



# GHG

**Inventory Report 2024/25**

**TALAWAKELLE TEA ESTATES PLC**

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## About this Report

This Report is the Talawakelle Tea Estates PLC (together, with its 16 estates, “Talawakelle Tea Estates PLC or the “Company”) 2024/2025 Greenhouse Gas (“GHG”) Emissions Report (“GHG Emissions Report” or this “Report”). All information in this report is provided for the year-ended 01.04.2024 to 31.03.2025, unless otherwise noted.

## GHG Protocol

The GHG Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) (“GHG Protocol”) was established through a partnership of non-governmental organizations, governments, and other stakeholders that was convened by the World Resources Institute and the World Business Council for Sustainable Development. The GHG Protocol provides a consistent standard and guidance for the measurement and reporting of GHG emissions by companies. Talawakelle Tea Estates PLC has adopted this standard for measuring and reporting on the GHG emissions that arise from Talawakelle Tea Estates PLC corporate operations.

## Management’s Assertion

Management of Talawakelle Tea Estates PLC is responsible for the completeness, accuracy, and validity of the disclosures included in this Report for the year-ended March 31, 2025. Management is also responsible for the collection, quantification, and presentation of the information included in this Report and for the selection of the criteria, which management believe provides an objective basis for measurement and reporting. Management of Talawakelle Tea Estates PLC asserts that the GHG Emissions Report for the year 2024/2025 is presented in accordance with the GHG Protocol & ISO 14064-1; 2018.

## Reasonable Level of Assurance

Talawakelle Tea Estates PLC engaged Sri Lanka Climate Fund to perform a review engagement on management’s assertion that the GHG Emissions Report for the year-ended March 31, 2025 is presented in accordance with the GHG Protocol. ’s report can be found at the end of this Report.

## Important Notes & Limitations

This Report includes non-financial metrics that are subject to measurement uncertainties resulting from limitations inherent in the nature and the methodologies used for determining such data. The selection of different but acceptable measurement techniques, including estimation, can result in materially different measurements. The precision of different measurement and estimation techniques may also vary. This Report

was published in July, 2025. Talawakelle Tea Estates PLC reserves the right to update its measurement and estimation techniques and methodologies in the future.

## Executive Summary

Talawakelle Tea Estates PLC is a leading Tea producer in Sri Lanka has undertaken its first comprehensive greenhouse gas (GHG) emissions inventory for the fiscal year 2024/25, aligning with ISO 14064 standards. This initiative reflects the plantation’s commitment to sustainability and environmental accountability. The total GHG emissions for the reporting year amounted to 23,431.21 tCO<sub>2</sub>e, consisting of 8,160.01 tCO<sub>2</sub>e from direct emissions (Scope 1), 1,703.00 tCO<sub>2</sub>e from indirect emissions related to electricity consumption (Scope 2), and 13,568.20 tCO<sub>2</sub>e from other indirect sources (Scope 3), including transportation, waste, and supply chain activities. Additionally, biogenic emissions from the combustion of firewood and briquettes were recorded at 20,735.32 tCO<sub>2</sub>e and reported separately. The main sources of emissions were stationary combustion for heat and energy, mobile combustion from vehicles, and downstream logistics. To support emission reduction, the plantation has invested in renewable energy, achieving GHG savings of 5,452.72 tCO<sub>2</sub>e through hydroelectricity and 405.97 tCO<sub>2</sub>e from solar power, totaling 5,858.69 tCO<sub>2</sub>e in avoided emissions. The emission intensity for the year was calculated at 4.25 kg CO<sub>2</sub>e per kilogram of tea produced. Robust monitoring mechanisms, including monthly data tracking and annual verification, support the accuracy and reliability of the reported data. This baseline assessment establishes a strong foundation for ongoing climate action, with future inventories planned to measure progress and inform strategic environmental initiatives. The Greenhouse Gas (GHG) accounting exercise conducted in conformity with ISO 14064-1:2018 international standard covering the activities of Talawakelle Tea Estates PLC has yielded the GHG emission arising out of its value addition activities. For the period 1st April 2024 to 31st March 2025, the organization has emitted 23,431.21 tons of CO<sub>2</sub>e equivalents of GHG. During the same period, plantation and manufacturing of 1 kilogram of made tea has generated 39 of kgCO<sub>2</sub>e equivalents of GHG. This assessment quantifies and reports the greenhouse gas (GHG) emissions based on data recorded of Talawakelle Tea Estates PLC each estates and head office, at an organizational level, in accordance with ISO 14064-1:2018 and GHG Protocol developed by World Resource Institute and World Business Council for Sustainable Development. All GHG emissions are reported as tons of Carbon Dioxide equivalent (tCO<sub>2</sub>e) if mentioned otherwise. The base year selected as FY 2022/23 and the report was done for FY 2024/25.

## Overview of the Company

Talawakelle Tea Estates PLC was established in 1992 by following a privatization program initiated by the government of Sri Lanka. Nevertheless, the history of the 16 tea estates on the portfolio dates back to the late 19th century. Talawakelle Tea Estates PLC is a one of leading Regional Plantation Companies in Sri Lanka, renowned for producing premium-quality Ceylon Tea. As a key member of the Hayleys Plantations Sector, Talawakelle Tea Estates PLC operates 16 estates spanning 6,491 hectares across the island's High-grown and Low-grown regions. Our unwavering commitment to excellence is exemplified through globally recognized Science-Based Targets and the distinction of being the first plantation company in the world and first organization to achieve verification. We are proud to hold multiple prestigious certifications, including Rainforest Alliance, HACCP, ISO 22000:2018, ISO 9001:2015, ISO 14001:2015, and ISO 50001:2018. These certifications underscore our dedication to sustainable, ethical, and high-quality practices. As the most awarded plantation company in Sri Lanka, Talawakelle Tea Estates PLC has received numerous prestigious accolades at both national and international levels. These include the Global Sustainability Award 2024, Best Corporate Citizen Sustainability Award 2023, National Business Excellence Award 2019, Global Performance Excellence Awards 2024, and National Quality Awards 2022, among others. In addition to producing premium-quality tea, Talawakelle Tea Estates PLC has established itself as a leader in renewable energy generation through hydropower and solar power. The company has successfully expanded its operations by diversifying into eco-tourism models, further broadening its business portfolio. Our commitment to excellence and transparency is reinforced through adherence to globally recognized corporate reporting frameworks, including IFRS, <IR>, GRI, TCFD, and TNFD standards.

*Our plantation has adopted drone technology for chemical spraying, boosting efficiency and safety. This advancement ensures uniform application, reduces waste, and enables operations in challenging conditions, signifying a move towards precision agriculture.*



*We pledge net-zero GHG emissions by FY2050, validated by SBTi targets. This includes reducing emissions 42% by FY2030 and 90% by FY2050 across all scopes, with a no-deforestation commitment by 2025.*



*TTE PLC and WNPS launched a 13 km forest corridor project, planting 50,000 native trees across 12 estates, promoting biodiversity, community engagement and sustainable ecosystem restoration in the central highlands.*



*The newly inaugurated Kiruwanaganga Tea Factory showcases our commitment to sustainability and innovation, featuring AI-powered colour separators, semi-automated processing and a green-certified building design.*



Summary of GHG Emissions for FY 2024/25

Talawakelle Tea Estates PLC total Greenhouse Gas (GHG) emissions for the 2024/2025 Year were approximately 23,431.21 tons of carbon dioxide equivalent (tCO<sub>2</sub>-e). Figure 1 below summarize the main sources of GHG emissions for the reporting period.

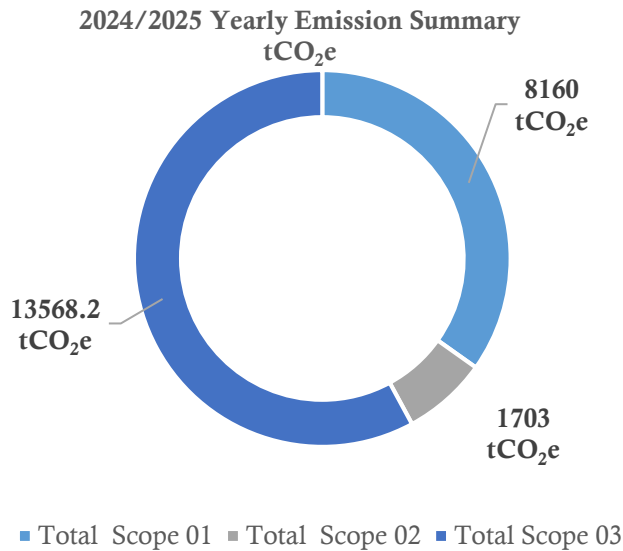


Figure 1: Summary of GHG emission 2024/2025

Amounting Total GHG emission of 23,431.21 tCO<sub>2</sub>e including Scope 01 (8,160 tCO<sub>2</sub>e) Scope 02 (1,703 tCO<sub>2</sub>e) & Scope 03 (13,568 tCO<sub>2</sub>e).

Aims and Objectives of the Greenhouse Gas (GHG) Assessment

The primary aim of this GHG assessment is to develop a transparent, comprehensive, and accurate inventory of greenhouse gas emissions associated with Talawakelle Tea Estates PLC’s operations for the financial year 2024/2025. This assessment supports the company’s commitment to environmental stewardship and aligns with internationally recognized standards such as the GHG Protocol Corporate Standard and ISO 14064-1; 2018.

Objectives

- Quantify Emissions: Measure direct (Scope 1) and indirect (Scope 2 and Scope 3) greenhouse gas emissions across all relevant operational boundaries.
- Establish Boundaries: Define clear organizational and operational boundaries to ensure completeness and consistency in emissions reporting.

- Support Decision Making: Provide reliable data to inform management decisions on emission reduction strategies and sustainability initiatives.
- Enhance Transparency: Ensure methodological transparency by documenting data sources, calculation methods, assumptions, and uncertainties.
- Enable Benchmarking: Facilitate comparison of emissions performance over time and against industry peers through normalized intensity metrics.
- Prepare for Verification: Produce a robust inventory suitable for third-party verification and external stakeholder disclosure.
- Identify Reduction Opportunities: Highlight key emission sources and potential areas for mitigation and efficiency improvements.

Approach to Measuring GHG Emissions

Frequency of Reporting

The report presents by Talawakelle Tea Estates PLC and it covers the period from April 1<sup>st</sup>, 2024 to March 31, 2025. GHG inventory and report is prepared yearly and send to verification body for the verification.

Frequency and Intended Dissemination of the Report

Moving forward, Talawakelle Tea Estates PLC intends to conduct GHG reporting on an annual basis. The findings of this report will be disseminated to internal stakeholders, including management and operational teams, to drive awareness and action on GHG management. Additionally, the report may be shared with external parties, such as business partners and regulatory bodies, as part of the organization’s commitment to transparency and sustainability.

Dissemination Policy

The dissemination policy outlines the procedures for the effective communication and sharing of greenhouse gas (GHG) data within Talawakelle Tea Estates PLC. This policy aligns with the company’s existing sustainability strategy and is consistent with the GHG Manual. The dissemination of GHG-related data, definitions, methods of data collection, processing, and the official results is the responsibility of authorized personnel within the company. The process ensures that all dissemination activities are handled internally, with no external influences affecting the integrity or accuracy of the

information. All relevant documentation and reports are to be made available only to authorized personnel, and confidentiality is maintained to protect the integrity of the data and company strategy.

### Base Year & Type of Verification and Level of Assurance

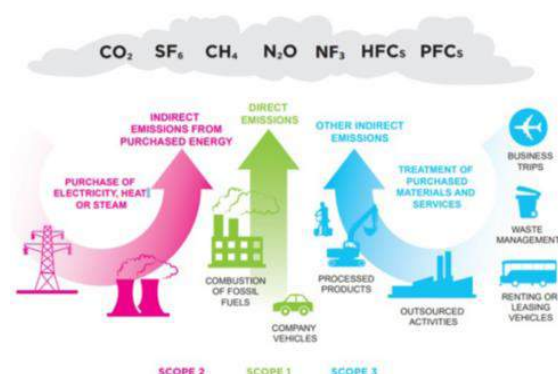
Talawakelle Tea Estates PLC has established an internal recalculation policy to determine when recalculations are appropriate based on significance thresholds, and in each instance of recalculation, will disclose the trigger events that drove the recalculation, the original emissions and the recalculated emissions. 2022/2023 is considered as the base year for the GHG Calculation which is set revised targets for Science based initiatives. GHG inventory and report prepared for 2024/2025 year will be verified by an independent third-party verification body with reasonable level of assurance.

### Organizational Boundaries

Talawakelle Tea Estates PLC has established its organizational boundaries for GHG inventory development using the operational control approach in accordance with ISO 14064:1: 2018. Under this approach, the company accounts for all emissions from operations where it has authority to introduce and implement operating policies. Organizational boundaries refer to the inventory that includes production related to Talawakelle Tea Estates company and 16 estates - Bearwell, Calsay, Clarendon, Dessford, Somerset, Radella, Great Western, Mattakelle, Holyrood, Wattagoda Tea Estates, Logie, Palmerston, Moragalla, Deniyaya, Kiruwanaganga and Indola. This includes emissions from both owned and controlled facilities and equipment.

### Reporting Boundary

The GHG inventory covers both direct emissions (Scope 1) and indirect emissions (Scope 2 and Scope 3), as detailed below. The boundaries include all significant sources of GHG emissions under the operational control of Talawakelle Tea Estates PLC, as well as key indirect emissions that are critical to the organization's value chain.



## Category 1: Direct GHG Emissions and Removals

### 1.1 Direct Emissions from Stationary Combustion

- Standby generator fuel consumption
- LPG consumption
- Biomass

### 1.2 Direct Emissions from Mobile Combustion

- Emissions from company-owned vehicles
- Emissions from off-road transport

### 1.4 Direct Emissions from Fugitive Sources

- Refrigeration and air conditioning
- Direct Emission from fertilizer
- Leakages from CO<sub>2</sub> fire extinguishers

## Category 2: Indirect GHG Emissions from Imported Energy

### 2.1 Indirect Emissions from Imported Electricity

- Electricity consumed in facilities

## Category 3: Indirect GHG Emissions from Transportation

### 3.1 Emissions from Upstream Transportation and Distribution

### 3.2 Emissions from Downstream Transportation and Distribution

### 3.3 Emissions from Employee Commuting

### 3.5 Emissions from Business Travel

- Air travel for official purposes

## Category 4: Indirect GHG Emissions from Products and Services Used by the Organization

### 4.1 Emissions from Purchased Goods and Services

- Procurement of packaging and operational materials

### 4.2 Emissions from Capital Goods

- Emissions embedded in machinery, buildings, and equipment

### 4.3 Emissions from Disposal of Solid and Liquid Waste

- Waste sent to landfill

- Wastewater treatment emissions

### 4.4 Fuel- and energy-related activities

## Category 5: Indirect GHG Emissions from the Use of Products from the Organization

### 5.2 Emissions from Downstream Leased Assets

- Emissions from storage or logistics facilities not owned by the company

### 5.3 Emissions from End-of-Life Stage of Sold Products

- Disposal and degradation of sold products

### 5.4 Emissions from Investments

- GHG emissions from financed activities or investments

### Category 6: Indirect GHG Emissions from Other Sources

- Fuel and energy-related activities (e.g., extraction, processing, and delivery)
- Transmission and distribution losses from purchased electricity

### Selection of Quantification Approach

The methodology for this GHG inventory is aligned with ISO 14064-1: 2018 standards and relevant guidelines, and obtained factors from UK Government GHG Conversion Factors for Company Reporting by (DEFRA), the Intergovernmental Panel on Climate Change (IPCC), Sri Lanka Sustainable Energy Authority (SLSEA), National Water Supply & Drainage Board (NWSDB) and Ceylon Electricity Board (CEB) and GZA Scope 03 Calculator. The activity data used for calculating emissions from various sources, such as fuel consumption for standby generators, company owned vehicles, off-road transport, and waste transportation, is derived from the Central Finance Database, electricity bills, and Sustainability data base & service provider records. Emission factors are applied to these data points, with reference to the appropriate emission factors for each fuel type and source, ensuring consistency and accuracy in emissions quantification. For indirect emissions, Scope 2 and Scope 3 emissions are calculated based on grid electricity consumption, raw material and finished goods transportation, and employee commuting, using emission factors from local energy authorities and international databases. The GWP values for CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions are taken from the latest IPCC AR6 report to ensure alignment with global standards.

The total set of Greenhouse Gases (GHGs) emissions caused directly and indirectly by an individual, organization, event or product is considered as Carbon Footprint. The term carbon footprint is commonly used to describe the total amount of carbon Dioxide (CO<sub>2</sub>) including other GHGs emissions for which an individual or organization is responsible. The amount of GHGs collectively is to use the term carbon Dioxide Equivalent or CO<sub>2</sub> Eq. A quantity of GHG is expressed as CO<sub>2</sub>e by multiplying the amount of the GHG by its Global Warming Potential (GWP). Talawakelle Tea Estates PLC estimated their 'Carbon Footprint' which is a measurement of total GHG emissions from their

operations or and activities, using the generic equation given below.

$$tCO_2e = \text{Activity data} \times \text{Emission Factor} \times \text{GWP}$$

tCO<sub>2</sub>e = Tonnes of CO<sub>2</sub>e

Activity Data = Estimated measure of activity related a specific emissions source

Emission Factor = Factor applied to make varied activities comparable

GWP = Multiplier that makes different GHGs comparable

### GHG Emissions Quantification

All GHG emissions, quantified separately for each GHG, in tons of CO<sub>2</sub>e because it is neither practical, nor in many cases physically possible, to directly measure greenhouse gas emissions, methodologies that will reasonably minimize uncertainty and yield accurate results is used for emission quantification. When emission factors are readily available from reliable sources, GHG activity data was multiplied by the emission factors to calculate the relevant emission quantities. However, when emission factors were not available, published calculation models and the mass balance approach was used to quantify emissions. In all cases, the best available activity data was used to calculate or estimate emissions from a specific source. Metric tonne is the unit of measure used and quantity of each type of GHG was converted to tonnes of CO<sub>2</sub>e using Global Warming Potentials (GWP) listed by the Intergovernmental Panel on Climate Change (IPCC, 2006).

While activity data obtained from utility bills (i.e. grid electricity, water) yield accurate data, approximation of the purchased quantities to consumed amounts, such as in the case of direct fuel combustion, may result in some minimal uncertainty in the data used.

All sources of activity data and emission factors used in the calculations are described in detail below and the complete set of emission factors and calculation models used is summarised in Appendix A.

# GHG Emissions by Source 2024/2025 (ISO 14064-1; 2018)

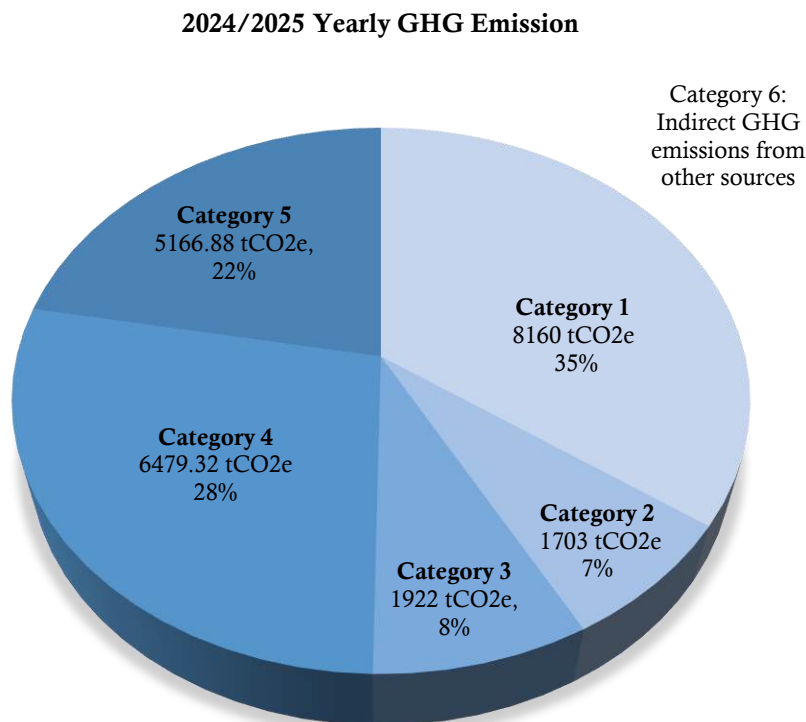
Table 1: GHG emissions by source

| Emission Source                                                  | tCO <sub>2</sub> e | CO <sub>2</sub> (tCO <sub>2</sub> ) | CH <sub>4</sub> (tCO <sub>2</sub> e) | N <sub>2</sub> O (tCO <sub>2</sub> e) | HFC (tCO <sub>2</sub> e) |
|------------------------------------------------------------------|--------------------|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------|
| Total Direct GHG emissions                                       |                    |                                     |                                      |                                       |                          |
| <b>Category 1: Direct GHG Emissions and Removals</b>             |                    |                                     |                                      |                                       |                          |
| <b>1.1 Direct Emission from Stationary Combustion</b>            |                    |                                     |                                      |                                       |                          |
| Stand by Generator                                               | 66.7               | 66.29                               | 0.266                                | 0.146                                 | -                        |
| LPG Combustion                                                   | 14.74              | 14.7                                | 0.034                                | 0.006                                 | -                        |
| Firewood                                                         | 1662.6             | -                                   | 1465.1                               | 197.517                               | -                        |
| Briquettes                                                       | 39.16              | -                                   | 34.507                               | 4.652                                 | -                        |
| <b>1.2. Direct Emission from Mobile Combustion</b>               |                    |                                     |                                      |                                       |                          |
| Mobile equipment (Off-road) – Diesel                             | 168.87             | 152.53                              | 0.254                                | 16.072                                | -                        |
| Mobile equipment (Off-road) – Petrol                             | 70.05              | 65.97                               | 3.97                                 | 0.103                                 | -                        |
| Diesel - company vehicles                                        | 258.34             | 254.29                              | 0.39                                 | 3.653                                 | -                        |
| Petrol - company vehicles                                        | 91.354             | 88.97                               | 1.26                                 | 1.121                                 | -                        |
| Fuel Allowance (Diesel)                                          | 26.39              | 25.98                               | 0.04                                 | 0.373                                 | -                        |
| Fuel Allowance (Petrol)                                          | 46.134             | 44.93                               | 0.637                                | 0.566                                 | -                        |
| <b>1.3. Direct Emissions and removal from industrial process</b> |                    |                                     |                                      |                                       |                          |
| Process Emission                                                 |                    |                                     |                                      |                                       |                          |

|                                                                                               |         |         |   |   |        |
|-----------------------------------------------------------------------------------------------|---------|---------|---|---|--------|
| Mixed food & garden waste Composting/Anaerobic digestion                                      | 1.97    | 19.73   | - | - | -      |
| <b>1.4. Direct Emissions from Fugitive Emissions</b>                                          |         |         |   |   |        |
| Refrigeration and air conditioning                                                            | 0.14    | -       | - | - | 138.96 |
| Use CO2 fire extinguisher                                                                     | 0.17    | 166     | - | - | -      |
| Direct Emission from fertilizer                                                               | 5713.36 | 5713.36 | - | - | -      |
| <b>Total Indirect GHG Emissions</b>                                                           |         |         |   |   |        |
| <b>Category 2: Indirect GHG Emissions from import energy</b>                                  |         |         |   |   |        |
| Category 2.1: Indirect Emissions from import electricity                                      | 1703    | 1703    | - | - | -      |
| <b>Category 3: Indirect GHG Emission from transportation</b>                                  |         |         |   |   |        |
| Upstream transportation & distribution                                                        | 590.34  | -       | - | - | -      |
| Business travel                                                                               | 78.93   | -       | - | - | -      |
| Employee commuting                                                                            | 45.59   | -       | - | - | -      |
| Downstream transportation & distribution                                                      | 1207.14 | -       | - | - | -      |
| <b>Category 4: Indirect GHG emissions from products and services used by the organization</b> |         |         |   |   |        |
| Purchased goods and services                                                                  | 5798.72 | -       | - | - | -      |
| Capital goods                                                                                 | 125.81  | -       | - | - | -      |
| Fuel- and energy-related activities                                                           | 552.81  | -       | - | - | -      |
| Waste generated in operations                                                                 | 1.98    | -       | - | - | -      |
| Upstream Leased Assets                                                                        | N/A     | -       | - | - | -      |

|                                                                                                     |                |                |                |               |               |
|-----------------------------------------------------------------------------------------------------|----------------|----------------|----------------|---------------|---------------|
| <b>Category 5: Indirect GHG emissions associated with the use of products from the organization</b> |                |                |                |               |               |
| Processing of sold products                                                                         | 827.59         | -              | -              | -             | -             |
| Use of Sold Products                                                                                | N/A            | -              | -              | -             | -             |
| End of life treatment of sold products                                                              | 4159.74        | -              | -              | -             | -             |
| Downstream leased assets                                                                            | 179.55         | -              | -              | -             | -             |
| Franchises                                                                                          | N/A            | -              | -              | -             | -             |
| Investments                                                                                         | N/A            | -              | -              | -             | -             |
| <b>Category 6: Indirect GHG emissions from other sources</b>                                        |                |                |                |               |               |
| Emissions from Municipal water supply                                                               | 0.41           | -              | -              | -             | -             |
| <b>Total GHG Emission</b>                                                                           | <b>23431.2</b> | <b>8315.75</b> | <b>1506.45</b> | <b>224.20</b> | <b>138.96</b> |

Talawakelle Tea Estates PLC category visa GHG emission interpreted in following graph.



At Talawakelle Tea Estates PLC, the total greenhouse gas (GHG) emissions amount to 23,431.2 tCO<sub>2</sub>e, distributed across five key categories. The highest contribution comes from Category 1 – Direct GHG emissions and removals, representing 35% (8,160 tCO<sub>2</sub>e), which includes emissions from estate-level operations and fuel use. Category 4 – Indirect GHG emissions from products and services used contributes 28% (6,479.32 tCO<sub>2</sub>e), mainly driven by inputs sourced for tea cultivation and processing. Category 5 – Indirect emissions associated with the use of products sold by the company accounts for 22% (5,166.88 tCO<sub>2</sub>e), reflecting downstream impacts such as product usage and disposal. Category 3 – Transportation-related emissions contribute 8% (1,922 tCO<sub>2</sub>e), while Category 2 – Emissions from imported energy adds the remaining 7% (1,703 tCO<sub>2</sub>e) while Category 6 emission is not significant.

**Category 1:** Direct GHG Emissions and Removals 8160 tCO<sub>2</sub>e

**Category 2:** Indirect GHG Emissions from import energy 1703 tCO<sub>2</sub>e

**Category 3:** Indirect GHG Emission from transportation 1922 tCO<sub>2</sub>e

**Category 4:** Indirect GHG emissions from products and services used by the organization 6479.32 tCO<sub>2</sub>e

**Category 5:** Indirect GHG emissions associated with the use of products from the organization 5166.88 tCO<sub>2</sub>e

**Category 6:** Indirect GHG emissions from other sources 0.41 tCO<sub>2</sub>e

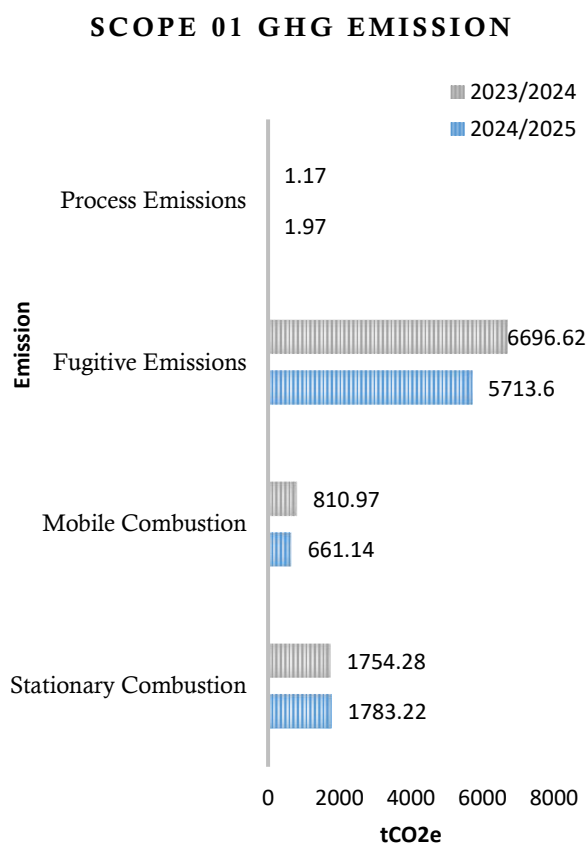
**GHG Emission by Scope 2024/2025 & 2023/2024 yearly Comparison (As per the GHG Protocol)**

*Table 2: GHG emission by scope 2024/2025 & 2023/2024*

| Item                                                     | 2024/25<br>Total tCO2 | 2023/24<br>Total tCO2 | Variation     |
|----------------------------------------------------------|-----------------------|-----------------------|---------------|
| <b>Scope 01</b>                                          |                       |                       |               |
| <b>Stationary Combustion</b>                             |                       |                       |               |
| Diesel for Generator                                     | 66.70                 | 68.35                 | -2.4%         |
| LPG use                                                  | 14.74                 | 12.56                 | 17.4%         |
| Biomass                                                  | 1701.78               | 1673.37               | 1.7%          |
| <b>Mobile Combustion</b>                                 |                       |                       |               |
| Diesel (Off-road)                                        | 168.87                | 173.03                | -2.4%         |
| Petrol (Off-road)                                        | 70.05                 | 146.04                | -52.0%        |
| Diesel (On Road)                                         | 284.74                | 268.35                | 6.1%          |
| Petrol (On Road)                                         | 137.48                | 223.55                | -38.5%        |
| <b>Fugitive Emissions</b>                                |                       |                       |               |
| Refrigeration and air conditioning                       | 0.14                  | 0.14                  | 0.0%          |
| Use CO2 fire extinguisher                                | 0.17                  | 0.17                  | -2.4%         |
| Direct Emission from fertilizer                          | 5713.36               | 6696.31               | -14.7%        |
| <b>Process Emissions</b>                                 |                       |                       |               |
| Mixed food & garden waste Composting/Anaerobic digestion | 1.97                  | 1.17                  | 68.7%         |
| <b>Total Scope 01 Emission</b>                           | <b>8160.01</b>        | <b>9263.04</b>        | <b>-11.9%</b> |

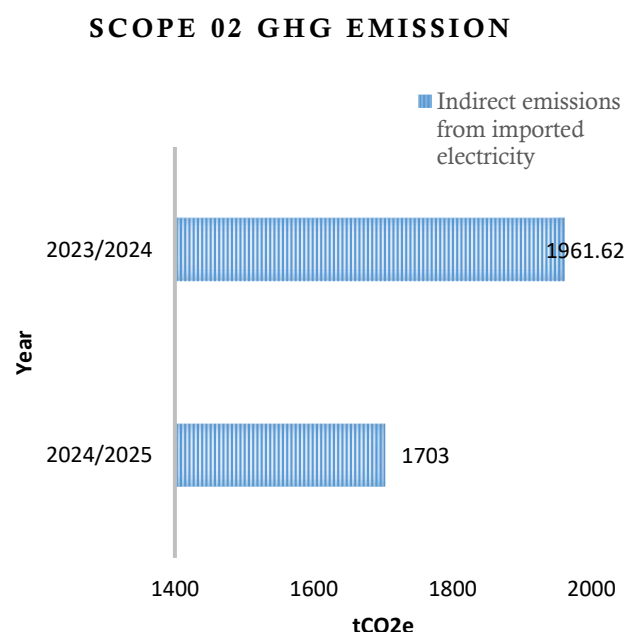
| Scope 02                                              |                  |                  |               |
|-------------------------------------------------------|------------------|------------------|---------------|
| Indirect emissions from imported electricity          | 1,703.00         | 1961.62          | -13.2%        |
| <b>Total Scope 02 Emission</b>                        | <b>1,703.00</b>  | 1961.62          | -13.2%        |
| Scope 03                                              |                  |                  |               |
| (Category 1) Purchased goods and services             | 5798.72          | 6145             | -5.64%        |
| (Category 2) Capital goods                            | 125.81           | 60.57            | 107.71%       |
| (Category 3) Fuel- and energy-related activities      | 552.81           | 694.44           | -20.39%       |
| (Category 4) Upstream transportation & distribution   | 590.34           | 516.72           | 14.25%        |
| (Category 5) Waste generated in operations            | 1.98             | 1.19             | 66.39%        |
| (Category 6) Business travel                          | 78.93            | 38.32            | 105.98%       |
| (Category 7) Employee commuting                       | 45.59            | 47.87            | -4.76%        |
| (Category 8) Upstream Leased Assets                   | Non              | Non              | -             |
| (Category 9) Downstream transportation & distribution | 1207.14          | 1253.88          | -3.73%        |
| (Category 10) Processing of sold products             | 827.59           | 769.13           | 7.60%         |
| (Category 11) Use of Sold Products                    | N/A              | N/A              | -             |
| (Category 12) End of life treatment of sold products  | 4159.74          | 4291.32          | -3.07%        |
| (Category 13) Downstream leased assets                | 179.55           | 151.62           | 18.42%        |
| (Category 14) Franchises                              | Non              | Non              | -             |
| (Category 15) Investments                             | Non              | Non              | -             |
| <b>Total Scope 03 Emission</b>                        | <b>13,568.20</b> | <b>13970.06</b>  | <b>-2.88%</b> |
| <b>Total Emission</b>                                 | <b>23,431.21</b> | <b>25,194.72</b> | <b>-7.00%</b> |
| Biogenic Emission from Firewood and Briquettes        | 20735.32         | 20389.33         | 1.70%         |

Accordingly, the total emission can be deriving in following Scope 01, Scope 02 & Scope 03.



*Figure 3: Scope 01 emission distribution*

The figure 3 shows "Scope 01 GHG Emission" illustrates greenhouse gas emissions in metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e) across four categories Process Emissions, Fugitive Emissions, Mobile Combustion, and Stationary Combustion for the periods 2023/2024 and 2024/2025. Process Emissions remain minimal, increasing slightly from 1.17 tCO<sub>2</sub>e to 1.97 tCO<sub>2</sub>e. Fugitive Emissions dominate, dropping significantly from 6696.62 tCO<sub>2</sub>e to 5713.6 tCO<sub>2</sub>e. Mobile Combustion shows a moderate decline from 810.97 tCO<sub>2</sub>e to 661.14 tCO<sub>2</sub>e, while Stationary Combustion remains substantial, rising slightly from 1754.28 tCO<sub>2</sub>e to 1783.22 tCO<sub>2</sub>e. Overall, the data suggests a general reduction in emissions, particularly in Fugitive and Mobile Combustion categories, despite slight increases in Process and Stationary Combustion.



*Figure 4: Scope 02 emission distribution*

Figure 4 illustrates the trend in indirect emissions arising from imported electricity, expressed in metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e), over the reporting periods 2023/24 and 2024/25. These emissions fall under Scope 2 of the GHG Protocol, as they are generated from electricity purchased and consumed in operations, rather than produced directly on-site. Monitoring this category of emissions is particularly important, as it reflects the efficiency of energy use within factories and estates as well as the emission factor of the national electricity grid. In 2023/24, indirect emissions from imported electricity were recorded at 1,961.62 tCO<sub>2</sub>e, representing a significant contribution to the organization's overall carbon footprint. By 2024/25, this figure decreased to 1,703 tCO<sub>2</sub>e, marking a notable reduction of over 250 tCO<sub>2</sub>e. This downward trend reflects the combined impact of energy efficiency measures implemented within estate factories, such as the adoption of LED lighting, improved energy management practices, and optimization of machinery and processing equipment. Additionally, the reduction may also indicate a growing contribution from renewable and low-carbon energy sources in the national electricity grid mix, thereby lowering the carbon intensity of purchased electricity.

## SCOPE 3 GHG EMISSION

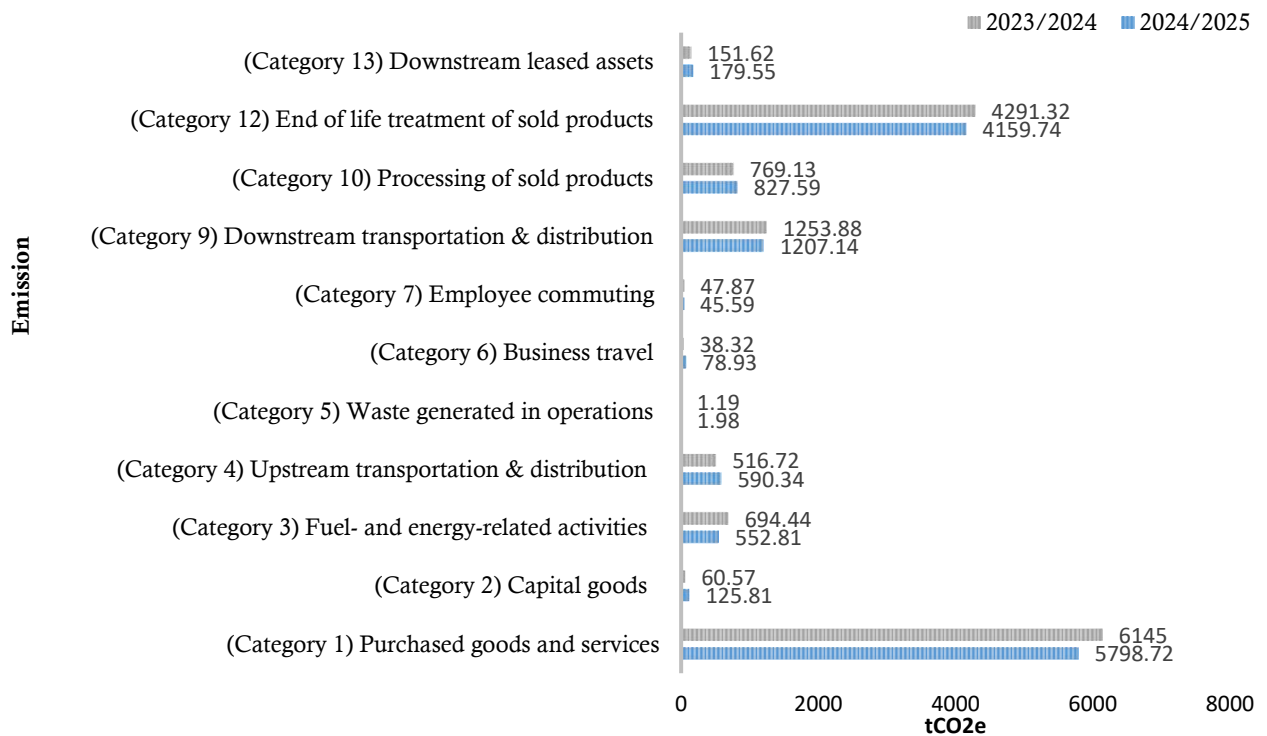


Figure 5: Scope 03 emission distribution

The Scope 3 GHG Emission chart compares greenhouse gas emissions across various categories for the years 2023/2024 and 2024/2025. The largest sources of emissions are “Purchased goods and services” and “End of life treatment of sold products,” both showing a decrease in 2024/2025 compared to the previous year, from 6145 tCO<sub>2</sub>e to 5798.72 tCO<sub>2</sub>e and from 4291.32 tCO<sub>2</sub>e to 4159.74 tCO<sub>2</sub>e, respectively. Other notable categories include “Downstream transportation & distribution” and “Processing of sold products,” with the former slightly decreasing and the latter increasing in 2024/2025. Minor categories such as employee commuting, business travel, waste generated in operations, and capital goods contribute significantly less to the overall emissions. Overall, the chart indicates a general downward trend in most major Scope 3 emission categories, suggesting progress in emission reduction efforts, though some areas, like processing of sold products and downstream leased assets, have seen slight increases.

### Emission Reduction Intensity

At Talawakelle Tea Estates PLC, emission reduction intensity serves as a critical measure of how efficiently we manage our greenhouse gas (GHG) emissions.

### EMISSION INTENSITY REDUCTION

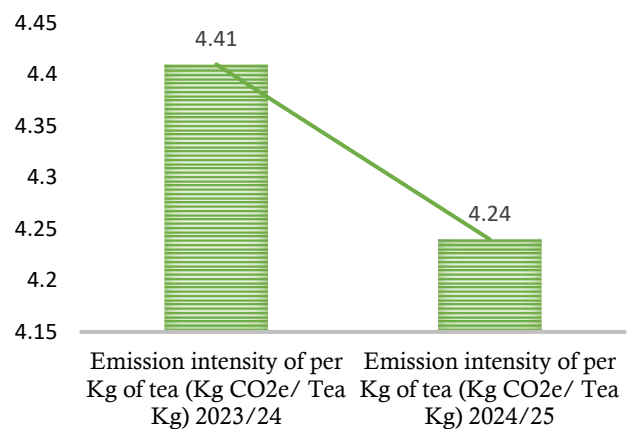
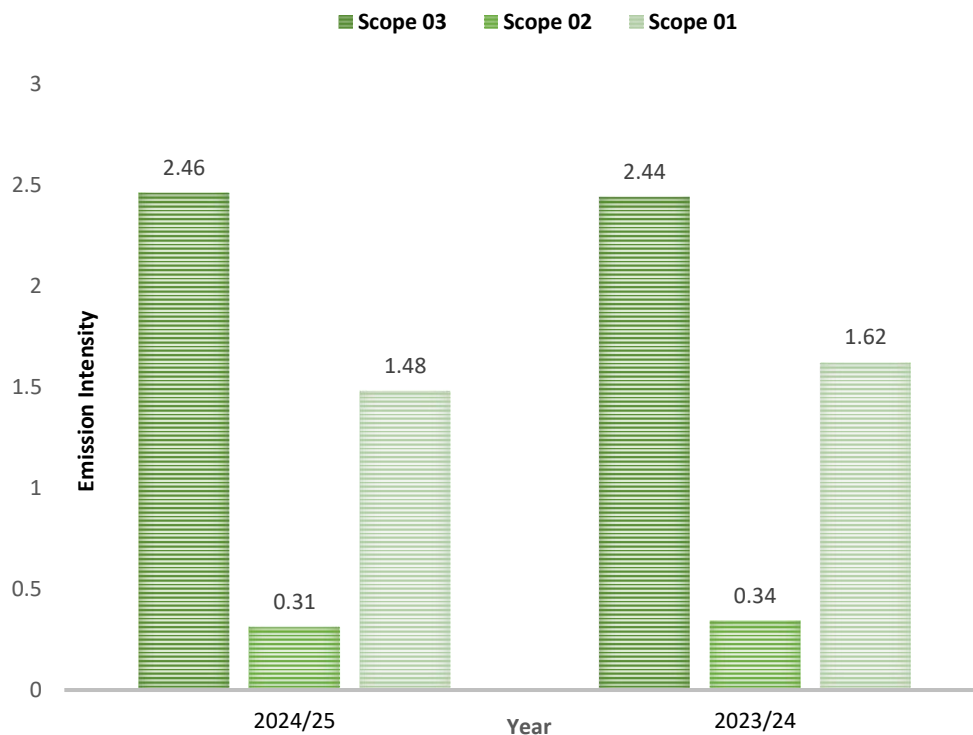


Figure 6: Emission intensity reduction

The graph illustrates a notable reduction in emission intensity at Talawakelle Tea Estates PLC between the financial years 2023/24 and 2024/25. In 2023/24, the emission intensity stood at 4.41 kg CO<sub>2</sub>e per kilogram of tea produced. This figure was successfully reduced to 4.24 kg CO<sub>2</sub>e in 2024/25, reflecting a 3.86% decrease. This improvement highlights the company’s ongoing commitment to sustainable production practices and climate responsibility. This progress supports Talawakelle Tea Estates’ long-term goal of achieving net-zero greenhouse gas emissions by 2050, in line with its Science Based Targets initiative (SBTi) commitments.

## EMISSION REDUCTION INTENSITY BY SCOPE



*Figure 7: Emission reduction intensity by scope*

The figure “Emission Reduction Intensity by Scope” illustrates the comparative performance of Scope 1, Scope 2, and Scope 3 emission intensities for the reporting periods 2023/24 and 2024/25. Emission intensity in this context measures the amount of greenhouse gas (GHG) emissions released per unit of production or activity, providing an important indicator of operational efficiency and climate impact. Lower emission intensity values signify that the organization is able to generate the same level of output while using fewer resources or producing fewer emissions, thereby aligning with sustainable production principles. For the year 2024/25, Scope 1 emission intensity which captures direct emissions from estate operations such as fuel combustion and field practices showed a notable improvement, reducing from 1.62 to 1.48. This reduction highlights the effectiveness of on-site energy efficiency measures, fuel switching, and improved estate-level resource management practices. Scope 2 intensity, which covers indirect emissions from purchased electricity, also declined slightly from 0.34 to 0.31. This improvement can be attributed to optimized energy usage within factories, the transition to

energy-efficient technologies, and increased reliance on renewable or low-carbon energy sources. On the other hand, Scope 3 emission intensity which represents emissions across the value chain, including transportation, procurement, and distribution—recorded a marginal increase from 2.44 in 2023/24 to 2.46 in 2024/25. This outcome suggests that while internal operations are becoming more efficient, there remains a significant challenge in addressing emissions embedded in upstream and downstream activities. Factors such as increased logistics requirements, supplier-related emissions, or greater consumer demand may have contributed to this rise. Taken together, the chart conveys that the organization has achieved meaningful progress in reducing both direct operational emissions (Scope 1) and energy-related emissions (Scope 2), reinforcing its commitment to operational sustainability. At the same time, the results underline the importance of strengthening partnerships and innovation within the supply chain to effectively manage Scope 3 emissions, which represent the largest share of total emission intensity and require a more collaborative, long-term reduction strategy.

## Emission by Scope Comparison Compared to Base year

Table 3: Emission by scope comparison compared to base year

| Item                                                     | 2024/25                  | 2022/23                  | Change % |
|----------------------------------------------------------|--------------------------|--------------------------|----------|
|                                                          | Total tCO <sub>2</sub> e | Total tCO <sub>2</sub> e |          |
| <b>Scope 01</b>                                          |                          |                          |          |
| <b>Stationary Combustion</b>                             |                          |                          |          |
| Diesel for Generator                                     | 66.70                    | 114.14                   | ▼ -41.6  |
| LPG use                                                  | 14.74                    | 10.21                    | 44.4     |
| Biomass                                                  | 1701.78                  | 1672.79                  | 1.7      |
| <b>Mobile Combustion</b>                                 |                          |                          |          |
| Diesel (Off-road)                                        | 168.87                   | 131.04                   | 28.9     |
| Petrol (Off-road)                                        | 70.05                    | 77.85                    | ▼ -10.0  |
| Diesel (On Road)                                         | 284.74                   | 216.52                   | 31.5     |
| Petrol (On Road)                                         | 137.48                   | 150.75                   | ▼ -8.8   |
| <b>Fugitive Emissions</b>                                |                          |                          |          |
| Refrigeration and air conditioning                       | 0.14                     | 11.61                    | ▼ -98.8  |
| Use CO2 fire extinguisher                                | 0.17                     | 0.097                    | 71.1     |
| Direct Emission from fertilizer                          | 5713.36                  | 3185.97                  | 79.3     |
| <b>Process Emissions</b>                                 |                          |                          |          |
| Mixed food & garden waste Composting/Anaerobic digestion | 1.97                     | -                        | -        |
| <b>Total Scope 01</b>                                    | <b>8160.01</b>           | <b>5570.98</b>           | 46.5     |
| <b>Scope 02</b>                                          |                          |                          |          |
| Indirect emissions from imported electricity             | 1,703.00                 | 2147.83                  | ▼ -20.7  |
| <b>Total Scope 02</b>                                    | <b>1,703.00</b>          | 2147.83                  | ▼ -20.7  |
| <b>Scope 03</b>                                          |                          |                          |          |
| (Category 1) Purchased goods and services                | 5798.72                  | 3593.63                  | 61.4     |
| (Category 2) Capital goods                               | 125.81                   | 24.57                    | 412.0    |
| (Category 3) Fuel- and energy-related activities         | 552.81                   | 1087.86                  | ▼ -49.2  |

|                                                       |                  |                  |         |
|-------------------------------------------------------|------------------|------------------|---------|
| (Category 4) Upstream transportation & distribution   | 590.34           | 181.61           | 225.1   |
| (Category 5) Waste generated in operations            | 1.98             | 2.93             | ▼ -32.4 |
| (Category 6) Business travel                          | 78.93            | 12.85            | 514.2   |
| (Category 7) Employee commuting                       | 45.59            | 119.67           | ▼ -61.9 |
| (Category 8) Upstream Leased Assets                   | N/A              | N/A              |         |
| (Category 9) Downstream transportation & distribution | 1207.14          | 1715.94          | ▼ -29.7 |
| (Category 10) Processing of sold products             | 827.59           | 3942.66          | ▼ -79.0 |
| (Category 11) Use of Sold Products                    | N/A              | N/A              |         |
| (Category 12) End of life treatment of sold products  | 4159.74          | 7869.38          | ▼ -47.1 |
| (Category 13) Downstream leased assets                | 179.55           | 27.89            | 543.8   |
| (Category 14) Franchises                              | N/A              | N/A              | -       |
| (Category 15) Investments                             | N/A              | N/A              | -       |
| <b>Total Scope 03</b>                                 | <b>13,568.20</b> | <b>18578.99</b>  | ▼ -27.0 |
| <b>Total Emission</b>                                 | <b>23,431.21</b> | <b>26,297.80</b> | ▼ -10.9 |

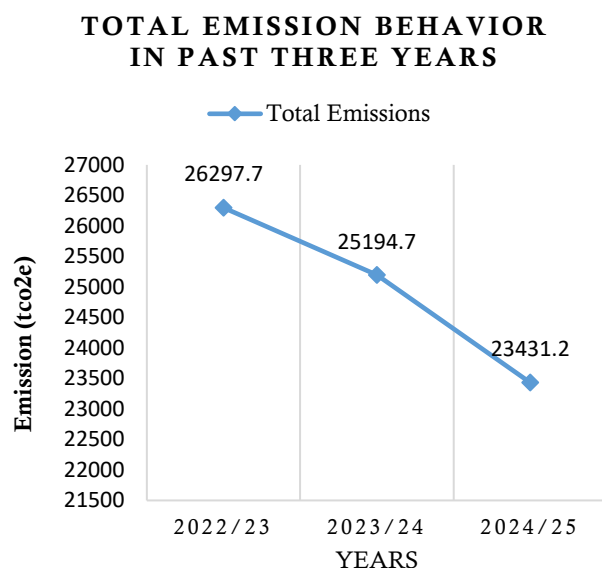


Figure 8: Total emission behaviour in past three year

The graph titled "Total Emission Behaviour in Past Years" is a line chart showing total emissions (in tCO<sub>2</sub>e) over three years, 2022/23, 2023/24, and 2024/25. Emissions started at 26,297.7 tCO<sub>2</sub>e in 2022/23, decreased to 25,194.7 tCO<sub>2</sub>e in 2023/24, and further dropped to 23,431.2 tCO<sub>2</sub>e in 2024/25. The downward trend indicates a consistent reduction in total emissions over the three-year period. Achieving SBTi journey at Talawakelle Tea Estates PLC.

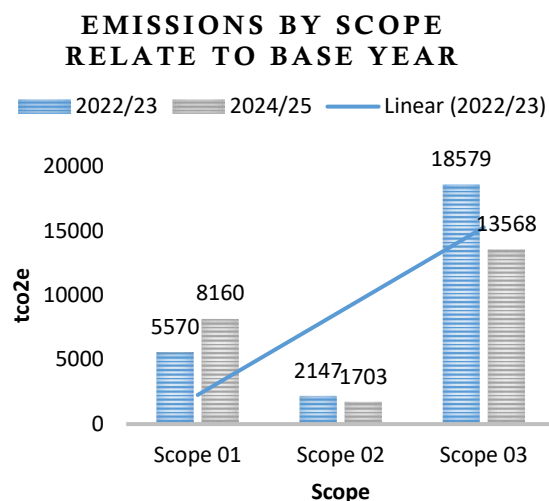


Figure 9: Emission by scope relate to base year

The figure shows "Emissions by Scope Relate to Base Year" illustrates the emissions (in tCO<sub>2</sub>e) across three scopes Scope 01, Scope 02, and Scope 03 for the years 2022/23 and 2024/25, including a linear projection from 2022/23. In 2022/23, emissions were 5570 tCO<sub>2</sub>e for Scope 01, 2147 tCO<sub>2</sub>e for Scope 02, and 1,8579 tCO<sub>2</sub>e for Scope 03, while in 2024/25, 2590 tCO<sub>2</sub>e increase in scope 01 and 444 tCO<sub>2</sub>e reduction in scope 02 while scope 3 shows 5011 tCO<sub>2</sub>e emission reduction.

### GHG Savings of the year 2024/2025

Table 4: GHG saving of the year 2024/2025

| Item                                | Unit                 | tCO <sub>2</sub> | tCH <sub>4</sub><br>(CO <sub>2</sub> Eq) | tN <sub>2</sub> O (CO <sub>2</sub><br>Eq) | tHCFC/HFC (CO <sub>2</sub><br>Eq) | Total tCO <sub>2</sub> |
|-------------------------------------|----------------------|------------------|------------------------------------------|-------------------------------------------|-----------------------------------|------------------------|
| GHG saving from electricity (Hydro) | kWh                  | 5452.72          | -                                        | -                                         | -                                 | 5452.72                |
| GHG saving from electricity (Solar) | kWh                  | 405.97           | -                                        | -                                         | -                                 | 405.97                 |
| Total GHG Saving                    | kgsCO <sub>2</sub> e | 5858.69          | -                                        | -                                         | -                                 | 5858.69                |

The table 4 represents the total GHG (Greenhouse Gas) savings recorded by Talawakelle Tea Estates PLC for the year 2024/2025, totaling 5,858.69 tCO<sub>2</sub>e. These savings are exclusively attributed to the use of renewable electricity sources, with 5,452.72 tCO<sub>2</sub>e saved through the utilization of hydropower and a further 405.97 tCO<sub>2</sub>e through solar energy generation. Both sources have significantly contributed to reducing Scope 2 emissions, with no reported contributions from methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), or refrigerants (HCFC/HFC). This achievement underscores the company's continued commitment to decarbonizing its energy mix and promoting sustainable energy solutions across its operations.

Solar energy accounts for 0.96% of the Company's total energy mix. To date Talawakelle Tea Estates PLC has invested over LKR 59.3 Mn in rooftop solar systems at 6 of our estates. In the current year alone, we allocated significant resources toward solar expansion, including the latest addition to our network, Kiruwanaganga Tea Factory. This factory stands as a benchmark in sustainable design, incorporating energy-efficient systems, natural lighting, and recycled materials, all of which align with global green building principles. With this latest solar rooftop installation, our collective generation capacity increased to 300 KWp. Generation recorded for the current financial year was 2,064.5 GJ.

Hydropower has served as a reliable renewable energy source for Talawakelle Tea Estates PLC for many years, supported by investments in mini hydro plants. that harness natural water flow to generate renewable energy. Mini hydro located at our Somerset, Radella and Palmerston estates which are within designated hydro-catchment areas in Sri Lanka, contribute approximately 13.3% to Talawakelle Tea Estates PLC's renewable energy mix.



## TOTAL GHG SAVING POTENTIALS

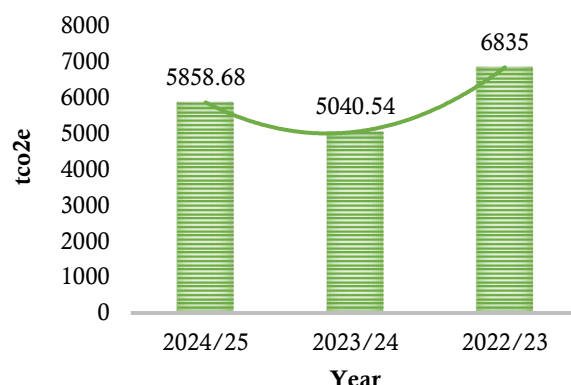


Figure 10: Total GHG saving potentials

The chart titled "Total GHG Saving" presents the annual greenhouse gas (GHG) savings, measured in tonnes of CO<sub>2</sub> equivalent (tCO<sub>2</sub>e), over three consecutive years: 2022/23, 2023/24, and 2024/25. In 2022/23, the organization achieved the highest GHG savings of 6,835 tCO<sub>2</sub>e. This figure declined to 5,040.54 tCO<sub>2</sub>e in 2023/24. However, in 2024/25, GHG savings increased to 5,858.68 tCO<sub>2</sub>e, reflecting a partial recovery and renewed efforts toward emission reductions. The overall trend, depicted by the dashed green line, shows an initial decrease followed by an upward movement, suggesting the organization is regaining momentum in its climate action initiatives. This trend analysis highlights the importance of sustained and enhanced mitigation strategies to achieve consistent and higher GHG savings over time.

## Emissions from The Combustion of Biomass

While emissions data for direct CO<sub>2</sub> emissions from biologically sequestered carbon (e.g. from combustion of biomass) are not accounted for in GHG inventories, it should ideally be reported separately from the scopes. Based on the annual usage obtained from purchase and stock inventory records, the associated CO<sub>2</sub> emissions were calculated according to the emission factors for the stationary combustion of wood and wood waste published in the IPCC guidelines of 2006.

Table 5: Emissions from the combustion of biomass

| Biogenic Emission from Firewood and Briquettes<br>Tea Estates PLCs |                             |
|--------------------------------------------------------------------|-----------------------------|
| 2024/25                                                            | 20735.32 tCO <sub>2</sub> e |
| 2023/24                                                            | 20389.33 tCO <sub>2</sub> e |

### FLAG Emissions

FLAG emissions, as defined by the GHG Protocol, are all greenhouse gas emissions and removals associated with forests, land management, and agricultural activities including plantations, soil and fertilizer management, and land-use change. These must be measured and reported separately from other emissions to ensure comprehensive and credible climate accounting.

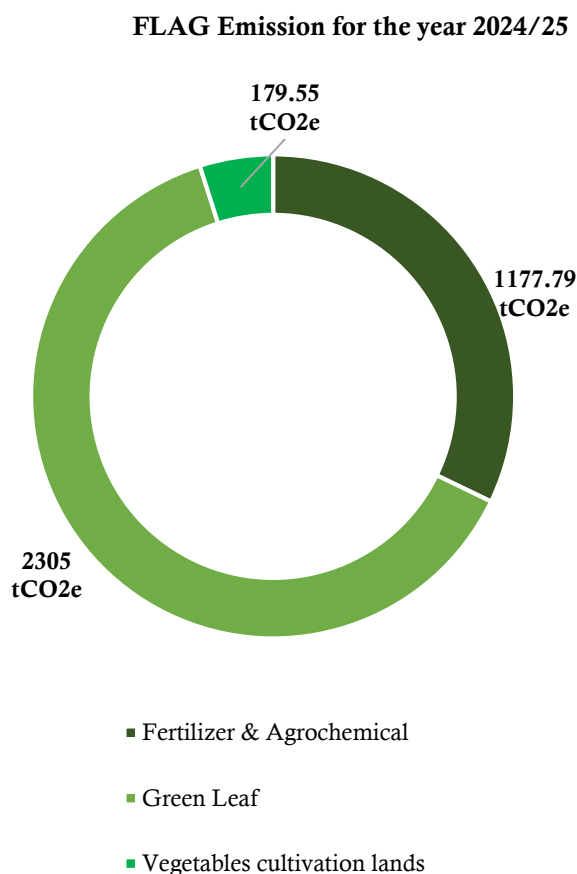


Figure 11: FLAG emission for the year 2024/2025

### Exclusions

Due to constraints in collecting reliable data below identified emission sources were excluded from the GHG inventory for this year.

- Chemical and fertilizer transportation
- Emissions from client and visitor transport

Generation records are not maintained for the quantity of food waste at source level, hence it was excluded from the assessment. Tea residues generated by the factory is re-utilized as inputs to the extent possible.

### Uncertainties

In Sri Lanka, latest available GHG emission factor of grid electricity published by the Sri Lanka Sustainable Energy Authority is based on 2021 calculation. Thus, there is little uncertainty.

Average travel distances were taken for calculations of employee commuting.

As there are no local specific emission factors in Sri Lanka, most of the emission factor was adopted from DEFRA, and fuel NCV was adopted from IPCC. Applying emission factors and NCVs that are not representative of the combustion conditions in the country which also have range of uncertainty.

### GHG Emission Reduction Strategies

Our Environmental Policy, we are focused in our efforts address climate change and global warming. We give due strategic precedence to minimize our GHG emissions and move towards having a lesser carbon footprint. We have progressively adopted best environmental practices, particularly, in managing our energy usage, as discussed above, and ensuring that we meet our emission targets. According to our compressive Environment and Energy policy, we are currently working to develop GHG management policy and strategies according International framework of Science Based Targets Initiatives. However, our core strategic approach and program of the GHG management is mention below.

- **Measure** company greenhouse gas emissions accurately.
- **Reduce** as much as possible through company own actions; and
- **Compensate** those which cannot be currently avoided

Apart from the current practices which Talawakelle Tea Estates PLC follows like close monitoring, installing VFDs for withering, the measures shown in below figure can be taken further to reduce the GHG emissions. Further, the company can look in to develop carbon neutral action plan, identify key mitigation opportunities and develop feasibility studies, develop product carbon footprint for main products and ultimately reach carbon neutral status.

Talawakelle Tea Estates PLC embarked on its Science Based Targets (SBTi) journey to align with global climate goals, including the Paris Agreement, which aims to limit global warming to 1.5°C above pre-industrial levels. The decision was driven by multiple factors, including the increasing risks of climate change on the plantation sector, such as extreme weather events, unpredictable rainfall patterns, and soil degradation. Additionally, the company recognized the need to future-proof its operations by mitigating climate-related risks that could disrupt supply chains and regulatory compliance. Key events that prompted the SBT strategy included the company's commitment to the "UN Climate Neutral Now" initiative, its long-standing Trees Planting Programme, and investments in renewable energy projects such as solar rooftops, hydropower, and biomass boilers. These initiatives laid the foundation for a structured, science-based approach to emissions reduction. SBTi Commitment Talawakelle Tea Estates PLC has further advanced its commitment to the Net Zero emission target by aligning with the Science-Based Targets (SBT) to set ambitious carbon reduction goals to support the achievement of global climate action objectives. In the four years since embarking on the SBTi journey, the most recent verification of Talawakelle Tea Estates PLC's Near-Term Targets has confirmed a 27% reduction in Scope 1 and Scope 2 emissions, which is consistent with the baseline targets established in 2022/23.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION  
**Driving Decarbonisation Across the Value Chain**

Recognising that decarbonisation is a collective responsibility, we have extended our climate action efforts beyond our own operations by collaborating with buyers, brokers, and other key stakeholders across the value chain to co-develop sustainable codes and establish carbon inventory benchmarks for midstream and downstream activities. Talawakelle Tea Estates PLC is also an active member of the Climate Emergency Task Force, an industry-driven initiative focused on driving large-scale climate action within and beyond the plantation sector.

#### **Energy Related Emissions**

The company continuously monitors and measures all energy-related emissions to identify major sources and prioritize mitigation strategies. A detailed energy audit framework enables pinpointing inefficiencies and

reducing dependency on fossil fuels, while setting science-based targets to align with global climate goals.

#### **Transition to Renewable Energy**

A key pillar of the strategy is the gradual transition to renewable energy sources. Solar photovoltaic (PV) systems are being installed across operational sites, while started projects for biomass, hydro. Partnerships with certified green energy suppliers are also explored to accelerate the transition, ensuring that a significant portion of the company's energy mix is sourced sustainably.

Renewable energy infrastructure makes a vital contribution towards strengthening the resilience of Talawakelle Tea Estates PLC's physical asset base. Integrating renewable energy significantly enhances energy security, reducing dependence on fossil fuels, and mitigating operational risks linked to energy cost volatility.

Our journey toward renewable energy began with initial investments in mini hydro projects in 2005, followed by biomass energy in 2012. Talawakelle Tea Estates PLC's initial investment in solar energy in 2016 marked a major milestone in the company's strategy to achieve energy self-sufficiency. We have since been working in line with the national renewable energy initiative led by the Ministry of Power and Renewable Energy and Business Development, and have invested in rooftop solar systems at six Talawakelle Tea Estates PLC factories and twelve bungalows across estates. The most recent investment of a 59.3 Mn solar deck at the Kiruwanaganga estate, and several estate bungalows marks the latest additions to Talawakelle Tea Estates PLC's renewable energy infrastructure. Together these investments have a generation capacity of 300kWp.

#### **Energy Efficiency Improvements**

Continuous investment in energy-efficient technologies is central to emission reduction efforts. Initiatives include upgrading to energy-efficient machinery, LED lighting retrofits, optimizing HVAC systems, introducing variable frequency drives (VFDs) for motors, and deploying automated energy management systems. Implementation of ISO 50001:2018 and conducting Employee awareness programs on energy conservation further strengthen these measures at the operational level.

Beyond energy, the company addresses other emission sources by Optimizing logistics and transportation to reduce fuel use.

Implementing sustainable procurement practices, giving preference to low-carbon goods and services. Enhancing carbon sequestration initiatives through reforestation and soil management projects within

company-owned lands. Piloting innovative technologies such as carbon capture and storage (CCS) where applicable. Annual savings achieved due to energy efficiency improvements and use of renewable energy sources

Non-Energy Related Emissions

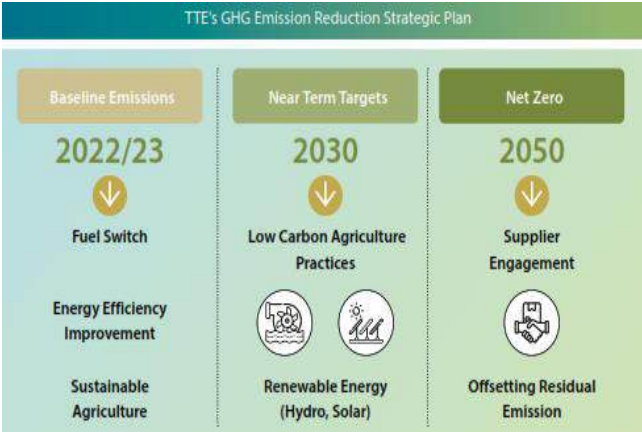
Solid Waste Management

A comprehensive solid waste management program promotes reduction, reuse, and recycling at all operational sites. Organic waste is composted to avoid methane generation in landfills, while recyclable materials such as plastics, paper, and metals are segregated and sent to certified recyclers. Special focus is given to minimizing hazardous waste and ensuring safe, compliant disposal through licensed contractors. Awareness campaigns encourage employees to actively participate in waste minimization initiative waste management activities,

Liquid Waste (Wastewater) Management

The company is committed to managing wastewater responsibly to minimize environmental impacts. All process water and domestic wastewater are treated through on-site treatment plants before discharge.

Future Plans for Emission Reduction



Implementation of SBTi-Aligned Targets

Talawakelle has formally committed to setting Science Based Targets (SBTs) aligned with limiting global warming to 1.5°C, in line with the Paris Agreement. Verified SBTi targets, with validation expected through the SBTi framework.

Comprehensive GHG Accounting

Expanded the company's GHG inventory to fully capture Scope 1 (direct emissions), Scope 2 (indirect energy emissions), and significant Scope 3 (value chain) emissions, as required under SBTi protocols.

Transition to Renewable Energy

Accelerating investments in on-site renewable energy solutions such as solar PV systems and biomass energy, aiming to significantly reduce Scope 2 emissions.

Operational Efficiencies

Driving continuous improvements in energy efficiency across all estates and factories, including upgrading machinery, improving process designs, and minimizing process-related emissions.

Nature-Based Solutions

Enhancing carbon sinks through reforestation, biodiversity conservation, and sustainable land management practices across Talawakelle tea estates.

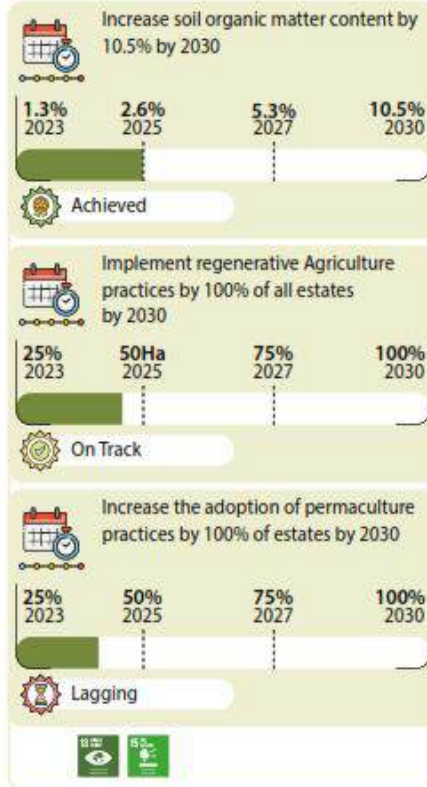
Supplier Engagement

Engaging with key suppliers to promote low-carbon practices, particularly in upstream agricultural and logistics activities, contributing to Scope 3 emission reductions.

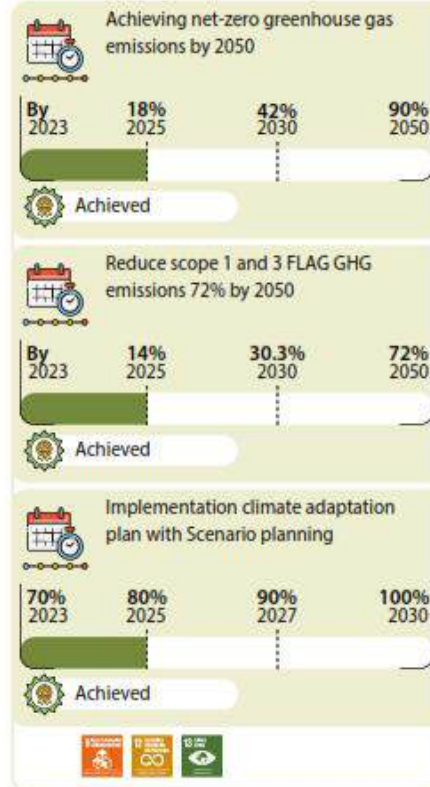
## 2030 Regenerative Agenda through ESG Framework

### Environment - Net-positive impact

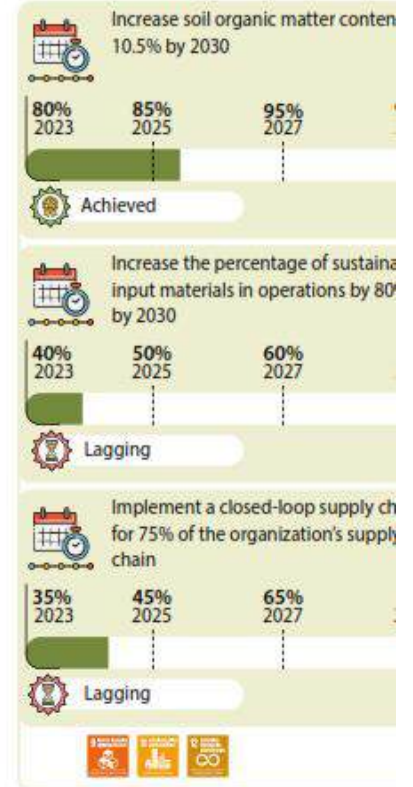
#### Sustainable Land Management



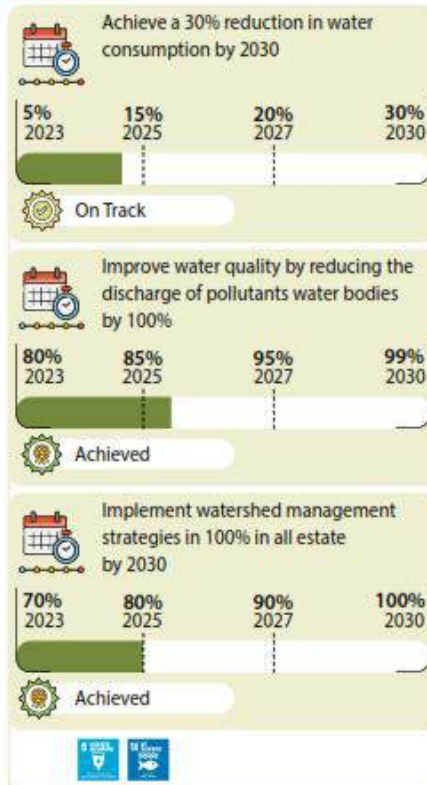
#### Climate Action



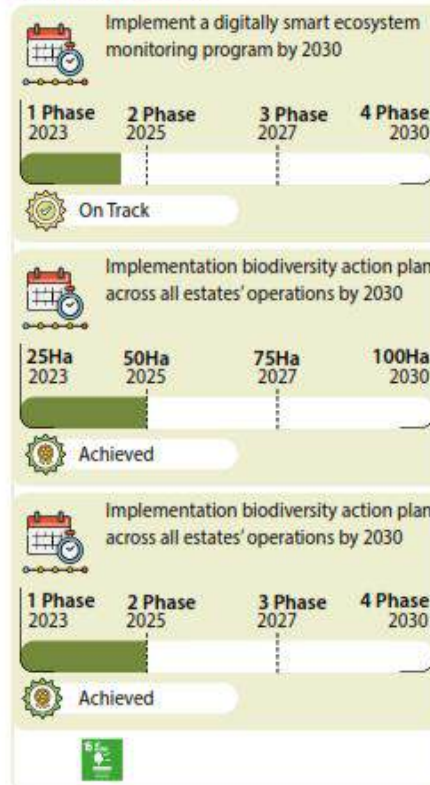
#### Circular resource management & Renewable Energy



#### Water Stewardship



#### Biodiversity conservation and ecosystem restoration





## GREENHOUSE GAS VERIFICATION OPINION

Sri Lanka Climate Fund (Pvt) Ltd

Ministry of Environment

Organization Level GHG statement developed by

**Talawakelle Tea Estates PLC**

**No.400, Deans Road, Colombo 10, Sri Lanka**

complying with the requirements of ISO 14064-1:2018 has been verified in accordance with the specification of ISO 14064-3:2019 with reasonable level of assurance\*

|                            |                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------|
| Opinion No                 | : SLCF/CFP/0358                                                                                                |
| Date of Issue              | : 20.05.2025                                                                                                   |
| Period of Assessment       | : 01.04.2024 – 31.03.2025                                                                                      |
| Selected Boundary          | : Operationally controlled business operations of Talawakelle Tea Estates PLC (Head Office and 16 Tea Estates) |
| Direct GHG Emissions       | : 8,161 tonnes of CO <sub>2</sub> equivalent                                                                   |
| Indirect GHG Emissions     | : 15,271 tonnes of CO <sub>2</sub> equivalent                                                                  |
| <b>Total GHG Emissions</b> | <b>: 23,432 tonnes of CO<sub>2</sub> equivalent</b>                                                            |

|                                                   |                                               |
|---------------------------------------------------|-----------------------------------------------|
| <b>**Scope 1</b> Direct GHG Emissions             | : 8,161 tonnes of CO <sub>2</sub> equivalent  |
| <b>Scope 2</b> Electricity Indirect GHG Emissions | : 1,703 tonnes of CO <sub>2</sub> equivalent  |
| <b>Scope 3</b> Other Indirect GHG Emissions       | : 13,569 tonnes of CO <sub>2</sub> equivalent |



  
Chairman  
Sri Lanka Climate Fund (Pvt) Ltd

  
Chief Executive Officer  
Sri Lanka Climate Fund (Pvt) Ltd

Period of Validity: 20.05.2025 – 30.06.2026

Exclusions: GHG Emissions from Land use Change

\*Materiality threshold is below 5%, \*\*GHG emissions have been reported in accordance with GHG Protocol

## Appendix A

Table 6: Activity data used for quantifying GHGs

| Emission Source                                             | Activity Data Type                       | Unit  | Reference Data Source      | Description                                                                                         |
|-------------------------------------------------------------|------------------------------------------|-------|----------------------------|-----------------------------------------------------------------------------------------------------|
| Standby Generator                                           | Fuel consumption                         | Liter | Stock book record keeping  | Fuel used in standby generators to provide backup power during outages.                             |
| LPG Combustion                                              | Fuel Consumption                         | Liter | Stock book record keeping  | Fuel consumption of LPG used for Cooking Purpose                                                    |
| Company-Owned Vehicles                                      | Fuel Consumption                         | Liter | Stock book record keeping  | Fuel consumption of vehicles owned and operated by the company for business purposes.               |
| Off-Road Transport                                          | Fuel Consumption                         | Liter | Stock book record keeping  | Fuel used by off-road vehicles or equipment involved in operational tasks                           |
| Leakages from CO2 Fire Extinguishers                        | CO2 fire extinguisher refilled amount    | kg    | Service Providers Database | Amount of CO2 refilled in extinguishers, accounting for fugitive emissions.                         |
| Emissions from Import Electricity                           | Grid electricity consumption             | kWh   | Electricity Bills          | Electricity purchased from the grid and consumed in operational facilities.                         |
| Raw Material Transportation - Land                          | Mileage of transport                     | km    | Central Financial reports  | Distance travelled during land-based transportation of raw materials - Port to warehouses           |
| Finished Goods Transportation - Land                        | Mileage of transport                     | km    | Central Financial reports  | Distance covered in the land transportation of finished goods to distribution to Port.              |
| Employee Commuting                                          | Mileage of transport relevant to vehicle | km    | Survey                     | Total distance employees commute to and from the workplace, categorized by vehicle type.            |
| Disposal of Solid and Liquid Waste                          | Waste transport mileage                  | km    | Sustainability data base   | Distance travelled during the transportation of waste to disposal facilities.                       |
| Transmission and Distribution Loss of Purchased Electricity | Grid electricity consumption             | kWh   | Electricity Bills          | Indirect emissions due to losses during the transmission and distribution of purchased electricity. |

|                                          |                                                    |               |                                                                |                                                                                       |
|------------------------------------------|----------------------------------------------------|---------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Emissions from Municipal Water Supply    | Municipal water consumption                        | m3            | Water Bills                                                    | Water consumption data used to estimate emissions from the supply of municipal water. |
| Purchased goods and services             | Financial value of expenditure                     | USD, Kg       | Financial value of expenditure/ DEFRA Factors for use quantity | Purchased goods and services emission estimation                                      |
| Capital goods                            | Financial value of expenditure                     | USD           | GZA Scope 3 Calculator (Expenditure based)                     | Capital goods expenditure for emission estimation                                     |
| Fuel- and energy-related activities      | Fuel consumption                                   | Litres, Kg    | DEFRA Factors                                                  | Fuel and energy consumption activities for estimation.                                |
| Upstream transportation & distribution   | Expenditure for transportation & distribution      | USD           | Financial value of expenditure                                 | Total emission occurred for upstream transportation & distribution                    |
| Waste generated in operations            | Waste Generation                                   | Kg            | DEFRA Factors                                                  | Waste generation emission estimation.                                                 |
| Business travel                          | Financial value of expenditure                     | USD           | ICAO Carbon Emissions Calculator (ICEC)                        | Business travel emission estimation                                                   |
| Employee commuting                       | Mileage of transport relevant to vehicle           | Passenger kms | IPCC Factors                                                   | Emission estimation for employee commuting                                            |
| Downstream transportation & distribution | Mileage of transport relevant to vehicle           | tonne.km      | DEFRA Factors                                                  | Emission estimation in downstream transportation and distribution.                    |
| Processing of sold products              | Expenditure based                                  | USD           | Financial value of expenditure                                 | Total emission estimation of processing of sold products                              |
| End of life treatment of sold products   | Quantity of end of life treatment of sold products | Kg, Cum       | DEFRA Factors                                                  | Emission estimation of end of life treatment of sold products                         |
| Downstream leased assets                 | Vegetable cultivated lands                         | Ha            | Local Research                                                 | Emission estimation of downstream leased assets.                                      |

Table 7: Emission factors used for quantifying GHG

| Item                                         | Sources                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Global Warming Potential Fossil              | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Diesel (Stationary)                          | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Diesel (Mobile)                              | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Diesel (Mobile- Off-road)                    |                                                                                                                                                                         |
| Petrol (Stationary)                          | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Petrol (Mobile-Vehicle)                      | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Petrol (Mobile- Off-road) 2 stroke           |                                                                                                                                                                         |
| Petrol (Mobile- Off-road) 4 stroke           | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Kerosene                                     | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)                                                                                                                    |
| Furnace Oil                                  |                                                                                                                                                                         |
| LPG                                          |                                                                                                                                                                         |
| Firewood                                     |                                                                                                                                                                         |
| Electricity 2022                             | <a href="https://www.energy.gov.lk/images/energy-balance/energy-balance-2022.pdf">https://www.energy.gov.lk/images/energy-balance/energy-balance-2022.pdf</a> page: 99  |
| Electricity Conversion & Transmission Losses | <a href="https://ceb.lk/front_img/img_reports/1719383943Statistical_Digest_2023_n.pdf">https://ceb.lk/front_img/img_reports/1719383943Statistical_Digest_2023_n.pdf</a> |
| Electricity (Hydro) Generated                | <a href="https://www.energy.gov.lk/images/energy-balance/energy-balance-2021.pdf">https://www.energy.gov.lk/images/energy-balance/energy-balance-2021.pdf</a> page: 98  |
| Electricity (Solar) Generated                |                                                                                                                                                                         |
| Urea                                         | 2006 IPCC AR5 V4_11_Ch11_N2O&CO2                                                                                                                                        |
| Dolomite                                     |                                                                                                                                                                         |
| Co2-C convert to CO2                         |                                                                                                                                                                         |
| Compost                                      | DEFRA's / DECC's Greenhouse Gas Conversion Factors for company reporting: 2024                                                                                          |
| Paper Sacks                                  |                                                                                                                                                                         |
| Bottled Water                                |                                                                                                                                                                         |
| Passenger Vehicle - Average                  |                                                                                                                                                                         |

|                                                                     |                                                                                                                                                                                          |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delivery Vehicle Average light (up to 3.5 tonnes)                   | DEFRA's / DECC's Greenhouse Gas Conversion Factors for company reporting: 2024                                                                                                           |
| Delivery Vehicle Average Heavy (above to 3.5 tonnes)                |                                                                                                                                                                                          |
| Average passenger with RF                                           |                                                                                                                                                                                          |
| Economy class with RF                                               |                                                                                                                                                                                          |
| Premium economy class with RF                                       |                                                                                                                                                                                          |
| Business class with RF                                              |                                                                                                                                                                                          |
| First class with RF                                                 |                                                                                                                                                                                          |
| Organic: mixed food and garden waste Composting/Anaerobic digestion |                                                                                                                                                                                          |
| Organic: mixed food and garden waste Landfill                       |                                                                                                                                                                                          |
| Commercial and industrial waste Landfill                            |                                                                                                                                                                                          |
| Commercial and industrial waste Anaerobic digestion                 |                                                                                                                                                                                          |
| Glass Recycling                                                     |                                                                                                                                                                                          |
| Plastic Recycling                                                   | DEFRA's / DECC's Greenhouse Gas Conversion Factors for company reporting: 2024                                                                                                           |
| Polythene Recycling                                                 |                                                                                                                                                                                          |
| Metal/Iron Recycling                                                |                                                                                                                                                                                          |
| Paper Recycling                                                     |                                                                                                                                                                                          |
| E-Waste (Nos) Recycling                                             |                                                                                                                                                                                          |
| Water supply                                                        | <a href="https://www.climatechange.lk/Documents/A_Guide_for_Carbon_Footprint_Assessment.pdf">https://www.climatechange.lk/Documents/A_Guide_for_Carbon_Footprint_Assessment.p<br/>df</a> |
| Water treatment                                                     |                                                                                                                                                                                          |
| Non-Fossil CH4                                                      | 2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6))                                                                                                                                    |

## **Glossary**

CEB – Ceylon Electricity Board

CFP – Carbon Footprint

CH<sub>4</sub> – Methane

CO<sub>2</sub> – Carbon dioxide

DEFRA – Department for Environment, Food and Rural Affairs, UK

GHG – Greenhouse Gas

GWP – Global Warming Potential

IPCC – Intergovernmental Panel on Climate Change

kWh – Kilowatt Hour

N<sub>2</sub>O – Nitrous Oxide

NWSDB – National Water Supply & Drainage Board

Pvt – Private

SEA – Sri Lanka Sustainable Energy Authority

SLCF – Sri Lanka Climate Fund

tCO<sub>2</sub>e – Tons of carbon dioxide equivalent

T&D Loss – Transmission & Distribution Loss

US EPA – United States Environmental Protection Agency

WBCSD – World Business Council for Sustainable Development

WRI – World Resources Institute

