GHG

Inventory Report 2024/25

TALAWAKELLE TEA ESTATES PLC

Talawakelle
Tea Estates®

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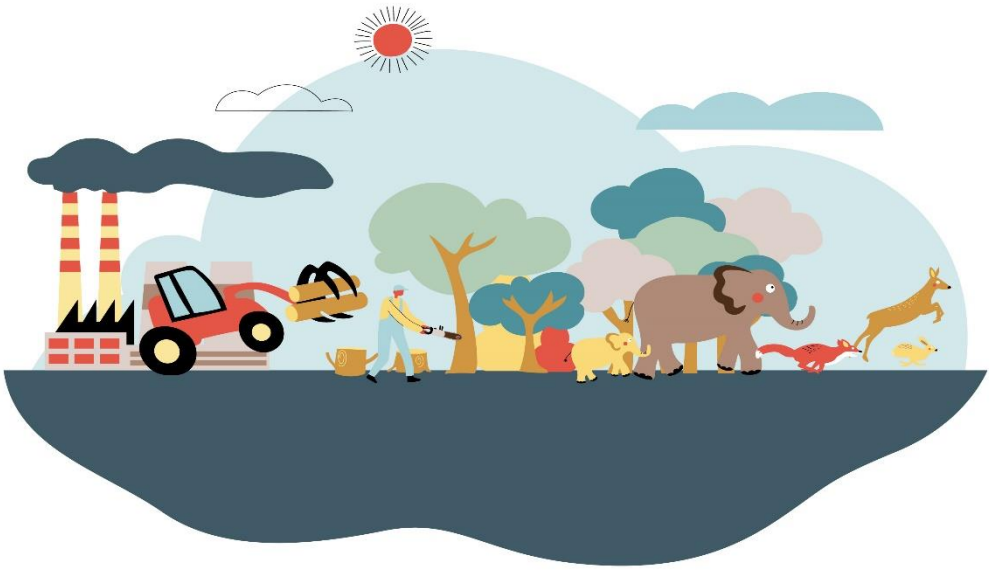


About this Report

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_2e, consisting of 8,160.01 tCO_2e from direct emissions (Scope 1), 1,703.00 tCO_2e from indirect emissions related to electricity consumption (Scope 2), and 13,568.20 tCO_2e 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_2e 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_2e through hydroelectricity and 405.97 tCO_2e from solar power, totaling 5,858.69 tCO_2e in avoided emissions. The emission intensity for the year was calculated at 4.25 kg CO_2e 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 CO2e equivalents of GHG. During the same period, plantation and manufacturing of 1 kilogram of made tea has generated 39 of kgCO2e 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 (tCO2e) 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 (tCO2-e). Figure 1 below summarize the main sources of GHG emissions for the reporting period.

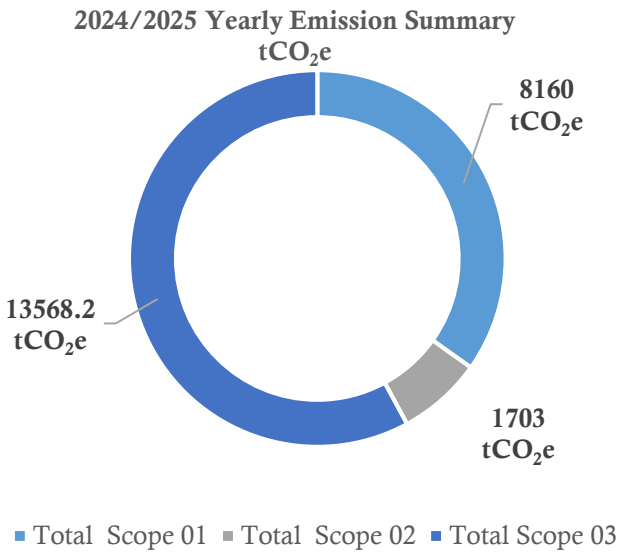


Figure 1: Summary of GHG emission 2024/2025

Amounting Total GHG emission of 23,431.21 tCO_2e including Scope 01 (8,160 tCO_2e) Scope 02 (1,703 tCO_2e) & Scope 03 (13,568 tCO_2e).

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 1st, 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

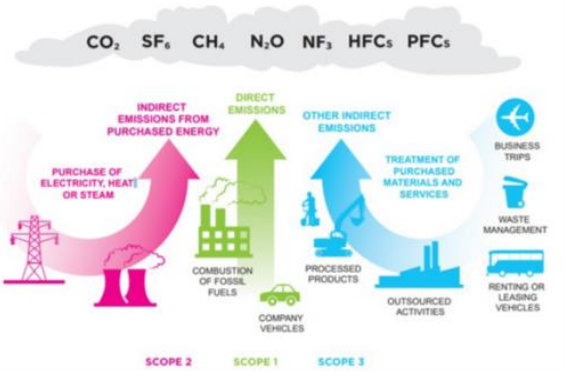
Talawakelle Tea Estates PLC has established an internal recalculation policy to determine when recalculations are appropriate based on significance thresholds, and in each instance of recalculation, will disclose the trigger events that drove the recalculation, the original emissions and the recalculated 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_2 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 CO2, CH4, and N2O 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 (co2) 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 CO2 Eq. A quantity of GHG is expressed as CO2e 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_2e = Tonnes of CO_2e
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_2e 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 CO2e 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

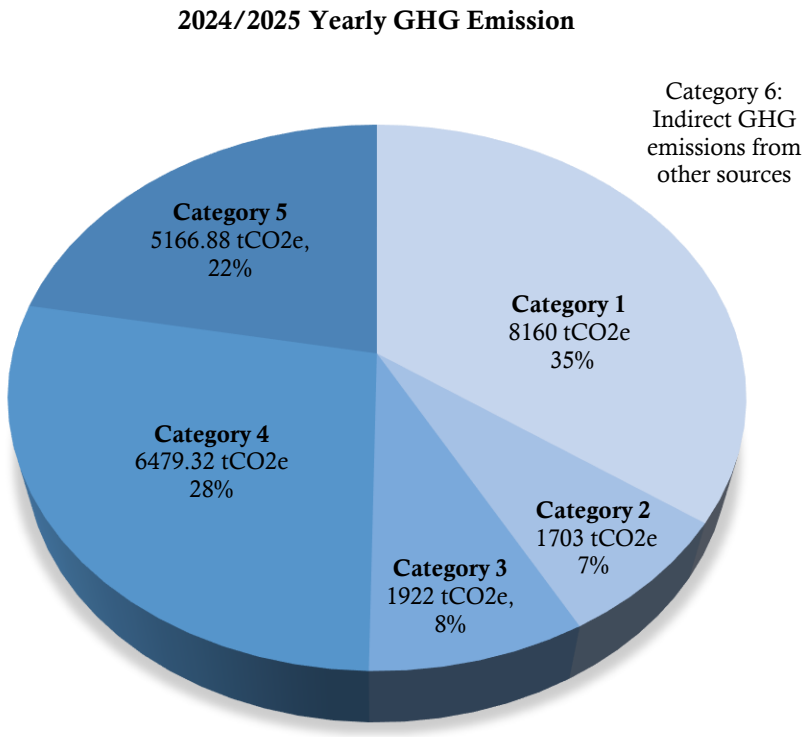
Emission Source	tCO_2e	CO_2 (tCO2)	CH_4 (tCO2e)	N_2O (tCO2e	HFC (tCO2e)
Total Direct GHG emissions					
Category 1: Direct GHG Emissions and Removals					
1.1 Direct Emission from Stationary Combustion					
Stand by Generator	66.7	66.29	0.266	0.146	-
LPG Combustion	14.74	14.7	0.034	0.006	-
Firewood	1662.6	-	1465.1	197.517	-
Briquettes	39.16	-	34.507	4.652	-
1.2. Direct Emission from Mobile Combustion					
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	-
1.3. Direct Emissions and removal from industrial process					
Process Emission					

Mixed food & garden waste Composting/Anaerobic digestion	1.97	19.73	-	-	-
1.4. Direct Emissions from Fugitive Emissions					
Refrigeration and air conditioning	0.14	-	-	-	138.96
Use CO2 fire extinguisher	0.17	166	-	-	-
Direct Emission from fertilizer	5713.36	5713.36	-	-	-
Total Indirect GHG Emissions					
Category 2: Indirect GHG Emissions from import energy					
Category 2.1: Indirect Emissions from import electricity	1703	1703	-	-	-
Category 3: Indirect GHG Emission from transportation					
Upstream transportation & distribution	590.34	-	-	-	-
Business travel	78.93	-	-	-	-
Employee commuting	45.59	-	-	-	-
Downstream transportation & distribution	1207.14	-	-	-	-
Category 4: Indirect GHG emissions from products and services used by the organization					
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	-	-	-	-

Category 5: Indirect GHG emissions associated with the use of products from the organization					
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	-	-	-	-
Category 6: Indirect GHG emissions from other sources					
Emissions from Municipal water supply	0.41	-	-	-	-
Total GHG Emission	23431.2	8315.75	1506.45	224.20	138.96

Figure 2: 2024/2025 yearly GHG emission

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_2e, distributed across five key categories. The highest contribution comes from Category 1 – Direct GHG emissions and removals, representing 35% (8,160 tCO_2e), 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_2e), 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_2e), reflecting downstream impacts such as product usage and disposal. Category 3 – Transportation-related emissions contribute 8% (1,922 tCO_2e), while Category 2 – Emissions from imported energy adds the remaining 7% (1,703 tCO_2e) while Category 6 emission is not significant.

Category 1: Direct GHG Emissions and Removals 8160 tCO_2e

Category 2: Indirect GHG Emissions from import energy 1703 tCO_2e

Category 3: Indirect GHG Emission from transportation 1922 tCO_2e

Category 4: Indirect GHG emissions from products and services used by the organization 6479.32 tCO_2e

Category 5: Indirect GHG emissions associated with the use of products from the organization 5166.88 tCO_2e

Category 6: Indirect GHG emissions from other sources 0.41 tCO_2e

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 Total tCO2	2023/24 Total tCO2	Variation
Scope 01			
Stationary Combustion			
Diesel for Generator	66.70	68.35	-2.4%
LPG use	14.74	12.56	17.4%
Biomass	1701.78	1673.37	1.7%
Mobile Combustion			
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%
Fugitive Emissions			
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%
Process Emissions			
Mixed food & garden waste Composting/Anaerobic digestion	1.97	1.17	68.7%
Total Scope 01 Emission	**8160.01**	**9263.04**	-11.9%

Scope 02			
Indirect emissions from imported electricity	1,703.00	1961.62	-13.2%
Total Scope 02 Emission	**1,703.00**	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	-
Total Scope 03 Emission	**13,568.20**	**13970.06**	**-2.88%**
Total Emission	**23,431.21**	**25,194.72**	**-7.00%**
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.

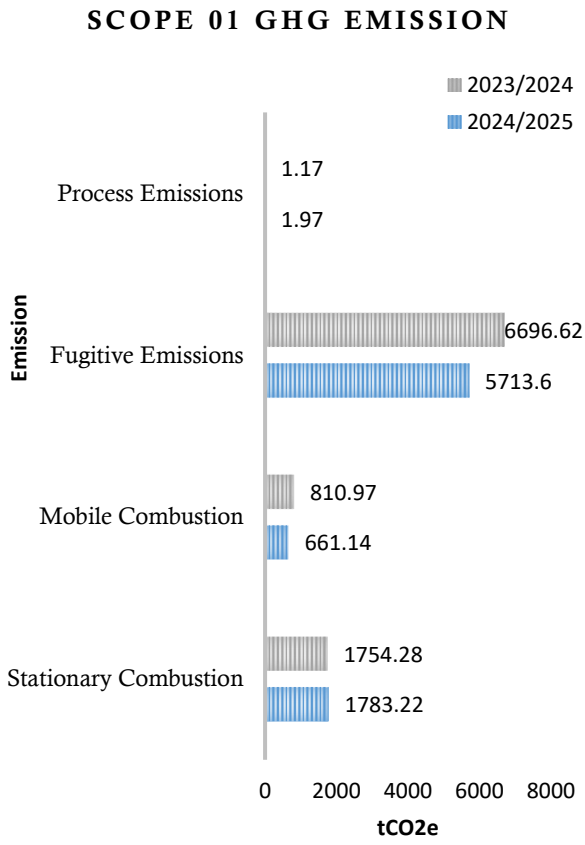


Figure 3: Scope 01 emission distribution

The figure 3 shows "Scope 01 GHG Emission" illustrates greenhouse gas emissions in metric tons of carbon dioxide equivalent (tCO2e) 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 tCO2e to 1.97 tCO2e. Fugitive Emissions dominate, dropping significantly from 6696.62 tCO2e to 5713.6 tCO2e. Mobile Combustion shows a moderate decline from 810.97 tCO2e to 661.14 tCO2e, while Stationary Combustion remains substantial, rising slightly from 1754.28 tCO2e to 1783.22 tCO2e. Overall, the data suggests a general reduction in emissions, particularly in Fugitive and Mobile Combustion categories, despite slight increases in Process and Stationary Combustion.

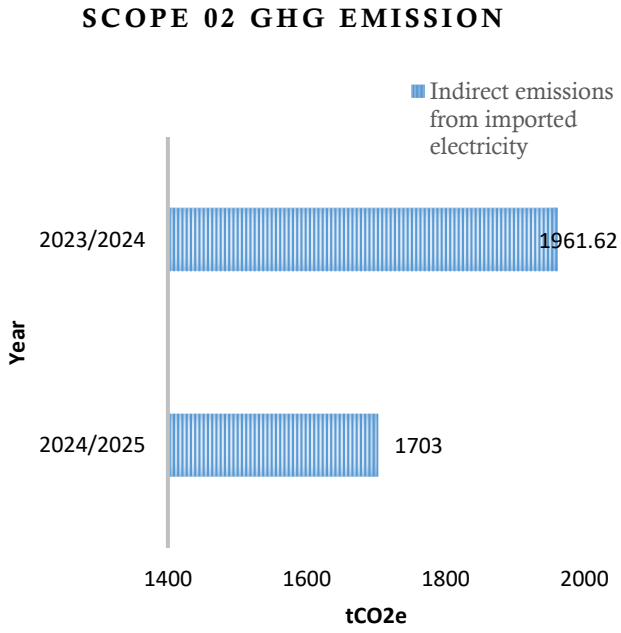


Figure 4: Scope 02 emission distribution

Figure 4 illustrates the trend in indirect emissions arising from imported electricity, expressed in metric tons of carbon dioxide equivalent (tCO_2e), 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_2e, representing a significant contribution to the organization's overall carbon footprint. By 2024/25, this figure decreased to 1,703 tCO_2e, marking a notable reduction of over 250 tCO_2e. 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

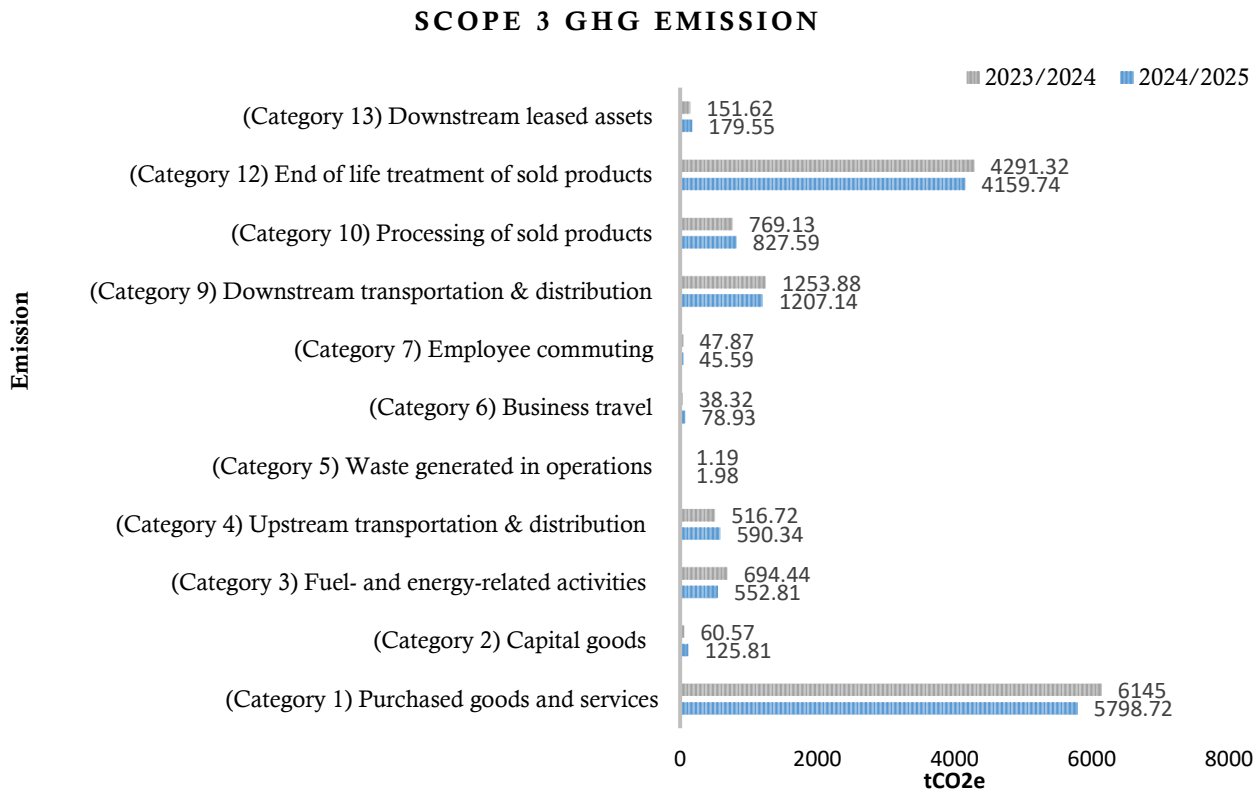


Figure 5: Scope 03 emission distribution

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 tCO2e to 5798.72 tCO2e and from 4291.32 tCO2e to 4159.74 tCO2e, respectively. Other notable categories include "Downstream transportation & distribution" and "Processing of sold products," with the former slightly decreasing and the later 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.

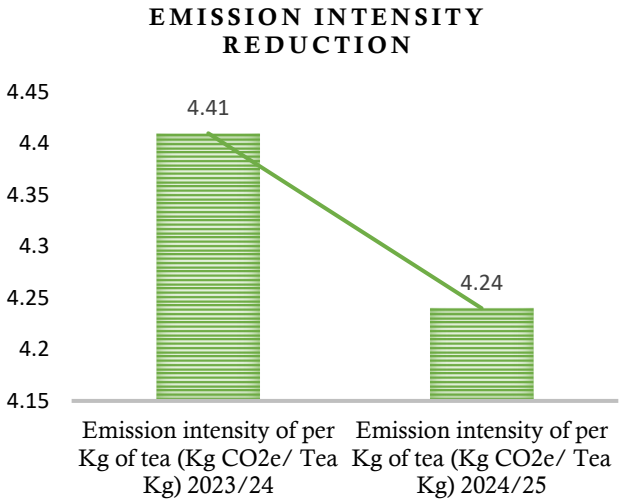


Figure 6: Emission intensity reduction

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_2e per kilogram of tea produced. This figure was successfully reduced to 4.24 kg CO_2e 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.

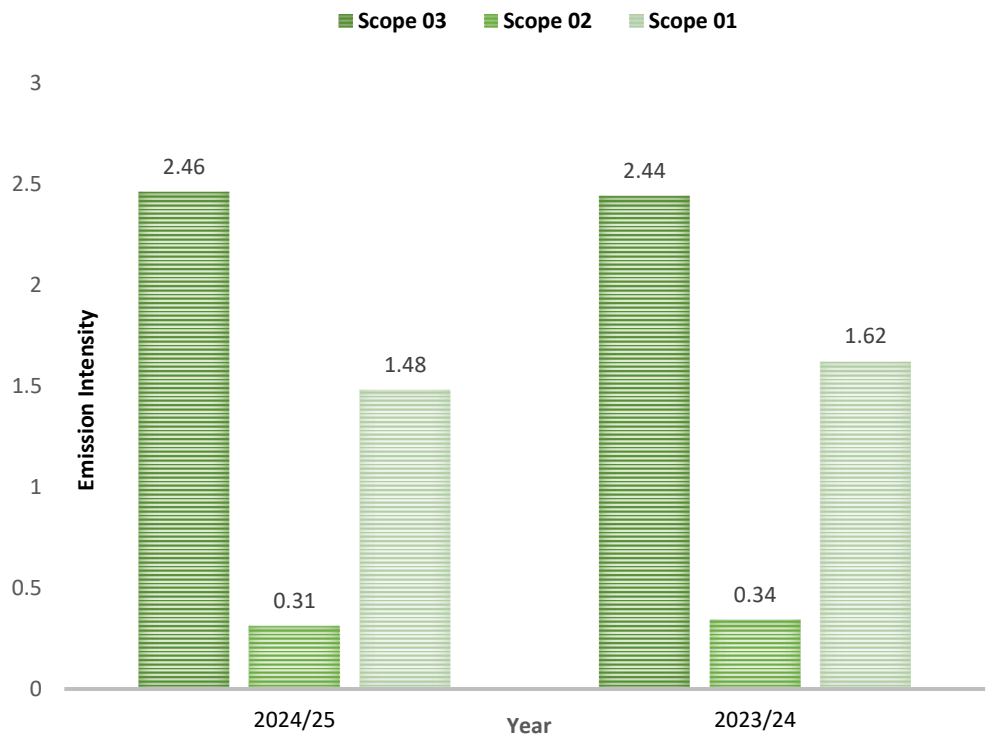


Figure 7: Emission reduction intensity by scope

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_2e	Total tCO_2e	
Scope 01			
Stationary Combustion			
Diesel for Generator	66.70	114.14	-41.6
LPG use	14.74	10.21	44.4
Biomass	1701.78	1672.79	1.7
Mobile Combustion			
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
Fugitive Emissions			
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
Process Emissions			
Mixed food & garden waste Composting/Anaerobic digestion	1.97	-	-
Total Scope 01	**8160.01**	**5570.98**	46.5
Scope 02			
Indirect emissions from imported electricity	1,703.00	2147.83	-20.7
Total Scope 02	**1,703.00**	2147.83	-20.7
Scope 03			
(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		-
Total Scope 03	**13,568.20**	**18578.99**	▼	-27.0
Total Emission	**23,431.21**	**26,297.80**	▼	-10.9

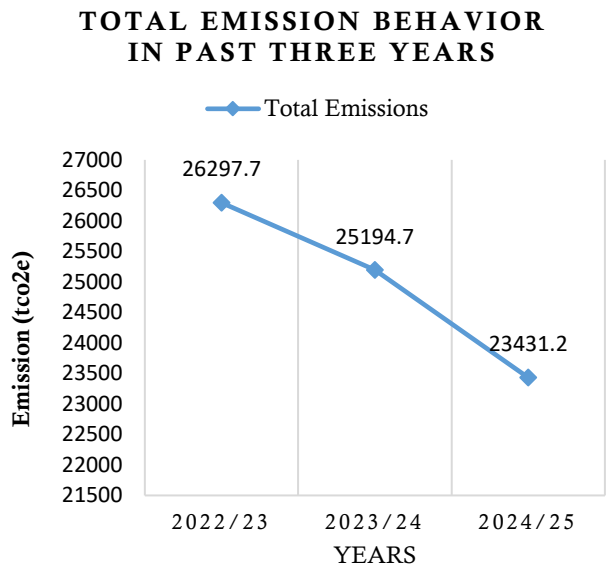


Figure 8: Total emission behaviour in past three year

The graph titled "Total Emission Behaviour in Past Years" is a line chart showing total emissions (in tCO2e) over three years, 2022/23, 2023/24, and 2024/25. Emissions started at 26,297.7 tCO2e in 2022/23, decreased to 25,194.7 tCO2e in 2023/24, and further dropped to 23,431.2 tCO2e 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.

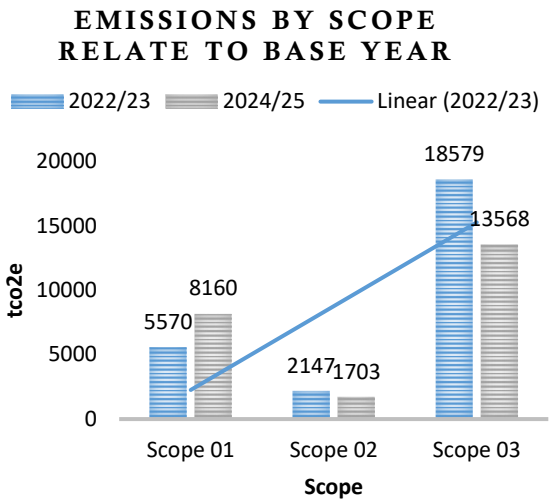


Figure 9: Emission by scope relate to base year

The figure shows "Emissions by Scope Relate to Base Year" illustrates the emissions (in tCO2e) 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 tCO2e for Scope 01, 2147 tCO2e for Scope 02, and 1,8579 tCO2e for Scope 03, while in 2024/25, 2590 tCO2e increase in scope 01 and 444 tCO2e reduction in scope 02 while scope 3 shows 5011 tCO2e emission reduction.

GHG Savings of the year 2024/2025

Table 4: GHG saving of the year 2024/2025

Item	Unit	tCO_2	tCH_4 (CO_2 Eq)	tN_2O (CO_2 Eq)	tHCFC/HFC (CO_2 Eq)	Total tCO_2
GHG saving from electricity (Hydro)	kWh	5452.72	-	-	-	5452.72
GHG saving from electricity (Solar)	kWh	405.97	-	-	-	405.97
Total GHG Saving	kgsCO2e	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_2e. These savings are exclusively attributed to the use of renewable electricity sources, with 5,452.72 tCO_2e saved through the utilization of hydropower and a further 405.97 tCO_2e through solar energy generation. Both sources have significantly contributed to reducing Scope 2 emissions, with no reported contributions from methane (CH_4), nitrous oxide (N_2O), 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.

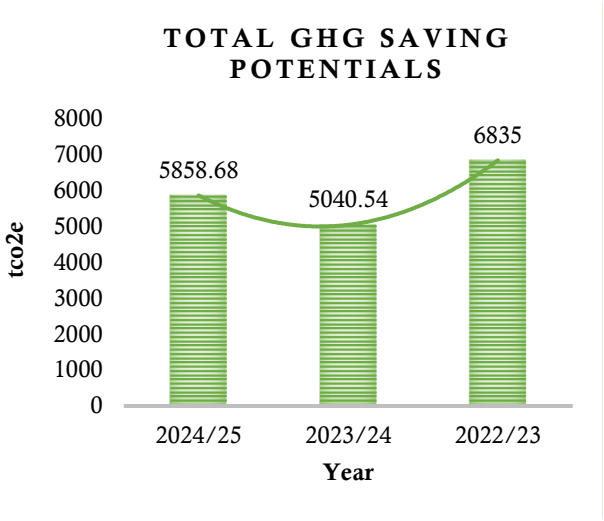


Figure 10: Total GHG saving potentials

The chart titled "Total GHG Saving" presents the annual greenhouse gas (GHG) savings, measured in tonnes of CO_2 equivalent (tCO_2e), 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_2e. This figure declined to 5,040.54 tCO_2e in 2023/24, However, in 2024/25, GHG savings increased to 5,858.68 tCO_2e, 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_2 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_2 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 Tea Estates PLCs	
2024/25	20735.32 tCO2e
2023/24	20389.33 tCO2e

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.

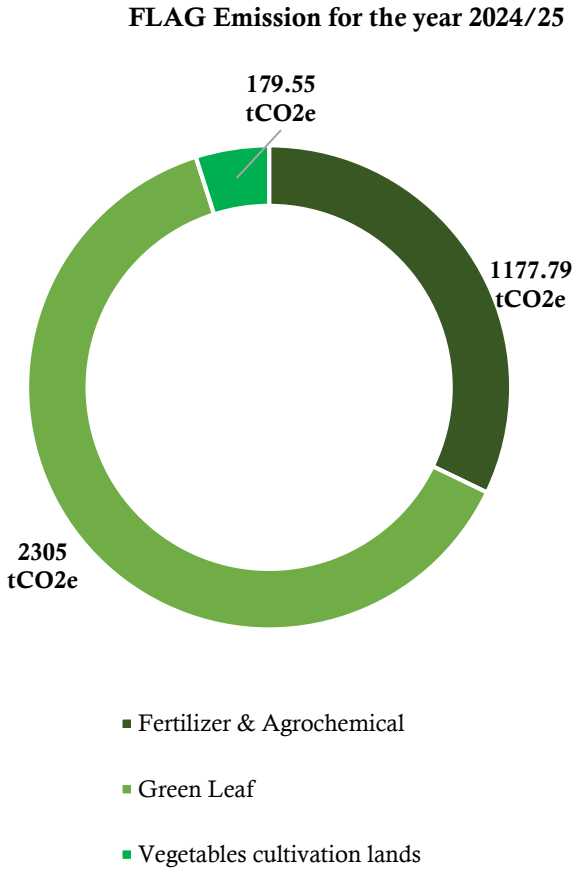


Figure 11: FLAG emission for the year 2024/2025

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.

SCIENCE BASED TARGETS

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

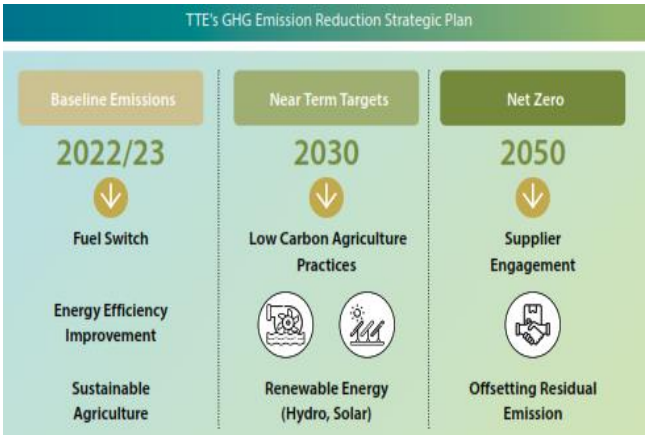
Solid Waste Management

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

Increase soil organic matter content by 10.5% by 2030

1.3% 2023	2.6% 2025	5.3% 2027	10.5% 2030

Achieved

Implement regenerative Agriculture practices by 100% of all estates by 2030

25% 2023	50Ha 2025	75% 2027	100% 2030

On Track

Increase the adoption of permaculture practices by 100% of estates by 2030

25% 2023	50% 2025	75% 2027	100% 2030

Lagging

Climate Action

Achieving net-zero greenhouse gas emissions by 2050

By 2023	18% 2025	42% 2030	90% 2050

Achieved

Reduce scope 1 and 3 FLAG GHG emissions 72% by 2050

By 2023	14% 2025	30.3% 2030	72% 2050

Achieved

Implementation climate adaptation plan with Scenario planning

70% 2023	80% 2025	90% 2027	100% 2030

Achieved

Circular resource management & Renewable Energy

Increase soil organic matter conten 10.5% by 2030

80% 2023	85% 2025	95% 2027

Achieved

Increase the percentage of sustaina input materials in operations by 80 by 2030

40% 2023	50% 2025	60% 2027

Lagging

Implement a closed-loop supply ch for 75% of the organization's supply chain

35% 2023	45% 2025	65% 2027

Lagging

Water Stewardship

Achieve a 30% reduction in water consumption by 2030

5% 2023	15% 2025	20% 2027	30% 2030

On Track

Improve water quality by reducing the discharge of pollutants water bodies by 100%

80% 2023	85% 2025	95% 2027	99% 2030

Achieved

Implement watershed management strategies in 100% in all estate by 2030

70% 2023	80% 2025	90% 2027	100% 2030

Achieved

Biodiversity conservation and ecosystem restoration

Implement a digitally smart ecosystem monitoring program by 2030

1 Phase 2023	2 Phase 2025	3 Phase 2027	4 Phase 2030

On Track

Implementation biodiversity action plan across all estates' operations by 2030

25Ha 2023	50Ha 2025	75Ha 2027	100Ha 2030

Achieved

Implementation biodiversity action plan across all estates' operations by 2030

1 Phase 2023	2 Phase 2025	3 Phase 2027	4 Phase 2030

Achieved

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_2 equivalent
Indirect GHG Emissions	: 15,271 tonnes of CO_2 equivalent
Total GHG Emissions	**: 23,432 tonnes of CO_2 equivalent**

****Scope 1** Direct GHG Emissions	: 8,161 tonnes of CO_2 equivalent
Scope 2 Electricity Indirect GHG Emissions	: 1,703 tonnes of CO_2 equivalent
Scope 3 Other Indirect GHG Emissions	: 13,569 tonnes of CO_2 equivalent

ISO 14065
GHG 001-01

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	https://www.energy.gov.lk/images/energy-balance/energy-balance-2022.pdf page: 99
Electricity Conversion & Transmission Losses	https://ceb.lk/front_img/img_reports/1719383943Statistical_Digest_2023_n.pdf
Electricity (Hydro) Generated	https://www.energy.gov.lk/images/energy-balance/energy-balance-2021.pdf 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	https://www.climatechange.lk/Documents/A_Guide_for_Carbon_Footprint_Assessment.pdf
Water treatment	
Non-Fossil CH4	2006 IPCC AR6 (IPCC's Sixth Assessment Report (AR 6)

Glossary

CEB – Ceylon Electricity Board

CFP – Carbon Footprint

CH4 – Methane

CO2 – 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

N2O – Nitrous Oxide

NWSDB – National Water Supply & Drainage Board

Pvt – Private

SEA – Sri Lanka Sustainable Energy Authority

SLCF – Sri Lanka Climate Fund

tCO2e – 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