



Talin GHG Emission Report 2023

Table of Contents

02

Introduction

10

Quantification
of GHG Emissions

04

Carbon
Disclosure
Project (CDP)

11

Emissions Analysis

06

GHG
Emissions
Inventory

12

Conclusion

07

Inventory
Boundaries



Introduction

About Talin

Talin Modular Office Furniture Systems Pvt Ltd is a leading office furniture manufacturing company that was established in 1998 in Karnataka, India. We have been servicing and participating in the growth of the Indian IT industry. Over the years, We have gained extensive experience and expertise in the design, manufacture, and installation of office furniture, and have emerged as a trusted partner for companies looking to create functional and inspiring workspaces.

We have a team of over 300 professionals who are committed to delivering high-quality and innovative furniture solutions to their clients. The team comprises of talented designers and skilled craftsmen who work together to create furniture that is not only functional but also aesthetically pleasing.

Our current facility is equipped with state-of-the-art machinery and equipment that enable us to produce furniture that can seat 10,000 office goers each month. The facility is designed to ensure that the furniture produced is of the highest quality and meets the diverse needs of their clients.

Our extensive experience, skilled team, and state-of-the-art facility make us a trusted partner for businesses looking to create inspiring workspaces that promote productivity and collaboration.

At Talin, we recognize that climate change is one of the most significant challenges facing our planet, and we are committed to taking action to address it. As a furniture manufacturing company, we understand the critical role that our operations play in contributing to climate change, and we are committed to promoting climate action through our business practices.

Our climate change initiative is focused on achieving a carbon-neutral status by 2040, reflecting our commitment to reducing greenhouse gas emissions and mitigating the impact of climate change.

About this report

This report quantifies the Greenhouse Gas (GHG) emissions of Talin during the period of April 2022 and March 2023. This report is prepared as per the standards of the 'Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)' developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).

The report presented by Talin only includes scope 1 and scope 2 emissions within the set inventory boundary. The company plans to expand its GHG emissions reporting in future reports by including scope 3 emissions which will provide a more comprehensive understanding of the company's carbon footprint by including indirect emissions from the company's value chain.



Climate Change

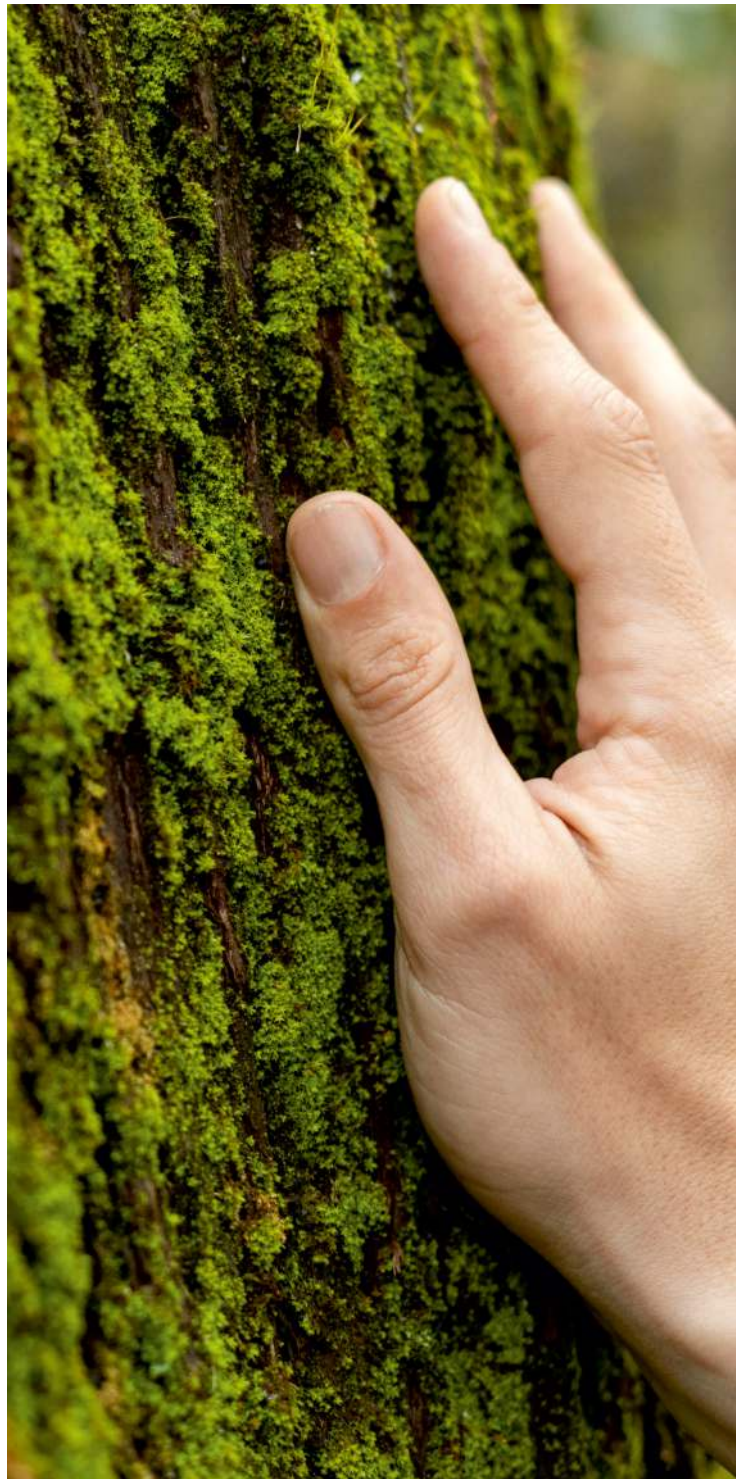
Climate change is a global issue that is having far-reaching impacts on the environment, society, and the economy. The earth's temperature has risen by approximately 1°C above pre-industrial levels, and the current trajectory suggests that global temperatures will continue to rise unless action is taken to reduce greenhouse gas (GHG) emissions.

GHGs are gases that trap heat in the earth's atmosphere and contribute to the warming of the planet. These gases include carbon dioxide (CO₂), methane, nitrous oxide, and fluorinated gases. The main human activities that are responsible for the increase in GHG emissions are the burning of fossil fuels for energy, deforestation, and land-use changes.

Climate change is already having significant impacts, including more frequent and severe weather events such as heatwaves, droughts, wildfires, and flooding. These events have consequences for agriculture, infrastructure, and human health. Rising sea levels and ocean acidification also pose a threat to coastal communities, ecosystems, and biodiversity.

The impacts of climate change are not limited to the environment. Businesses, governments, and communities are also affected by climate change through supply chain disruptions, changes in consumer behavior, and increased costs associated with adapting to climate change.

To mitigate the impacts of climate change, it is essential to reduce GHG emissions. This can be achieved through a combination of strategies, including transitioning to renewable energy sources, increasing energy efficiency, reducing waste, and implementing sustainable land-use practices. By reducing GHG emissions, we can slow the rate of global warming and limit the severity of the impacts of climate change.



Carbon Disclosure Project (CDP)

The Carbon Disclosure Project (CDP) is a global environmental disclosure system that encourages businesses, cities, states, and regions to measure and disclose their environmental impact, particularly on climate change. The CDP provides a platform for companies to report their greenhouse gas (GHG) emissions, water management, and forest management practices to investors and other stakeholders.

The CDP was founded in 2000 and is a non-profit organization headquartered in London. It works with investors, companies, and cities to motivate them to reduce their environmental impact and become more sustainable.

The CDP collects environmental data from companies around the world and publishes it in a publicly available database. Investors, customers, and other stakeholders can use this information to make informed decisions about the companies they work with, invest in or purchase from.

The CDP operates on a voluntary basis and works with more than 9,600 companies

globally. The organization provides guidance and support to companies in measuring and reporting their environmental impact, and it also provides analysis and insights on global environmental trends.

Talin has previously reported its GHG emissions for FY22 to CDP through the Climate Change 2022 questionnaire and received a **‘D’ score** which indicates that Talin has taken a step towards its sustainability journey through its environmental disclosure. Talin is committed towards improving its CDP score through its continual improvement of its sustainability disclosure.

Risks and Opportunities

Talin realizes the importance of addressing climate change and The potential risks and opportunities associated with climate change have become increasingly evident and have a significant impact on the growth and operations of the business. As such, Talin has identified the following risks and opportunities related to climate change that are crucial to its long-term success:

Risks

- 1. Regulatory Risks:** GHG emissions regulations are becoming increasingly stringent in many regions around the world, and organizations that do not comply with these regulations may face legal, financial, and reputational risks.
- 2. Physical Risks:** Climate change can lead to physical risks such as extreme weather events, sea level rise, and natural disasters that can disrupt operations and supply chains, damage assets, and harm employees and communities.
- 3. Reputational Risks:** Stakeholders, including customers, investors, and employees, are increasingly concerned about the environmental impact of organizations, and negative publicity related to GHG emissions can damage an organization's reputation and brand.
- 4. Supply Chain Risks:** Organizations with significant GHG emissions in their supply chain may face risks related to supplier reliability, operational disruptions, and reputational damage.

Opportunities

- 1. Cost Savings:** Reducing GHG emissions can lead to cost savings through improved energy efficiency, reduced waste, and streamlined operations.
- 2. Innovation:** Developing and implementing new technologies and processes to reduce GHG emissions can drive innovation and create new business opportunities.
- 3. Competitive Advantage:** Organizations that are leaders in reducing GHG emissions can differentiate themselves from competitors and attract customers and investors who value sustainability.

- 4. Compliance:** Meeting and exceeding regulatory requirements related to GHG emissions can demonstrate an organization's commitment to sustainability and compliance.
- 5. Stakeholder Engagement:** Demonstrating a commitment to reducing GHG emissions can enhance stakeholder trust and engagement, leading to stronger relationships with customers, investors, and employees.

Overall, addressing GHG emissions risks and embracing opportunities can benefit organizations in many ways, including cost savings, innovation, competitive advantage, compliance, and stakeholder engagement. By assessing and managing GHG emissions risks and pursuing opportunities, Talin can create value for themselves and contribute to a more sustainable future.



GHG Emissions Inventory

A greenhouse gas (GHG) emissions inventory is a comprehensive record of the amount of GHG emissions produced by a company over a specified time period, typically a year. The inventory includes all sources of GHG emissions within the entity's operational boundaries, such as direct emissions from fuel combustion and indirect emissions from purchased electricity.

The purpose of creating a GHG emissions inventory is to measure and track the company's carbon footprint, which is the total amount of GHG emissions produced as a result of its operations. By doing so, companies can identify areas of high emissions and develop strategies to reduce their environmental impact and improve their sustainability.

The GHG emissions inventory typically includes the following steps:

- Identifying the operational boundaries of the entity, such as facilities, vehicles, and other sources of emissions
- Collecting data on the types and amounts of fuels and energy used by the entity, as well as the amount of waste generated
- Calculating the emissions associated with each source of fuel or energy, using factors such as the carbon content of the fuel and the efficiency of the combustion process
- Summing the emissions from each source to obtain a total GHG emissions inventory for the company

A GHG emissions inventory can be used as a baseline for setting emissions reduction targets, tracking progress towards those targets, and reporting on the entity's environmental performance to stakeholders. Many organizations, including corporations, cities, and governments, voluntarily create and report on their GHG emissions inventories as part of their sustainability and climate action plans.

Talin has already set up its emission inventory during FY22.

669.32 tCO₂e

GHG emissions released in FY22 (baseline)

0.115 tCO₂e/Lakh rupees

Emission intensity of Talin in FY22 (baseline)

Inventory Boundaries

Emission inventory boundaries define the scope and extent of an organization's GHG emissions inventory. The inventory boundaries are defined based on the organizational structure, operational activities, and other relevant factors that influence the organization's GHG emissions.

Talin utilizes the operational control methodology to recognize and quantify its GHG emissions. This approach prioritizes emissions that fall within their operational purview, enabling them to define the extent of their responsibility and accountability for the associated emissions.

Organizational boundary

The organizational boundary refers to the scope of an organization's control or influence over its operational activities and the associated GHG emissions.

Talin's GHG inventory boundary encompasses two manufacturing facilities that have been recognized as substantial sources of GHG emissions. These facilities are included in the inventory boundary to facilitate accurate measurement and reporting of GHG emissions.

The facilities included are listed below:

S. No	Location	Facility
1	HBR	Manufacturing facility and Corporate Office
2	Malur	Manufacturing facility

Operational boundary

The operational boundary for GHG emissions refers to the extent of control and responsibility that an organization has over its emissions. It includes all the activities, processes, and facilities that are owned or controlled by the organization and contribute to its GHG emissions. An operational boundary is established to help organizations identify the sources of their emissions and categorize them into different scopes.

This can help organizations develop more effective GHG reduction strategies by prioritizing emissions from specific sources. It can also provide a framework for measuring and reporting GHG emissions accurately, which is essential for developing and implementing effective climate action plans.

Scope 1 emissions: These are direct emissions that come from sources that are owned or controlled by the organization.

Scope 2 emissions: These are indirect emissions that come from the consumption of purchased electricity, heat, or steam.

Scope 3 emissions: These are indirect emissions that come from sources outside of the organization's control, but are related to their activities.

S. No	Scope	Emission type	Source
1	Scope 1	Direct - Mobile	Company owned vehicles
2	Scope 1	Direct - Mobile	Forklifts
3	Scope 1	Direct - Stationary	Diesel Generators
4	Scope 1	Direct - Stationary	Powder coating ovens
5	Scope 2	Indirect	Purchased electricity

Methodology

The process of quantifying greenhouse gas (GHG) emissions involves collecting data activity and applying recognized emission factors for the activity data. There are two calculation-based methodologies used for quantification, depending on the type of emission source.

- For emission sources that involve a chemical transformation process (such as combustion in fixed or mobile sources) and indirect emissions from electricity consumption

CO₂ emissions (tCO₂e) = Activity data x Emission factor

- For emission sources that do not involve a chemical transformation process (known as fugitive emissions), or if the emissions result in greenhouse gases other than CO₂, they are converted to tons of CO₂e using Global Warming Potential (GWP) values provided by the IPCC.

CO₂ emission (tCO₂e) = Activity data x Global warming potential (GWP)

Data collection

The process of collecting data from each emission source in all facilities is an important step in accurately calculating emissions. Once collected, the activity data is carefully validated to ensure its accuracy before being documented into the emissions calculation process. If any inconsistencies in the data are detected, the concerned person is informed and steps are taken to rectify the issue. This process ensures that the emissions calculations are as precise and reliable as possible, which is essential for maintaining compliance with environmental regulations and reducing the impact of emissions on the environment.

Emission factor identification

To accurately calculate greenhouse gas (GHG) emissions, it is essential to identify and incorporate appropriate emission factors into the emission calculation. For Scope 1 emissions of Featherlite, the emission factors were derived from the Fifth Assessment Report (AR5) 2014 of the Intergovernmental Panel on Climate Change (IPCC). The IPCC is a leading international organization that

provides scientific research and guidance on climate change. Their emission factors are widely recognized as the standard for calculating GHG emissions.

For Scope 2 emissions, the emission factor used is derived from the CO₂ Baseline Database (Version 18) of the Central Electricity Authority (CEA), Government of India. This database provides standardized and reliable data on CO₂ emissions from the Indian electricity sector, which is a major contributor to GHG emissions. By using these recognized and reliable emission factors, organizations can accurately calculate their GHG emissions and take effective steps to reduce their impact on the environment.



Quantification of GHG Emissions

Quantification of GHG emissions is the process of measuring and calculating the amount of greenhouse gases that are emitted by an organization. This is an important step in understanding the carbon footprint of an organization and identifying opportunities to reduce emissions.

The quantification of GHG emissions involves the following process:

1. Identifying sources of emissions: The first step in quantifying GHG emissions is to identify the sources of emissions within an organization's operations. This includes both direct (Scope 1) and indirect (Scope 2 and Scope 3) emissions.
2. Gathering data: Once emissions sources have been identified, data needs to be collected to quantify the emissions. This may involve measuring fuel consumption, electricity usage, or other relevant data points.
3. Calculating emissions: Once data has been gathered, it can be used to calculate emissions. This involves using standardized emission factors to convert data into CO₂e (carbon dioxide equivalent) emissions.
4. Reporting emissions: Once emissions have been calculated, they can be reported in a GHG emissions inventory. This report provides an overview of the organization's carbon footprint and allows them to track progress over time as they work to reduce emissions.

Identifying emission factors for different sources is essential for emission calculation. For Scope 1 emissions, the emission factors were derived from the Fifth Assessment Report (AR5) 2014 of the Intergovernmental Panel on Climate Change (IPCC). For Scope 2 emissions, the emission factor was derived from the CO₂ Baseline Database (Version 18) of the Central Electricity Authority (CEA), Government of India.

Total GHG Emissions - Location based (tCO₂e)

Location	FY22	FY23
Scope 1 emissions		
HBR	141.32	78.13
Malur	84.13	75.01
Scope 1 Emissions	225.45	153.14
Scope 2 emissions		
HBR	255.67	357.78
Malur	188.2	253.39
Scope 2 Emissions	443.87	611.17
Total GHG Emissions	669.32	764.31

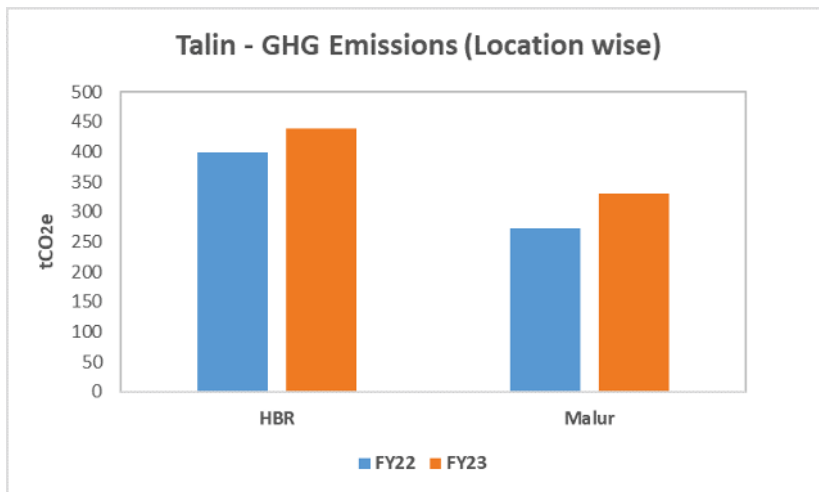
Emission Analysis

A comparative analysis of emission trends for a company involves analyzing the changes in greenhouse gas emissions over time for that specific company. This analysis can be used to identify opportunities to reduce emissions, improve sustainability, and potentially save costs.

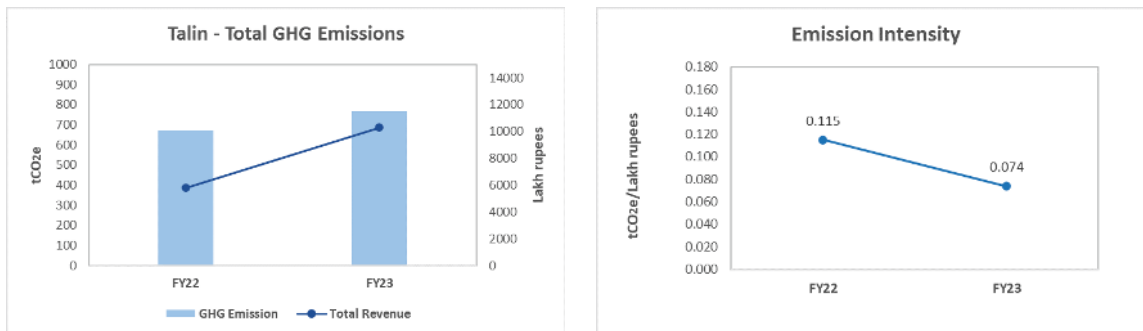
The primary indicator of emission trend is the emission intensity and it is calculated as follows.

Emission Intensity = Total GHG emissions / No. of lakh rupees

The graph shows the GHG emissions from the facilities of Talin For FY22 and FY23



The graph shows the emission intensity of Talin for FY22 and FY23



The decline in the emission intensity shows that Talin has significantly reduced its GHG emissions compared to its total revenue. By continuing to prioritize emissions reduction and sustainable practices, Talin can position itself for long-term success and contribute to global efforts to address climate change.

764.31 tCO₂e

GHG emissions released in FY23

0.074 tCO₂e/Lakh rupees

Emission intensity of Talin in FY23

36% reduction

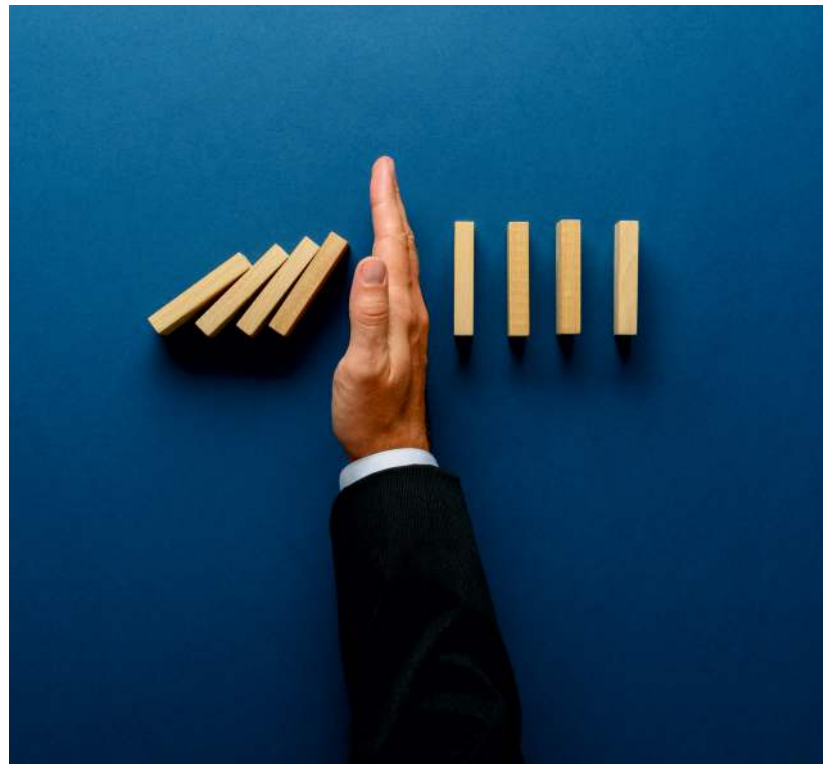
Emissions intensity over FY22

Conclusion

This GHG emissions report provides valuable insights into the environmental impact of Talin and its efforts to reduce its carbon footprint. Through the analysis of GHG emissions data, it is clear that Talin has made progress in reducing its emissions intensity and overall greenhouse gas emissions.

The report highlights several initiatives that Talin has implemented to reduce its carbon footprint, including improving energy efficiency, transitioning to renewable energy sources, optimizing transportation and logistics, reducing waste, and promoting sustainable practices in the supply chain. These efforts demonstrate the Talin's commitment to sustainability and environmental stewardship.

However, there is still room for improvement, and the report identifies several areas where Talin can further reduce its emissions, such as through increased use of renewable energy sources and continued optimization of transportation and logistics. The report also underscores the importance of setting and achieving emissions reduction targets to drive continuous improvement.





Talin Modular Office Furniture Systems Pvt Ltd
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