be required. Restatements are considered where there is a change in the data and/or in the data collection or preparation that will have material impact, 5% threshold, on the total emissions at Group level.

When new data is available or when Upfield evolves our methodology for more transparency and accuracy, Upfield estimates emissions for previous years based on production volumes for these past years.

Plastic

Performance measures

The percentage of plastic material as a proportion of total packaging materials purchased.
The percentage of material that is recyclable, reusable or compostable as a proportion of total packaging materials purchased.

The volume of plastic materials purchased by Upfield as a proportion of total production volume.

Definitions

Plastic: materials consisting of a polymer to which additives or other substances may have been added. Plastics currently used by Upfield include:

- polypropylene (PP),
- polyethylene (PE),
- polystyrene (PS),
- and polyethylene terephthalate (PET) for tubs, pots, bottles and sachets.

Primary packaging: packaging materials used for individual consumer units at the point of sale. Primary packaging comes into direct contact with the product itself.

Secondary packaging: packaging materials used for trade units. Secondary packaging is used to group several consumer units (stock keeping units) together. Recyclable: A packaging or packaging component is recyclable if its successful post-consumer collection, sorting, and recycling is proven to work in practice and at scale. Plastics must meet the following for conditions:

- the product must be made with a plastic that is collected for recycling, has market value and/or is supported by a legislatively mandated program.
- the product must be sorted and aggregated into defined streams for recycling processes.
- the product can be processed and reclaimed/recycled with commercial recycling processes.
- the recycled plastic becomes a raw material that is used in the production of new products.

Reusable: packaging which has been designed to accomplish or proves its ability to accomplish a minimum number of trips or rotations in a system for reuse (ISO 18603).

Compostable: packaging or packaging component is compostable if it is in compliance with relevant international composability standards and if its successful post-consumer collection, sorting, and composting is proven to work in practice and at scale.

Private Label: products manufactured by Upfield, not sold to consumers as an Upfield brand.

Scope

Packaging materials include primary and secondary packaging used for Upfield's products. This includes packaging from our third-party manufacturers.

Materials used across offices, supply chains and promotional materials are excluded, as well as private label products.

Performance data preparation and assumptions

Total packaging materials includes paper, cardboard, glass, metal, aluminium, composite packaging and plastic.

Totals for third party Upfield brands products are calculated by extrapolating the packaging per tonne used within Upfield to cover 3PM production volumes.

Upfield has developed a materials recyclability analysis. This assessment has been designed to substantiate the recyclability claims for each packaging material and polymer using a blend of sources, including On-Pack Recycling Label Scheme (OPRL), RecyClass Recyclability Methodology, Ellen MacArthur Foundation New Plastics Economy Commitment, How2Recycle Guide to Recyclability plus other packaging material specific industry guidelines. Packaging components are identified as reusable, recyclable, or compostable based on industry standards, supplier declarations and/or testing and certification by external experts.

A packaging must be 95% recyclable, reusable or compostable to be classified as recyclable, reusable or compostable.

Calculation

The total weight of plastic packaging purchased by Upfield and third-party manufacturers divided by the total weight of packaging purchased.

The total weight of reusable, recyclable or compostable packaging purchased by Upfield and third-party manufacturers divided by the total weight of packaging purchased.

The total weight of plastic packaging purchased by Upfield divided by the total weight of production.