**GHG**

**Accounting**

**Report**

**{% if start\_date.strftime('%Y') == end\_date.strftime('%Y') %}**

**Year: {{ start\_date.strftime('%Y') }}**

**{% else %}**

**Year: {{ start\_date.strftime('%Y') }}-{{ end\_date.strftime('%Y') }}**

**{% endif %}**

**{% if org\_logo %}**

**{{org\_logo}}**

**{% endif %}**

**{{** **organization\_name }}**

**Provided By: Sustainext**

[EXECUTIVE SUMMARY 2](#_Toc167115642)

[INTRODUCTION 2](#_Toc167115643)

[About The Report 2](#_Toc167115644)

[Reporting Period 3](#_Toc167115645)

[About The Organization 3](#_Toc167115646)

[CARBON ACCOUNTING OBJECTIVES 3](#_Toc167115647)

[Roles and Responsibilities 3](#_Toc167115648)

[Methodology Used 3](#_Toc167115649)

[Principles of Carbon Accounting 4](#_Toc167115650)

[BOUNDARIES 4](#_Toc167115651)

[Organizational boundaries 4](#_Toc167115652)

[Operational boundaries 4](#_Toc167115653)

[DATA COLLECTION AND QUANTIFICATION METHODOLOGY 5](#_Toc167115654)

[Data Collection and Monitoring Methodology 5](#_Toc167115655)

[Quantification Methodology 5](#_Toc167115656)

[GHG Emission Activity Data Sources 5](#_Toc167115657)

[Excluded Sources 6](#_Toc167115658)

[Emission Factors Considered 6](#_Toc167115659)

[Quantification of Direct & Indirect Emissions 7](#_Toc167115660)

[Direct GHG Emission: Scope 1 7](#_Toc167115661)

[Indirect GHG Emission: Scope 2 7](#_Toc167115662)

[Other indirect GHG Emission: Scope 3 8](#_Toc167115663)

[Reducing uncertainties 9](#_Toc167115664)

[RESULTS 9](#_Toc167115665)

# EXECUTIVE SUMMARY

This report details the Greenhouse Gas Emissions (GHG) accounting for the {% if report\_by == “Organization” %}organization{% else %}corporate{% endif %} {{organization\_name}}. The total GHG emissions for the reporting period {{ start\_date.strftime("%d-%b-%Y") }} to {{ end\_date.strftime("%d-%b-%Y") }} were found to be {{total\_co2e\_combined}} tCO2e. The largest source of emissions was {{ highest\_source\_name }}.

{% if report\_by == “Organization” %}

**­Table 1: {{organization\_name }} GHG emissions by emission scope**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scope** | | **TOTAL EMISSIONS (tCO2e)** | **% of Total** |
| **{%tr for scope in combined\_scopes %}** | | |
| **{{scope.scope\_name | capitalize}}** | **{{** **'%0.2f' % scope.total\_co2e|float }}** | **{{ '%0.2f' % scope.combined\_percentage | float }}%** |
| **{%tr endfor %}** | | |

**{% endif %} {% for company\_data in data %}** {% if report\_by == “Organization” %}

**Table 1.{{loop.index}}: GHG emissions by emission Scope ({{company\_data.corporate\_name}}) {% else %} Table 1: GHG emissions by emission Scope ({{company\_data.corporate\_name}}) {% endif %}**

|  |  |  |  |
| --- | --- | --- | --- |
| **Scope** | | **TOTAL EMISSIONS (tCO2e)** | **% of Total** |
| **{%tr for scope in company\_data.scopes %}** | | |
| **{{scope.scope\_name | capitalize}}** | **{{ '%0.2f' % scope.total\_co2e | float }}** | **{{'%0.2f' % scope.contribution\_scope | float }}%** |
| **{%tr endfor %}** | | |

**{% endfor %}**

# INTRODUCTION

## About The Report

{{organization\_name}}’s GHG emissions inventory for the period {{ start\_date.strftime("%d-%b-%Y") }} to {{ end\_date.strftime("%d-%b-%Y") }} are presented in this Carbon Accounting Report. It covers {{organization\_name}} operations across {{country}} and is presented in accordance with ISO 14064 and GHG Protocol. The report facilitates improvement of {{organization\_name}}’s sustainability performance by demonstrating an accurate assessment of the organization’s GHG emissions arising from its activities and facilities. Through this evaluation, key GHG emissions sources are identified which will assist {{organization\_name}} in designing appropriate emission reduction and mitigation strategies. Evaluating principal sources of GHG emissions will enable the identification of areas for improvement and further emission reduction.

## Reporting Period

The GHG emissions inventory presented in this report covers {{organization\_name}} GHG emissions for reporting period, starting from {{ start\_date.strftime(“%b-%Y”) }} to {{ end\_date.strftime(“%b-%Y”) }}. The base year for {{organization\_name}}’s GHG emissions inventory is

{%- if calender\_year -%}

{{calender\_year.strftime(“%Y”) or “No data Added.”}}

{%- elif from\_year and to\_year -%}

{{from\_year.strftime(“%Y”)}} to {{ to\_year.strftime(“%Y”)}}

{%- else -%}

{{“No data Added.”}}{% endif %}

## About The Organization

{% if bool\_about\_the\_organization %}

{{p about\_the\_organization or ‘No Data Added.’ }}

{% else %}

{{ ‘No Data Added.’ }} {% endif %}

# CARBON ACCOUNTING OBJECTIVES

The carbon accounting report aims to:

* Quantify {{organization\_name}}’s GHG emissions during the period {{start\_date.strftime("%d-%b-%Y") }} to {{end\_date.strftime("%d-%b-%Y") }}.
* Identify gaps and to identify emission reduction opportunities.
* Communicate results to the third-party agency for verification.
* Support development of sustainability strategies.
* Increase opportunities to register in voluntary GHG programs.

## Roles and Responsibilities

{% if bool\_roles\_and\_responsibilities %}

{{p roles\_and\_responsibilities or ‘No Data Added.’}}

{% else %}

{{“No Data Added.“}}

{% endif %}

The quantification of {{organization\_name}}’s carbon emissions was led by the {{ designation\_of\_organizational\_admin or “No Data Added”}}. Data has been collected using the Sustainext.ai platform.

## Methodology Used

This report follows the GHG protocol corporate standard and specifications for quantification of GHG Emissions. The methodology can be summarized as follows:

Diagram

Description automatically generated

## Principles of Carbon Accounting

GHG accounting and reporting practices are constantly evolving alongside advancements in the science of climate change. The GHG Protocol and ISO 14064 standards advise that GHG emissions inventories be carried out in accordance with the following principles:

***RELEVANCE:*** For an organization’s GHG emissions inventory to contain information that users might need for making “informed” decisions. Accordingly, the organization has identified the appropriate boundaries that reflect its business operations.

***COMPLETENESS:*** All relevant emission sources within the chosen inventory boundary have been accounted for in the GHG inventory so that a comprehensive and meaningful inventory of total emissions is compiled.

***CONSISTENCY:*** The GHG inventory has been compiled in a manner that ensures that the overall emissions estimates are consistent and comparable over time.

**TRANSPARENCY:** All necessary information has been recorded, compiled, and analyzed in a manner that enables internal reviewers and external verifiers to attest to its credibility.

***ACCURACY:*** Data reported is sufficiently precise to enable us to make decisions with reasonable assurance and the reported information is credible. Uncertainties in measurements, recording, and calculations have been reduced as far as possible and practicable.

# BOUNDARIES

## Organizational boundaries

According to the GHG Protocol – Corporate Standard, the reporting company must set the scope and boundary for calculation of emissions by deciding the approach to consolidate GHG emissions. {{organization\_name}} adopts the {{organizational\_boundries or ‘No Data Added.’}} approach to consolidate and report on its emissions.

## Operational boundaries

The following table lists the sites operated by **{{organization\_name}}** and their corresponding addresses:

**Table 2: Geographical Locations of Offices / Factories**

|  |  |  |
| --- | --- | --- |
| **Name** | **Type of Location** | **Address** |
| **{%tr for report in data %}** | | |
| **{%tr for location in report.locations %}** | | |
| **{{ location.location\_name }}** | **{{ location.location\_type }}** | **{{ location.location\_address }}** |
| **{%tr endfor %}** | | |
| **{%tr endfor %}** | | |

# DATA COLLECTION AND QUANTIFICATION METHODOLOGY

## Data Collection and Monitoring Methodology

All emission activity data is collected from multiple data owners using the Sustainext platform. Data is centralized on the platform and is reviewed for completeness, accuracy, duplication and human errors.

## Quantification Methodology

The process of identifying GHG emission sources is the first step involved in the quantification of GHG emissions. The GHG sources are then classified following the GHG Protocol – Corporate Standard. This is followed by gathering accurate activity data. Selection of nationally or internationally accepted emission factors is a crucial step and these are available through DEFRA, IPCC and National GHG Inventories for the calculation of GHG emissions.

**{{organization\_name}}{% if start\_date.strftime(“%Y”) != end\_date.strftime(“%Y”) %} {{start\_date.strftime(“%Y”)}}-{{end\_date.strftime(“%Y”)}} {% else %} {{start\_date.strftime(“%Y”)}}{% endif %}**GHG inventory is based on the activity data and the use of appropriate emission factors to arrive at a total emission value or carbon footprint.

## GHG Emission Activity Data Sources

The following table shows the sources of emissions for which activity data has been collected along with the sources of data:

{% if data\_source is not none %}

**Table 3: Emission Sources**

|  |  |
| --- | --- |
| **Emission Source** | **Data Source** |
| **{%tr for key,value in data\_source.items() %}** | |
| **{{key}}** | **{{value}}** |
| **{%tr endfor %}** | |

{% endif %}

## Excluded Sources

The following sources of emissions have been excluded from the calculation of **{{organization\_name}}** total emissions:{% if bool\_excluded\_sources %}

{{p excluded\_sources or ‘No Data Added.’ }}

{% else %}

{{ “No Data Added.” }} {% endif %}

## Emission Factors Considered

**Table 4: Emission Factors**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emission Factor** | **Unit** | **Source** | **Year** |
| {%tr for report in data %} | | | |
| {%tr for source in report.sources %} | | | |
| {%tr if source.activity\_name is not none %} | | | |
| **{{source.category\_name}}-{{source.activity\_name.split(“-“)[0]}}** | **{{source.co2e\_unit }} CO2 /** **{{source.activity\_data.activity\_unit}}** | **{{source.source}}** | **{{source.year}}** |
| {%tr endif %} | | | |
| {%tr endfor %} | | | |
| {%tr endfor %} | | | |

## Quantification of Direct & Indirect Emissions

The following are the direct and indirect emissions from **{{organization\_name}}** operations during FY {% if start\_date**.strftime(“%Y”)** == end\_date**.strftime(“%Y”)** %}**{{start\_date.strftime(“%Y”) }}{% else %}{{ start\_date**.**strftime(“%Y”) }} – {{ end\_date.strftime(“%Y”) }}{% endif %}**

### Direct GHG Emission: Scope 1

**Table 5: Scope 1**

|  |  |  |
| --- | --- | --- |
| **Scope 1 Activities** | **Consumption {% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %}{{start\_date.strftime(“%Y”) }}{% else %}{{ start\_date.strftime(“%Y”) }} – {{ end\_date.strftime(“%Y”) }}{% endif %} (tCO2e)** | **Greenhouse Gas Emissions {% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %}{{start\_date.strftime(“%Y”)}}{% else %}{{start\_date.strftime(“%Y”)}} to {{end\_date.strftime(“%Y”)}}{% endif %} (tCO2e)** |
| **{%tr for report in data %}** | | |
| **{%tr for source in report.sources %}** | | |
| **{%tr if source.scope\_name == "Scope-1" %}** | | |
| **{{source.source\_name}}-{{source.category\_name}}** | **{{source.activity\_data.activity\_value}} {{source.activity\_data.activity\_unit}}** | **{{ '%0.2f' % source.total\_co2e | float }}** |
| **{%tr endif %}** | | |
| **{%tr endfor %}** | | |
| **{%tr endfor %}** | | |

The total Scope 1 emissions from {{organization\_name}} were {% for scope in combined\_scopes %}{% if scope.scope\_name == "Scope-1" %}{{**'%0.2f' %** scope.total\_co2e | float}}{% endif %}{% endfor %} tCO2e for FY **{% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %}{{start\_date.strftime(“%Y”)}}{% else %}{{start\_date.strftime(“%Y”)}}-{{end\_date.strftime(“%Y”)}} {%endif%}**

### Indirect GHG Emission: Scope 2

The grid electricity purchased to run operations for the **{{organization\_name}}** offices/factories along with the purchased backup electricity and purchased cooling/HVAC are considered indirect emissions (Scope 2)

**Table 6: Scope 2**

|  |  |  |
| --- | --- | --- |
| **Scope 2 Activities** | **Consumption FY {{year}}** | **Greenhouse Gas Emissions FY {% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %} {{start\_date.strftime(“%Y”)}}{% else %} {{start\_date.strftime(“%Y”)}}-{{end\_date.strftime(“%Y”)}} {%endif%} (tCO2e)** |
| **{%tr for report in data %}** | | |
| **{%tr for source in report.sources %}** | | |
| **{%tr if source.scope\_name == "Scope-2" %}** | | |
| **{{source.source\_name}}-{{source.category\_name}}** | **{{source.activity\_data.activity\_value}} {{source.activity\_data.activity\_unit}}** | **{{'%0.2f' % source.total\_co2e | float }}** |
| **{%tr endif %}** | | |
| **{%tr endfor %}** | | |
| **{%tr endfor %}** | | |

The total Scope 2 emissions from **{{organization\_name}}** were {% for scope in combined\_scopes %}{% if scope.scope\_name == "Scope-2" %}{{**'%0.2f' %** scope.total\_co2e | float or “0.00”}}{% endif %}{% endfor %} tCO2e for FY **{% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %}{{start\_date.strftime(“%Y”)}}{% else %}{{start\_date.strftime(“%Y”)}}-{{end\_date.strftime(“%Y”)}}{%endif%}.**

### Other indirect GHG Emission: Scope 3

Employee commute, business travel, public transport travel, waste consumption and T&D losses from grid electricity are categorized under other indirect emissions (Scope 3).

**Table 7: Scope 3**

|  |  |  |
| --- | --- | --- |
| **Scope 3 Activities** | **Consumption FY {{year}}** | **Greenhouse Gas Emissions FY {% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %} {{start\_date.strftime(“%Y”)}} {% else %}{{start\_date.strftime(“%Y”) }} to {{end\_date.strftime(“%Y”) }}{%endif%} (tCO2e)** |
| **{%tr for report in data %}** | | |
| **{%tr for source in report.sources %}** | | |
| **{%tr if source.scope\_name == "Scope-3" %}** | | |
| **{{ source.source\_name }}-{{ source.category\_name }}** | **{{ source.activity\_data.activity\_value }} {{ source.activity\_data.activity\_unit }}** | **{{ '%0.2f' % source.total\_co2e | float }}** |
| **{%tr endif %}** | | |
| **{%tr endfor %}** | | |
| **{%tr endfor %}** | | |

The total Scope 3 emissions from **{{organization\_name}}** were {% for scope in combined\_scopes %}{% if scope.scope\_name == "Scope-3" %}{{**'%0.2f' %** scope.total\_co2e| float or “0.00”}}{% endif %}{% endfor %} tCO2e for FY **{% if start\_date.strftime(“%Y”) == end\_date.strftime(“%Y”) %}{{start\_date.strftime(“%Y”)}}{% else %}{{start\_date.strftime(“%Y”)}}-{{end\_date.strftime(“%Y”)}}{%endif%}**

## Reducing uncertainties

It is assumed that there is +/- 5% to 10 % uncertainty associated with the calculation of total emission of **{{organization\_name}}** each year. It is based on the following:

• Based on the accuracy of the activity data collected, the uncertainty associated can be approximately 5%.

• Uncertainty associated with estimating emission factors.

• Concerning Activity Data (AD), calculation methodology with less uncertainty has been prioritized.

# RESULTS

**{{organization\_name}}** total emissions for the period **{{start\_date.strftime(“%d-%b-%Y”)}} to {{end\_date.strftime(“%d-%b-%Y”)}}** were {{ total\_co2e\_combined }} tCO2e.

**Table 8: Summary of GHG emissions**

|  |  |  |
| --- | --- | --- |
| **Scope** | **Emissions (tCO2e)** | **% of Total** |
| **{%tr for scope in combined\_scopes %}** | | |
| **{{ scope.scope\_name | capitalize }}** | **{{ '%0.2f' % scope.total\_co2e | float }}** | **{{ scope.combined\_percentage | round(2) }}%** |
| **{%tr endfor %}** | | |