





# **Greenhouse Gas (GHG) Emissions** Sectoral Guidance

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# Introduction, Purpose and Scope

Suppliers play an important role across the whole self-care value chain, including the cultivation and process of raw materials, packaging and material production, and transportation and distribution. At each point along the value chain, the choices of suppliers, producers, and customers impact the GHG footprint of the self-care industry.

This document is intended to be a simplified supplemental guidance for suppliers to the self-care industry, to be used in combination with global GHG other reporting protocols (e.g., WBCSD-WRI, corporate value chain accounting and reporting standard, product life cycle accounting and reporting standard and SBTI), for developing a GHG reduction strategy.





The aim is to provide suppliers with non-technical guidance and practical examples for calculating an accurate baseline GHG emissions footprint, establishing a broader climate change and decarbonization strategy, and quantifying the GHG footprint consistently over time to measure and transparently report progress.



# Value chain overview and impact on final product

EMISSIONS

# **Classification of Scope 1, 2 and 3 GHG emissions**

SCOPE 1 DIRECT EMISSIONS	The GHG emissions resulting from company operations at facilities controlled or owned by the company, including the direct emissions resulting from the combustion of fuels to generate electricity, heat, or steam; power physical or chemical processing; and fugitive emissions.
SCOPE 2 INDIRECT EMISSIONS	<ul> <li>Generally, fall into one of the following two categories:</li> <li>Emissions generated from directly purchased utilities such as electricity, steam, chilled water, refrigeration, or compressed air used at company-owned or controlled facilities.</li> <li>Emissions generated from indirectly purchased utilities at facilities controlled or owned by a company other than the reporting company, such as the energy used to run leased buildings and the operations within them, that are caused by the actions of the reporting company.</li> </ul>
SCOPE 3 VALUE CHAIN	The indirect emissions that occur in the reporting company's value chain, including upstream and downstream emissions, that are caused by the actions of the reporting company.

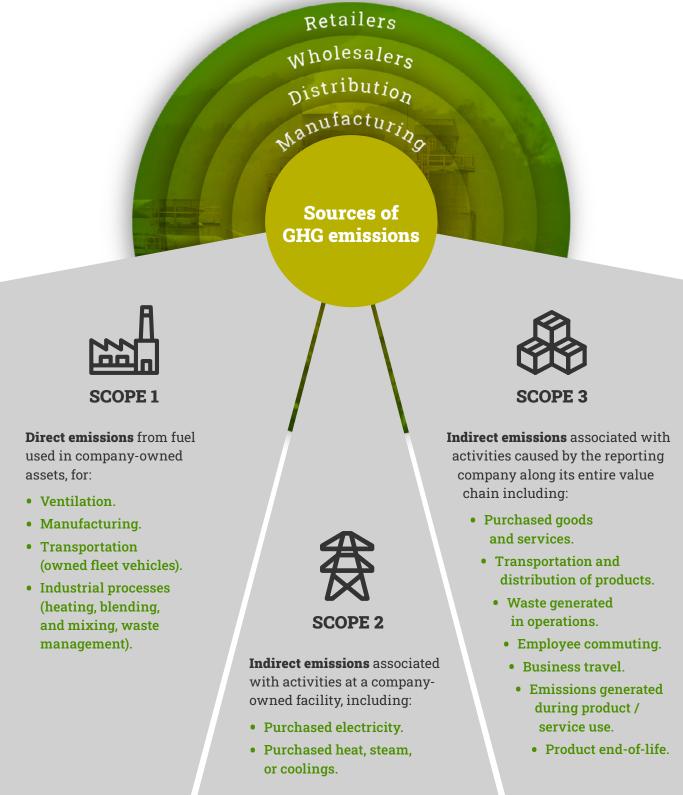
### Classification of Scope 1, 2 and 3 GHG emissions infographic



Source: Measure the Chain: Tools for Assessing GHG Emissions in Agricultural Supply Chains

# Sources of GHG emissions across the OTC supply chain

At each stage of the value chain (Manufacturing, Distribution, Wholesalers, Retailers), the typical sources of GHG emissions within a company are:



# **Calculating a GHG Emission footprint**

### **Enterprise Inventory Reporting**



1 Defining reporting period

Clearly state the period covered by the current report.

This is typically the fiscal year of a company.



# Define organizational boundaries (scope of reporting)

Use the **operational control approach** as defined by The GHG Protocol to define Scope 1 and 2 emissions.

Include all GHG emissions from operating facilities which are wholly owned and for which the company has operational control in its Scope 1 and 2 calculations. Clearly state any deviation from the Scope 1 and 2 inclusions / exclusions listed above when reporting GHG emissions. The latest Scope 3 protocol asks for reporting these emissions as Scope 3 emissions in case they are included in the Scope 1 and 2 reporting.

Clearly state the organizational and operational boundaries for which you are reporting.

Present any changes in organizational or operational boundaries (e.g., due to acquisitions or divestitures) to aid in a clear understanding of year-to-year performance changes.



An enterprise inventory is typically created through the aggregation of resource use (i.e., activity data) and emission factor data collected from each facility, and for each part of the value chain.

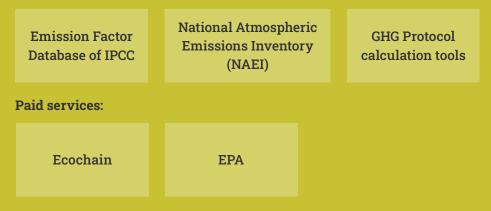


SCOPE 1 EMISSIONS

For each asset owned by the reporting company, data on resource use (Liters of diesel fuel or gasoline, therms of natural gas, tonnes of coal, etc.) is multiplied by the emissions factor – GHGs emitted from each unit of resource consumption (tonnes per Liter, tonnes per therm, etc.) – for that resource:

- Each emission source has an emission factor, which provides a value that represents the carbon equivalent emissions of one unit of this emission source.
- There are several databases with emission factors available, however, not all of them have free access.

#### Free databases and tools include:



After calculating the cumulative Scope 1 emissions for each facility, the enterprise Scope 1 emissions footprint can be determined by aggregating emissions from all facilities.



SCOPE 2 EMISSIONS For each source of indirect emissions (purchased electricity, steam, etc.), data on resource use (MWh of electricity, Joules of steam) is multiplied by the emissions factor (GHGs emitted per unit of resource consumption (tonnes per MWh, tones per joule, etc.), for that resource.

After calculating the cumulative Scope 2 emissions for each facility, the enterprise Scope 2 emissions footprint can be determined by aggregating emissions from all facilities.



**EMISSIONS** 

Emissions can be calculated multiple ways, depending upon the source of emissions, however, the calculation formula is the same as that described above.

For each source of Scope 3 emissions data on resource use is multiplied by the emissions factor for that resource.

After calculating the emissions footprint for each source of emissions, the enterprise Scope 3 footprint can be determined by aggregating emissions from all sources of Scope 3 emissions.



Product level emissions footprints

A product carbon footprint (PCF) is an estimation of the GHGs emitted across the entire lifecycle of a specific product.

While not required, PCFs are increasingly being requested by a suppliers' customers.

#### PCFs require a different evaluation of value chain emissions.

- Unlike an enterprise-based GHG footprint, Scopes 1, 2 and 3 emissions are not calculated.
- Instead, all emissions across the value chain of a specific product are accounted for and parceled to a functional unit of the product (i.e., sales unit, packaging container, serving size, or case of product sold).
- For PCFs, it is irrelevant whether GHG emissions are associated with companycontrolled operations (direct emissions) or with another entity (indirect emissions).
- Instead, the carbon life cycle is defined for an individual product category, and GHG emissions from across that life cycle are aggregated.
- Only the fraction of emissions from each value chain component that contributes to the specific product footprint are included in the product emissions total.

Product-level emission reporting, as presented in **Product Life Cycle Accounting and Reporting**.



The reporting company should report the complete inventory of Scope 1, 2 and 3 emissions for the reporting period and organizational boundaries described in Steps 1 and 2.



# **Data reporting**

### **Transparency**



### Alignment with this guidance (data sources: primary, 3rd party)

Clearly state your primary guidance document.



#### **Carbon offsets**

- **Carbon offsetting** means to balance out your own carbon footprint, by investing in emission reduction projects that aim to capture or avoid carbon emissions somewhere else.
- These can either be your own projects or someone else's and can take place anywhere outside your value chain (i.e., reforestation projects or carbon capture and storage).
- Carbon offsetting is generally used for the remaining carbon emissions of your own company that cannot be eliminated or reduced.
- Alternatively, carbon offsetting can be used to make your company climate positive (offsetting more emissions than are produced, resulting in a net negative value of total GHG emissions).

### **Data verification**



#### Recordkeeping

- Throughout the process of calculating an enterprise GHG emissions footprint, reporting companies should maintain records for the emission sources, calculations and data sources used in a manner that facilitates review by a third party.
- Reporting companies should document both primary and secondary data sources.



#### **Internal verification**

- Prior to third-party verification, reporting companies should conduct internal verification of thew GHG emissions estimation process.
- Internal verification may not increase the credibility of reported data, but is a useful tool to raise awareness of GHG emissions within an organization and identify shortcomings in data collection activities prior to engaging a third-party verifier.



#### 3<sup>rd</sup> party verification

- Companies reporting emissions are encouraged, but not required, to conduct an objective third-party verification audit of reported GHG emissions.
- Verification by a third party increases the credibility of publicly reported emissions estimates as well as supports the establishment and acceptance of the enterprise GHG emissions footprint is completed in a manner consistent with industry standards.
- Certain agencies and initiatives, including The Climate Registry, World Economic Forum Global GHG Registry, and the European Union Emissions Trading Scheme already require a form of emissions verification.



#### Discrepancies

- Any verification activity, whether internal or external, should seek to identify material discrepancies, such as oversight, omission, or miscalculation, which leads to error in the formulation of an emissions footprint estimate.
- A threshold of ±5% should be used to determine whether a discrepancy is considered "material" (as per The Climate Registry).
- Any material discrepancies that cannot be resolved prior to publishing an emissions report must be clearly stated in the report.
- Material discrepancies do not include the margin of error associated with secondary data sources.

#### **Reporting requirements**

- Reporting formats may vary based on the program for which data are reported.
- Reporting companies are encouraged to state any deviations from the standard methodology used to create the footprint.
- Reporting companies area also encouraged to clearly state all internal and external verification efforts, and include the statement and signature of the person(s) responsible for the verification process.





# **Decarbonization Roadmap considerations**

In addition to the points mentioned above on metrics, data collection, calculations and quantification of emissions here are essential considerations to make:

### **Introduction to targets**

#### The most commonly used targets are:

Absolute emissions reduction target, that include a reduction percentage vs the baseline (e.g., 40% reduction by 2030 compared to 2020). Relative emissions reduction target, that includes a relative measure of emissions 'intensity' vs the baseline (e.g., 10% reduction per dollar revenue, by 2030 compared to 2020).



Net zero targets or carbon positive targets are also used.

# Carbon reduction targets can be in line with the Science Based Targets initiative, although this is not obligatory.



The Science Based Targets initiative (SBTi) drives ambitious climate action in the private sector by enabling companies to set emissions reduction targets that are aligned with what the best available science say is required to stay within a 1.5°C climate change scenario.

### What to consider while setting targets

#### SET A BASE YEAR

#### SET A FUTURE YEAR TARGET

Determine a future year when you want to have reached certain carbon reduction targets. (These are typically over 5-10 years). The emissions from this base year are your starting point for reducing your company's GHG emissions.

#### SET QUALITY STANDARD FOR MEASURING GHG EMISSIONS

It is recommended to set up agreements on data quality standards of the entity to whom you will be reporting your targets and progress.

#### SET A TARGET IN GHG EMISSIONS REDUCTION FOR THE DEFINED TIMESPAN

This can be an absolute and / or an intensitybased reduction percentage, or a net zero target.

One approach to establishing a reduction target is to estimate the independent effect of several, different decarbonization tactics that you may want to apply on your overall rate of emission reductions.

#### The exercise can help you assess:

- The magnitude of investment needed to achieve your overall reduction goal.
- The practicality of achieving a specific target.

#### **IDEAL V/S REALISTIC**

Committing to a target should be challenging, yet not overly burdensome.

It is recommended to set targets that are ambitious but manageable, given your business model, growth expectations, and corporate culture.

In addition to a total reduction target, it is suggested to establish year-over-year reduction goal.

For more information on setting targets and the corresponding SBT-tool, check the SBTi-website. You can also check how realistic your reduction targets are by calculating the effect of several decarbonization options you want to apply and see how far this brings you. These do not have to add up to 100% of the emission reduction you want to achieve, since new innovations and developments arrive all the time and you cannot know all decarbonization options beforehand.

## **Operational steps to get to the realistic target**

There are five methods to decarbonize your operations, which are not mutually exclusive.



## **METHOD 1: Reduction**

Decreasing emissions by increasing energy efficiency.



## **METHOD 2: Elimination**

Avoiding emissions by changing processes or technology or switching power of fuel source.



### **METHOD 3: Capture**

Removing and sequestering emissions by industrial or natural techniques.



# **METHOD 4: Compensation**

Balancing emission through carbon offsets, insetting, and credits.

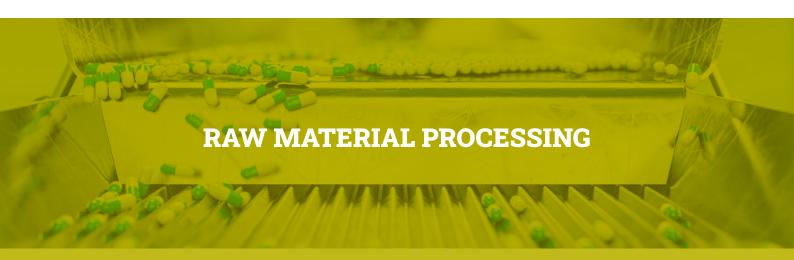


## METHOD 5: Quantification of impact of any business changes

(E.g., acquisitions or divestitures).

# Low hanging fruits

### Simple small investment ideas to help get you started



# Energy efficiency leads to lower energy use (less fuel or electricity), fewer carbon emissions and decreases spend.

Examples include:

- Insulating pipes.
- Improving the operations of steam boiler using heat recovery from the boiler exhaust.
- Switching to LED lighting.
- Conducting regular checks for gas or steam leakage.

#### Minimize waste and increase circularity

Increase efficiency in raw material processing and check if your waste product can be turned into something more valuable (either internally or through a third party).

#### Switching to renewable energy

- Renewable energy sources (e.g., wind, solar and geothermal, etc.) lead to zero or very few emissions.
- You can switch to renewables either by purchasing energy from a provider that only provides energy from renewable sources or by installing on-si8te renewable generation (e.g., solar panels, wind turbines).
- Switch to clean(er) fuels (each different fuel source has a unique emission factor. Switching fuel type can therefore be an effective way to reduce your carbon footprint. E.g., switching from coal to diesel, diesel to gasoline, or coal to natural gas).

# **PACKAGING AND MATERIAL PRODUCTION**

#### Minimize waste

Minimizing waste reduces material demand and consumption, which costs and material production, thereby reducing carbon emissions.

#### **Design for recyclability**

Evaluate packaging materials for recyclability and design packaging solutions to optimize recyclability (e.g., use mono-materials).

#### Use packaging with recycled content

- Using recycled instead of virgin materials can lead to a significant carbon emissions reduction.
- There is potential in recycling materials such as PET, glass, aluminum and steel.

#### **Applying lightweighting**

- With lightweighting you package products in the same way, but use less material.
- Lightweighting can reduce resource consumption and reduce carbon emissions generated in transportation.

#### Switch to more eco-friendly materials

Some materials are more carbon intensive to produce than others. Switching to a material with a lower environmental impact can lead to significant carbon reductions (e.g., bio-based materials).

# **TRANSPORTATION / DISTRIBUTION**

#### **Increase the fuel efficiency**

You can increase the fuel efficiency (reducing the fuel use) of your fleet in several ways, including:

- Route optimization: avoid driving useless kilometers.
- Avoid transporting unnecessary weight.
- Maintenance programs, including checks for optimal tire pressure.
- Trainings on driving behavior (i.e., driving at a constant speed).
- Use vehicles that require less fuel than your current fleet.
- Use more modern vehicles.
- Avoid running your vehicles while stationary (idling).

#### Switch to clean(er) fuels

- Different fuel types have different emission factors.
- Switch to lower carbon fuels, such as by replacing diesel with natural gas or biofuel.
- An even more eco-friendly alternative is to make use of hybrid or all-electric vehicles, powered with renewable energy.



#### **Increase energy efficiency**

Increasing energy efficiency lowers energy use (less fuel or electricity), reduced cost, and fewer carbon emissions.

Example of energy efficiency or energy saving measures is switching to LED lighting (lighting generally accounts for between 15-25% of retail energy consumption).

#### **Regulatory requirements on energy efficiency and decarbonization**

- In many countries production facilities are required to start energy saving or decarbonization projects.
- Investigate local regulatory requirements with respect to energy efficiency and decarbonization.
- In many cases, subsidies or other financial benefits are made available.
- Many municipalities have performance programs to incentivize energy reductions, offering no or low cost energy audits. Energy providers can also offer support.





The Global Self-Care Federation exists to create a healthier world through better self-care. We represent associations and manufacturers in the self-care industry, working closely with our members and relevant stakeholder groups to ensure evidence-based self-care products and solutions are recognized as key contributors to health for individuals and systems worldwide. Our work ensures key policy and decisionmakers embrace self-care, recognize its values and use its broad range of benefits as the building blocks to deliver better and more sustainable health outcomes for all.

We represent the self-care and self-medication industry and endeavor to contribute to the World Health Organization's public health goals through our specialized expertise. GSCF is a non-State actor in official relations with WHO.