

Definitions of Scopes and Categories

Scopes 1, 2 and 3: Greenhouse Gas Protocol Definitions



Scopes 1, 2 and 3 are mutually exclusive.

Within one company, there is no double counting of emissions between the scopes. A company's scope 3 inventory does not include any emissions already in its scope 1 and 2 sources.

However, one company's scope 3 emissions include other companies' scope 1, 2 and 3 emissions.



Scope 1

Scope 1 - Direct emissions

Emissions from operations that are owned or controlled by the reporting company

Examples:

- Emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.
- Direct process emissions from chemical reactions in owned or controlled operations



Scope 2

Scope 2 - Indirect energy emissions

Emissions from generation of purchased or acquired electricity, steam, heating or cooling consumed by the reporting company

Example:

- Use of purchased electricity, steam, heating or cooling



Scope 3

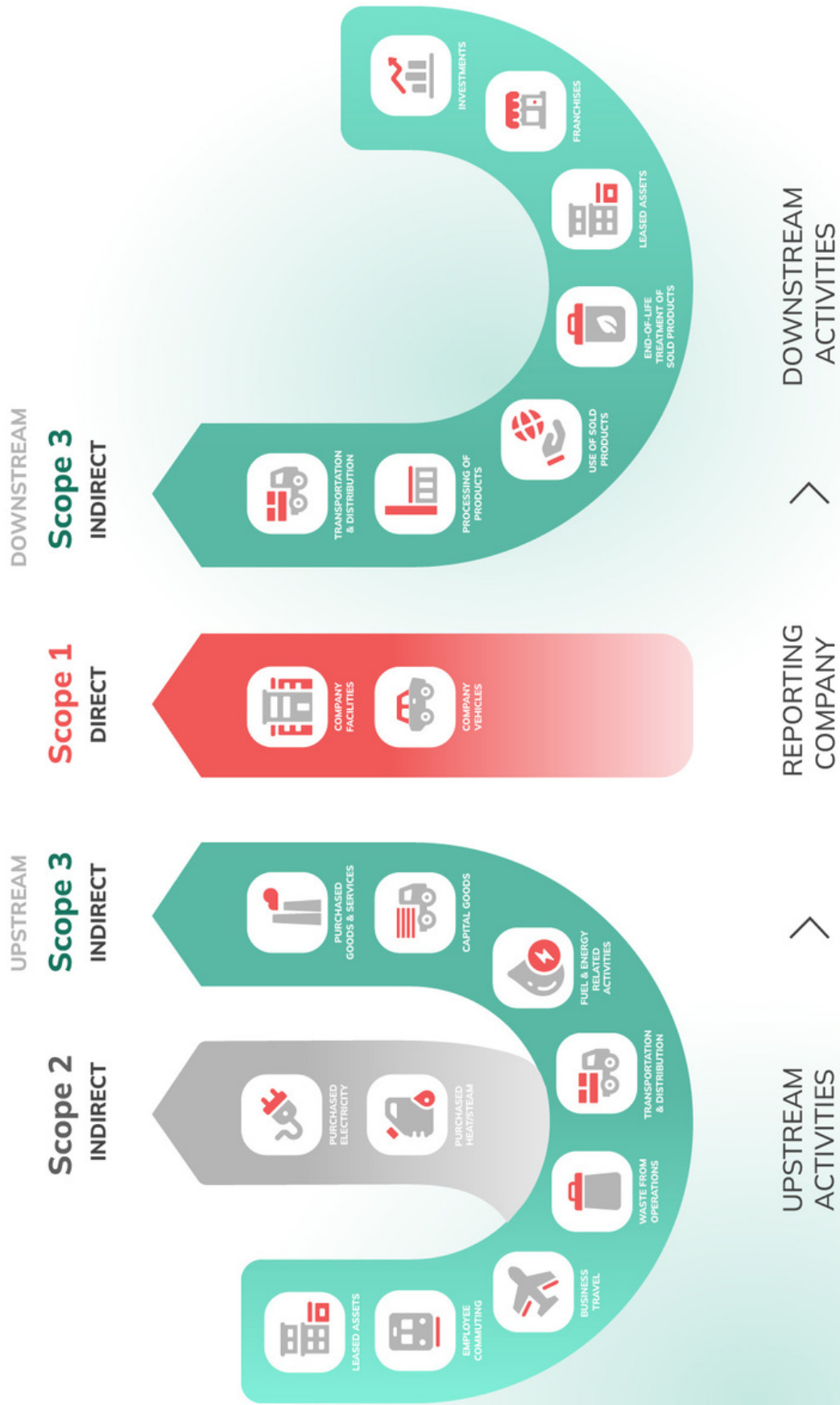
Scope 3 - Other indirect emissions

All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions

Examples:

- Production of purchased products,
- Transportation of purchased products
- Use of sold products

Overview: Scopes and their Categories



Definitions of Scope 3 Categories (according to the Greenhouse Gas Protocol)



Scope 3 emissions are divided into:

Upstream emissions → indirect emissions related to purchased or acquired goods and services

Downstream emissions → indirect emissions related to sold goods and services

There are 15 categories of scope 3 emissions, providing companies with a systematic framework to organize, understand and report on their scope 3 activities.

Upstream Scope 3 categories

| Category | Category description | Example sources for commodity traders |
|--|---|---|
| 1. Purchased goods and services | Extraction, production, and transportation of goods and services purchased or acquired by the reporting company in the reporting year, not otherwise included in Categories 2-8 | e.g. embodied carbon of traded products (including emissions from mining, refining, smelting, etc.) |
| 2. Capital goods | Extraction, production, and transportation of capital goods purchased or acquired by the reporting company in the reporting year | e.g. plant and equipment; transport vehicles; facilities, buildings, warehouses; IT hardware |

Upstream Scope 3 categories (continued)

| Category | Category description | Example sources for commodity traders |
|---|--|---|
| 3. Upstream fuel- and energy-related emissions | <p>Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, including:</p> <ul style="list-style-type: none"> (a) Upstream emissions of purchased fuels (b) Upstream emissions of purchased electricity (c) Transmission and distribution (T&D) losses | e.g. transmission and distribution of electricity within local grid; extraction. |
| 4. Upstream transportation and distribution | Transportation and distribution services purchased by the reporting company including inbound or outbound logistics, as well as transportation and distribution of products purchased between the company's tier 1 suppliers and its own operations | e.g. wellfield to refinery transport via pipeline, truck, tanker or rail for oil products; chartered vessel transport from supplier to customer |
| 5. Waste | Disposal and treatment of waste generated in the reporting company's operations in the reporting year (in facilities not owned or controlled by the reporting company) | e.g. office waste to landfill; office waste recycled; manufacturing waste to landfill |
| 6. Business travel | Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company) | e.g. flight travel; hotel stays; taxi trips; train travel |

Upstream Scope 3 categories (continued)

| Category | Category description | Example sources for commodity traders |
|----------------------------------|--|--|
| 7. Employee commuting | Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company) | e.g. public transportation; car travel, train travel |
| 8. Upstream leased assets | Operation of assets leased by the reporting company (lessee) in the reporting year and not included in scope 1 and scope 2 – reported by lessee | e.g. basebuilding energy from leased office space |

Downstream Scope 3 categories

| Category | Category description | Example sources for commodity traders |
|--|--|--|
| 9. Downstream transportation and distribution | Transportation and distribution of products sold by the reporting company in the reporting year between the reporting company's operations and the end consumer (if not paid for by the reporting company) | e.g. distribution of refined fuels to service stations; downstream transport of traded product from processing to end user |
| 10. Processing of sold products | Processing of intermediate products sold in the reporting year by downstream companies (e.g., manufacturers) | e.g. bitumen processing into asphalt; crude oil refining into petrol, diesel, etc.; base oil blending into lubes; natural gas regasification |
| 11. Use of sold products | End use of goods and services sold by the reporting company in the reporting year | e.g. combustion of oil products |

Downstream Scope 3 categories (continued)

| Category | Category description | Example sources for commodity traders |
|---|--|---|
| 12. End of life of sold products | Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life | e.g. road to landfill for bitumen |
| 13. Downstream leased assets | Operation of assets owned by the reporting company (lessor) and leased to other entities in the reporting year, not included in scope 1 and scope 2 – reported by lessor | e.g. fuel consumption during time charters of company-owned vessels |
| 14. Franchises | Operation of franchises in the reporting year, not included in scope 1 and scope 2 – reported by franchisor | e.g. scope 1 and 2 emissions from service stations that are under franchise agreements with reporting company |
| 15. Investments | Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2 | e.g. scope 1 and 2 emissions from companies in which equity invested exceeds threshold from reporting company |

Scope 3 accounting with CarbonChain

Measure, report and reduce your scope 3 emissions with accuracy. CarbonChain's cloud-based platform quantifies and categorizes your scope 3 emissions, with granular calculations across the value chain, aligned with the Greenhouse Gas Protocol.