# Multivista Global Print Solutions

## CARBON FOOTPRINT

GHG Inventory Report Apr 2023 – Mar 2024







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## 1. FOREWORD: CARBON FOOTPRINT & GHG PROTOCOL

#### 1.1 CARBON FOOTPRINT

The carbon footprint is a parameter that represents the total emissions of CO2 and other greenhouse gases (GHG), expressed in mass of CO2 equivalent, caused directly or indirectly by a product, organisation, service, or event throughout its life cycle. The carbon footprint is important to try to quantify the main emission sources and to have a complete picture of the impact of an organisation on climate change. It is also the first step to carry out a plan to reduce GHG emissions.

The carbon footprint of an organisation intends to quantify the GHG emissions implied by the activity flows of an interconnected entity or group of entities, which may be under its responsibility or on which it depends, over a period of one year with an expressed result in tonnes of CO2 equivalent (CO2e).

The calculation of the carbon footprint is more than GHG emissions data, it allows to identify the main GHG emission sources of an organisation and to have a global image of its impact on climate change. Furthermore, it constitutes a necessary base to address and continue over time actions to reduce this impact. Therefore, although the calculation of the carbon footprint by an organisation is voluntary, its assessment has an important strategic aspect and involves a large number of environmental, economic, and reputational benefits:

- Knowledge about the environmental impact of an organisation and its contribution to climate change is enriched.
- It allows to know and identify the energy consumption and the main GHG emission sources of an organisation, which is a point of reference to design strategies aimed at a better management of the energy used and to prioritise reduction actions with the application of more efficient techniques.
- It allows to identify the company's activities with a greater potential for reducing GHG emissions and to set specific objectives for them.
- It facilitates the assessment of the choice of raw materials, selection of suppliers, manufacturing methods and production options according to their associated GHG emissions.
- It favours the application of more efficient techniques in different activities, thus assuming cost savings.
- It is an advance to future regulations and policies on climate change. A clear example is that the EU is already working on how to introduce the calculation of the carbon footprint in the green public procurement.
- It means more transparent communication about the company's commitments to sustainable development and, more specifically, the reduction of GHG.



To achieve these objectives, it is necessary to work with the greatest accuracy, covering the maximum possible quantity of emissions for which the organisation is responsible.

Conducting an inventory of greenhouse gas emissions is an important first step a company can take towards developing an effective response to climate change. A greenhouse gas inventory provides valuable information on the risks and opportunities of operating in a carbon constrained economy. At a strategic level, greenhouse gas emissions may be relevant to a company's "license to operate", competitive environment, "carbon risk", and issues of corporate social responsibility. At an operational level, greenhouse gas emissions information may be relevant to decisions on what products to make, what materials and technologies to use, and from where to source energy.

The Greenhouse Gas Protocol, a broad collaboration of businesses, NGO's, governments, and others, was convened by the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI). It represents a voluntary international standard for accounting and reporting greenhouse gas emissions that will enable businesses to report information from global operations in a way that presents a clear picture of GHG risks and reduction opportunities, while facilitating understanding and comparison with similar reports.

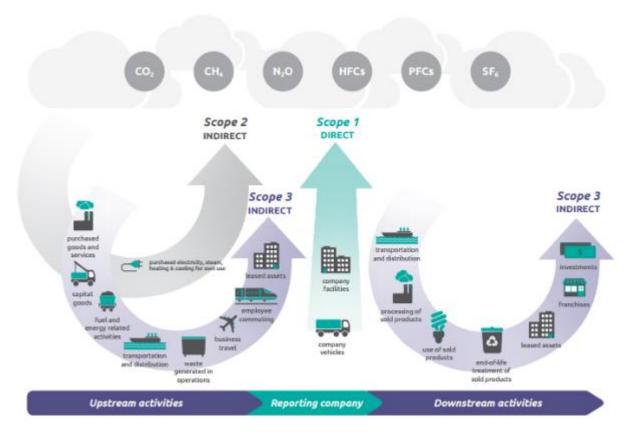
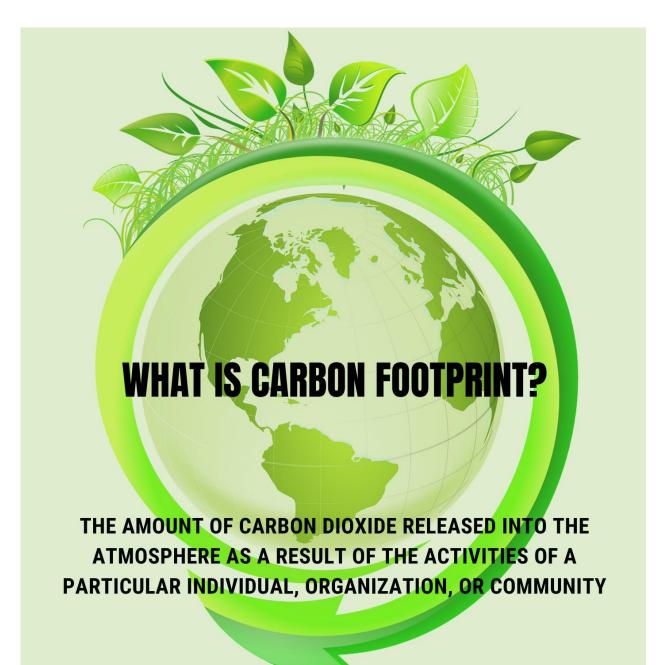


Figure 1: GHG Emissions





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#### 1.2 GHG PROTOCOL

The Greenhouse Gas Protocol has established a set of guidelines to adhere to in the pursuit of mitigating greenhouse gas (GHG) emissions. The guidelines developed by this organisation are widely utilised globally for carbon accounting purposes in various frameworks such as CDP and other Environmental, Social, and Governance (ESG) frameworks.

The GHG protocol was formulated in the late 1990s by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Its inception coincided with the initial stages of global endeavours to tackle climate change. Currently, it provides a set of broadly acknowledged criteria for quantifying and disclosing levels of greenhouse gas emissions.

The standards of this framework are employed by governmental bodies, municipalities, corporations, and institutions to convert their operations into measurable inventories of carbon dioxide and other emissions data.

GHG Protocol Corporate Standard establishes a process for quantifying GHG emissions for the inventory. The first steps of this process are identification of specific emission sources within the operational boundaries as well as selection of an emissions quantification methodology applicable for the sources identified.

The next steps are the collection of data required by the methodology for the source and the identification of established emission factors for the data collected. Finally, the data and the emission factors, applied consistent with the quantification methodology, are used to quantify emissions from individual emission sources. The emissions quantified for each source are then consolidated with the other sources within the operational boundaries but ensuring that direct and indirect sources are kept separate.

The Greenhouse Gas Protocol is the main global standard for public and private sector entities to measure emissions. Its standards apply to operations, value chains, and climate change mitigation actions. The purpose of this is twofold: It helps us track and monitor emissions for individual entities and supports greenhouse gas reductions by helping companies identify the most effective ways to reduce their climate impact.

The GHG Corporate Standard and Value Chain Standards are the two most useful standards corporations can use. The Corporate Standard helps companies measure and keep GHG inventories of their operations, while the Value Chain Standard helps them undergo carbon accounting across their value chain.

The GHG Corporate Accounting and Reporting Standard provides the guidance for GHG accounting principles, inventory scopes, GHG emissions sources, setting a base year, and periodically tracking and monitoring emissions. This report is prepared in accordance with GHG Corporate Accounting & Reporting standard.



## 2 INTRODUCTION

#### 2.1 ABOUT THE REPORT

This Carbon footprint assessment report describes Multivista Global Print Solutions — MVGP's GHG emissions inventory in the financial year 2023-2024 covering its operations in India which is created in accordance with the GHG protocol corporate reporting standard. The report aims to improve the sustainability performance of MVGP by representing an accurate evaluation of the GHG emissions related to organization's activities and facilities. Evaluating principle GHG emissions sources will further aid in finding ways to reduce them significantly

## 2.2 REPORTING PERIOD (Base year and Reporting year)

The GHG emissions inventory described in this report covers MVGP's GHG Emissions for the base year FY 2019, FY 2022 and current reporting year FY 2023.

#### 2.3 BASE YEAR GHG INVENTORY

The baseline GHG inventory is considered as the previous reporting year FY 2019.

In case of any changes to the operational boundary or change in ownership and control of GHG sources or sinks (transferred into or out of the organizational boundary) the base year GHG emissions and GHG removals will be recalculated based on the methodologies and tools used in preparing this GHG Inventory.

Furthermore, if there are any changes to quantification methodologies that results in significant changes to quantified GHG emissions or removals the base year GHG Inventory will be calculated based on the latest revised version of the calculation methodology.

#### 2.4 ABOUT THE ORGANIZATION

Multivista Global Print Solutions is a leading Printing house in India, equipped with latest, state of the art Printing and Binding machines. They specialize in the art of printing and manufacturing educational books

Started in 1974 as a modest letterpress unit, over the years, they have grown into a fully integrated print house with a host of single, two and four color machines. Currently Multivista boasts of highly sophisticated Heidelberg and Ryobi printing machines and Muller Martini and Kolbus online binding machines.

Over the years they have become the preferred print house for various domestic and international clients primarily because:

• Multivista believes in investing in state of the art machinery.



- Multivista sources reliable and high-quality raw materials.
- Multivista employs skilled, efficient and technically qualified workforce.

This has not only improved their reliability but has also enhanced their capability to produce high quality books.

Multivista Global Print House is located in Chennai very close to a Sea and Airport. This not only gives the publisher the flexibility and choice for the mode of transport but also translates into quicker delivery of goods to destinations and is economical in terms of freight costs.

Their success is attributed mainly to the flexibility with which they adapt to different kinds of jobs. They specialize in the niche market of educational books and cater to large publications. Multivista has committed to developing a science-based emission reduction target within the timeframe and in accordance with the SBTi commitment's criteria by signing it as the first Indian Printing Press to do so in 2021.

## 3 CARBON ACCOUNTING

Carbon Accounting can be considered as the key tool in the efforts to combat climate change. It not only provides ways to quantify carbon emissions but also helps us take informed decisions with respect to GHG mitigation strategies. In order to measure carbon emissions from its business activities, organizations calculate its carbon footprint annually or create quantified GHG inventory.

Each organization's GHG emissions profile encompasses a range of emission sources, each having different levels of impact or Global Warming Potential (GWP).

Carbon Accounting can be categorized into two types:

- Physical Carbon Accounting
- Financial Carbon Accounting

Physical Carbon Accounting is also called GHG inventory. It allows companies to calculate its GHG emissions that they are emitting into the atmosphere. Whereas financial carbon accounting gives a market value for carbon.

#### 3.1 METHODOLOGY USED

IPCC and GHG protocol are some of the common methodologies used for calculating carbon emissions. GHG protocol provides calculation tools for accurate measurements of carbon emissions. Hence, this report is made in accordance with GHG protocol Corporate Accounting and Reporting standard for calculations. The methodology can be summarized as follows:

- Identification of emission sources
- Collection of GHG activity data



- Selection of emissions factors
- Selection of quantification methodology
- Calculation of Greenhouse gas emissions

#### 3.2 CARBON ACCOUNTING STANDARDS

Most widely recognized international standards for carbon accounting is GHG protocol, ISO 14064-1:2018. The ISO standard framework helps organizations by providing a methodology on how to account emissions and identify carbon baseline values. For developing a GHG inventory for organizations, it requires three important aspects such as setting inventory boundaries, quantifying, and reporting GHGs.

GHG Corporate Standard guides organizations in identifying specific emissions sources within the operational boundaries as well as provides methodologies to quantify those emissions.

### 4 BOUNDARIES

#### 4.1 ORGANIZATIONAL BOUNDARIES

Location: Multivista Global Print Solutions (MVGP) located at 43, Vandalur Kelambakkam Road, Pudupakkam, Chennai - 603 103

In accordance with the GHG Protocol – Corporate Standard for setting the scope and boundary of the organisation, MVGP's Pudupakkam site has been considered for carbon accounting. MVGP's Scope 1 and Scope 2 emissions from all its operations are accounted.

Reporting Period:

Base Year: Apr 19 - Mar 2020

Current Reporting Year: Apr 2023 - Mar 2024

#### 4.2 OPERATIONAL BOUNDARIES

MVGP has confirmed and documented its operational boundaries and has identified the GHG emissions from its operations and removals associated with the company.

Operational boundaries are defined in three different scopes:

**Scope 1 emissions** include all direct CO2 emissions emitted from its operational activities. These emissions include sources owned or controlled by MVGP such as energy and fuel consumption and other emissions in the form of refrigerant.



**Scope 2 emissions** include energy indirect emissions emitted from the consumption of purchased electricity by MVGP. This emission occurs at the source where electricity is produced.

**Scope 3 emissions** includes emissions from purchased goods, capital equipment, business travel, employee commute, upstream and downstream transportation and distribution.

## 5 DATA COLLECTION AND QUANTIFICATION METHODOLOGIES

#### 5.1 COLLECTION AND MONITORING METHODOLOGY

Activity data is collected at the site level by the facility management team and consolidated by management team. Although currently there is no automated data collection system in place, data is accurately collected every month for better management of scope wise emissions.

MVGP facility management constantly explores several ways to collect and aggregate data using existing processes and infrastructure. For instance, energy consumption data is monitored and collected manually to ensure there is no leakage.

Below are the sources used to collect data

- Interval meter information
- Utility invoices (at Group level, sub meter information is used for MVGP information)
- Bills (Electricity, Diesel, Fuel)

#### 5.2 GHG EMISSION ACTIVITY DATA SOURCES

Table 1: GHG Emission Activity Data Sources

Description	GHG Activity Data is based on
<b>Direct GHG Emissions - Diesel Consumption</b>	Bills/Invoice/Meter Information
for Diesel for DG, CO <sub>2</sub> consumption for Fire	
extinguishers.	
Indirect GHG Emissions - Purchased	Bills/Invoice/Meter Information as applicable
Electricity	
Scope 3 emissions - Emissions from	Bills/Invoice.
purchased goods and services, capital	
goods, upstream and downstream	
transportation, waste disposal and business	
commute, employee commute	



#### 5.3 GHG SOURCES AND GHG INFORMATION MANAGEMENT TEAM

There is a team appointed by management for maintaining data and corresponding evidence for GHG emission sources. Mainly Environmental, Health & Safety, Utility & admin team is responsible for data collection in the organization with help of support functions for data collection and validation.

#### 5.4 ASSUMPTIONS

For all emission sources an emission factors were identified as per India GHG Protocol & Defra 2023 emission factors, USEEIO database and CEA database.

#### 5.5 FREQUENCY OF REPORT

The GHG Inventory report is prepared annually since the base reporting year FY 2019.

#### 5.6 UNCERTAINTY OF ASSESSMENT

The data for GHG emissions from MVGP has been derived directly from electricity, logbook/invoices/meter information of DG & Electricity Board, purchase records, commute bills/registers/invoices and MIS records and then conversion factors are employed to convert into GHG reporting metrics. The uncertainty lies in the conversion factors.

## 6 RESULTS

#### 6.1 PRINCIPLES OF GHG ACCOUNTING

GHG accounting and reporting practices are continuously evolving along with advancing knowledge on the science of climate change. The GHG protocol standard advise that GHG emissions inventories be carried out in accordance with the following principles:

**RELEVANCE-** For an organization's GHG emissions inventory to contain information that users might need for making "informed" decisions. Accordingly, MVGP has identified the appropriate boundaries that reflects their business operations.



- COMPLETENESS All relevant emission sources within the chosen inventory boundary have been accounted in the GHG inventory so that a comprehensive and meaningful inventory of total emissions are compiled.
- **CONSISTENCY** The GHG inventory has been compiled in a manner that ensures that the overall emissions estimate is consistent and comparable over time.
- TRANSPARENCY —All necessary information has been recorded, compiled, and analysed in a manner that enables internal reviewers and external verifiers to attest to its credibility.
- ACCURACY Data reported is sufficiently precise to enable us to make decisions with reasonable assurance and the reported information is credible. Uncertainties in measurements, recording and calculations has been reduced as far as possible and practicable.

### 6.2 TOTAL GHG EMISSIONS IN APRIL 2019 – MARCH 2020 (BASE YEAR)

Table 2: Total GHG Emissions April 2019 – March 2020

Emission Category	GHG Emissions in mtCO2e
Scope 1	255
Scope 2	1502
<b>Total Emissions</b>	1756

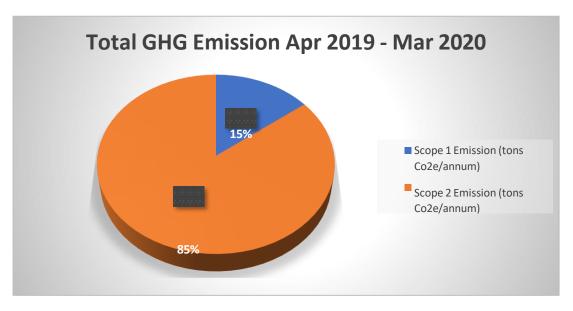


Figure 2:Total Emissions for base year April 2019 – March 2020

Scope 2 emissions contribute 85 % of the total emissions for MVGP.



## 6.3 TOTAL GHG EMISSIONS IN APRIL 2023 – MARCH 2024 (CURRENT REPORTING YEAR)

Table 3: Total GHG Emissions April 2023 - March 2024

Emission Category	GHG Emissions in mtCO2e
Scope 1	276
Scope 2	142.85
Scope 3	4268.47
<b>Total Emissions</b>	4687.32

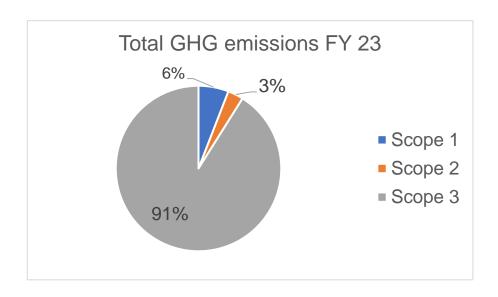


Figure 3: Total Emissions for FY year April 2023 – March 2024

#### Scope 3 emissions contribute 91 % of the total emissions for MVGP.

#### 6.4 SCOPE 1 EMISSIONS: DIRECT GHG EMISSIONS

Direct GHG emissions occur from sources that are owned or controlled by the company, for example, emissions from Refrigerant & Fire extinguisher

Following is the chart that shows various emission sources of scope 1 in 2023. Among all areas, emissions from split AC system has the highest emission.



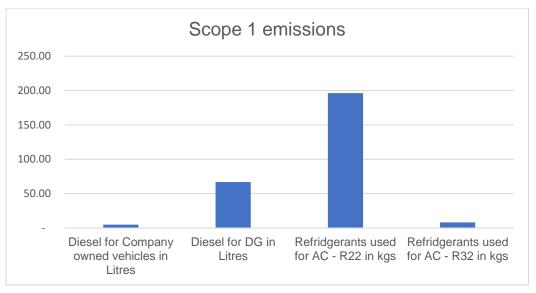


Figure 4: Scope 1 emissions by source in mtCO2e in FY 23

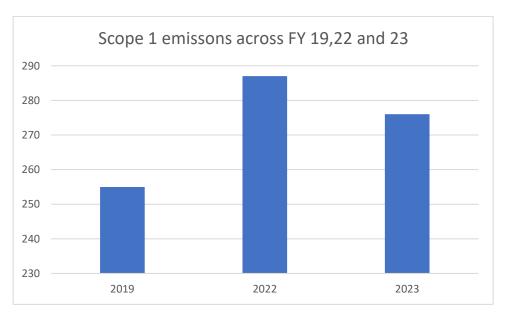


Figure 5: Comparison of Scope 1 emissions across the FY 19,22 and 23

Scope 1 emissions for a MVGP increased from 255 units in 2019 to 287 units in 2022, before slightly decreasing to 276.001 units in 2023. This indicates a significant rise in emissions from 2019 to 2022, followed by a modest improvement. To further reduce emissions, the company could invest in energy-efficient equipment, switch to renewable energy sources, optimize processes, and enhance employee training on energy-saving practices.



#### 6.5 SCOPE 2: ELECTRICITY INDIRECT GHG EMISSIONS

Scope 2 accounts for GHG emissions from the purchased electricity consumed by a company. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company. Scope 2 emissions physically occurs at the facility where electricity is generated.

For the year 2023, Scope 2 emissions of MVGP is 142 mt CO2e. Following chart shows the split of various energy sources of MVGP and only non-renewable electricity sources are considered for the calculations.

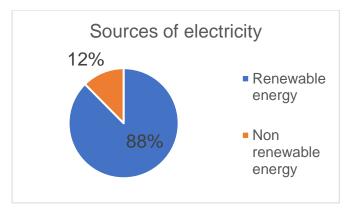


Figure 6: Sources of electricity for MVGP in 2023

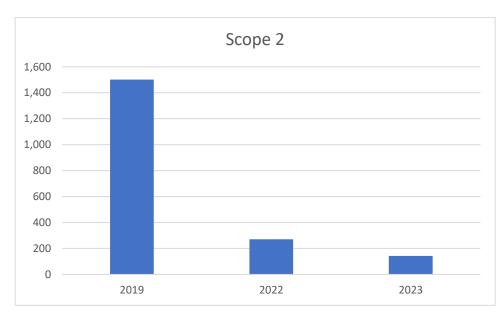


Figure 7: Comparison of Scope 2 emissions across FY19, FY22 and FY23

Scope 2 emissions show a significant reduction, from 1502 units in 2019 to 271 units in 2022, and further down to 142.88 units in 2023. This indicates an impressive decrease of about 82% from 2019 to 2022, followed by an additional 47% reduction in the following year. These reductions likely result from measures



such as switching to renewable energy sources, improving energy efficiency, and optimizing electricity consumption. Continued efforts in these areas can help the company maintain and further this positive trend in reducing Scope 2 emissions.

#### 6.6 SCOPE 3 EMISSIONS FOR FY 23

Scope 3 emissions encompass all indirect emissions that occur in a company's value chain, excluding those covered in Scope 2. This includes emissions from activities such as procurement, transportation, waste management, and the use of sold products.

MVGP's Scope 3 emissions, totaling 4268.47 units, are being reported for the first time this year, marking a significant step in their environmental accountability. The largest contributor is Category 1 (Purchased Goods) at 3611.40 units, highlighting the substantial impact of material procurement on their carbon footprint. Emissions from Upstream and Downstream Transportation (356.32 units) and Employee Commutation (152.61 units) also play notable roles, emphasizing the environmental costs of logistics and daily travel. Additionally, Business Travel (65.56 units) and Waste Management (12.75 units) contribute to the overall emissions. The company recognizes the importance of these findings and is committed to implementing strategies to reduce their Scope 3 emissions in the coming years. The following chart illustrates the various sources of Scope 3 emissions for MVGP,

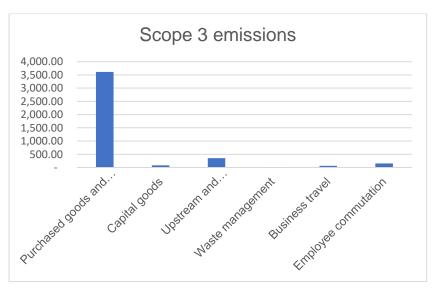


Figure 8: Sources of Scope 3 emissions for FY 23

## 6.7 IMPROVEMENT IN FY 2023 CARBON EMISSIONS AGAINST FY 2019

MVGP has made significant strides in reducing its total emissions in 2023 compared to the base year of 2019, with a notable focus on Scope 2 emissions through the adoption of renewable energy sources.



Additionally, the calculation of Scope 3 emissions for the first time in the reporting year of 2023 has provided a comprehensive understanding of the company's environmental impact across its value chain. While Scope 1 emissions saw an increase primarily due to fugitive emissions, the overall trend reflects MVGP's commitment to sustainability through initiatives such as renewable energy implementation and resource optimization.

Table 3: Comparison and improvement in Carbon emissions (Base year 2019 vs FY 2022 vs Current reporting year 2023)

Year	Scope 1 emissions Tons Co2e	Scope 2 emissions Tons Co2e
2019	255	1,502
2022	287	271
2023	276	142
Reductions in Emissions from 2019- 2023	-8%	90.5%

From 2019 to 2023, MVGP achieved an 8% reduction in Scope 1 emissions (from 255 tons CO2e to 276 tons CO2e) and a substantial 90.5% reduction in Scope 2 emissions (from 1,502 tons CO2e to 142 tons CO2e). These reductions reflect MVGP's commitment to sustainability and efforts to mitigate its environmental impact.

Since absolute numbers can be correlated with the productivity, it is advisable to do intensity measurement of energy and carbon emissions against per ton of paper/board

Financial Year Carbon Intensity/per kg of paper & board in kgs (Scope 1 & 2 only)		Carbon Intensity/per book in kgs (Scope 1 & 2 only)	
Base year - 2019	0.56	0.18	
FY - 2022	0.13	0.06	
Current reporting year – 2023	0.10	0.04	

#### If we consider total emissions including scope 1,2 & 3 the intensity will be as below

Current reporting year – 2023(Scope 1,2 and 3)	1.14	0.49
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## 7 TOWARDS CARBON REDUCTION

MVGP's Net Carbon Commitment means that they are responsible for the carbon emissions from the direct and indirect emissions and in the next reporting cycle may consider reporting emissions in their value chain.

MVGP can plan to implement the following carbon reduction strategies in future.

#### 7.1 USE OF RENEWABLE ENERGY.

(Scope 2: Emission Reduction Strategy)

MVGP can either generate renewable energy on site or purchase renewable energy whenever possible.

These include expanding the use of a low-carbon and non-carbon energy supply to reduce scope 2 emissions,

- Installing renewable energy -solar or
- by purchasing IEX or Power Exchange Renewable Energy Certificates (REC) or
- by signing the PPA contract with the renewable energy provider / plant through Open Access.

A combination of these strategies, with a particular focus on energy supply for scope 2 reduction, will form the basis of a short-term carbon reduction program. MVGP most likely has easy and cost-effective options for obtaining 100% renewable or 100% carbon-free energy and projects are already under discussion.

#### 7.2 REDUCTION OF ENERGY CONSUMPTION.

(Scope 1 and Scope 2: Emission Reduction Strategy)

MVGP can reduce energy consumption at the source through processes such as Energy Efficiency in Buildings and energy efficiency projects at the plant level.

- Conduct a detailed energy audit to identify the high energy consuming Machines and Process.
- Conduct an Electrical Safety Audit to calculate Electrical Leakages in the Industry.
- Curb emissions related to growth through green industry practices
- Lighting Retrofit with latest technologies.
- Reduce consumption through the exchange of knowledge, training, awareness campaigns.
- Replacement of old Equipment with Energy Efficient latest technologies,
- Implementation of ESCO projects.



#### 7.3 CARBON CREDITS:

(Scope 1 and Scope 2: Emission Reduction Strategy)

Considerations for carbon offset mechanisms.

- © Carbon offsetting is a reduction in emissions of carbon dioxide or other greenhouse gases produced to offset emissions made elsewhere. Offsets are measured in tons of carbon dioxide equivalent (CO2e).
- Through any Verified Carbon Standard (VCS), Gold Standard VERs or Kyoto compliant offset credits purchased from the market will comply with the offsetting portion of the PAS 2060 guideline on carbon neutrality, thus ensuring their carbon neutral claims.
- MVGP can offset up to 100% emissions by buying carbon credits.

## 7.4 VOLUNTARY COMPENSATION SCHEMES (SHORT-TERM AND LONG-TERM PROJECTS)

(Scope 1 and Scope 2: Emission Reduction Strategy)

MVGP can offset the carbon emissions that remain after reducing carbon footprint. This is accomplished by assigning a clear cost to carbon and ensuring that each affiliate assumes responsibility for their emissions by paying their carbon offset.

Can seek carbon offset projects approved by the Gold Standard that directly benefit the communities where have an impact. This process supports community investment strategy and enables to deliver benefits to local communities around the world

The Gold Standard A / R requirements are for projects that include planting trees on land that does not meet the definition of forest1 at the start of planting.

Projects can apply all silvicultural systems:

- © Conservation forests (without the use of wood)
- Forests with selective harvesting

## 7.5 ALIGN BUSINESS STRATEGIES WITH SUSTAINABLE DEVELOPMENT GOALS (SDGS)

MVGP can align business strategies with Sustainable Development Goals (SDGs) to create a positive business impact on environmental, social, and economic development.



#### Some of the recommended SDGs that MVGP can focus on:



Investing in more resilient infrastructure and technological innovation to support sustainability.



Efficient consumption of resources such as energy, water, and waste.



Partnering with vendors, government agencies to implement green projects.



Incorporating renewable energy into organizational energy mix by procuring green energy from independent power producers using PPA (Power Purchase Agreement)



Investments to enhance campus biodiversity.



Mitigation of Climate Change impacts through sustainable business

## 7.6 OTHER RECOMMENDATIONS

- Utilize Energy Star –Energy Label certified products such as Energy Star lighting, heating, computers, printers and more to improve upon sustainability performance. For instance, Energy Star rated computers utilize 40-50% less electricity than the regular computers.
- Employee commute and business travel generates majority of the emissions even though it is part of scope 3. Opting for green travel such as electric vehicles, renting hybrid cars, encouraging carpooling, having reward programs for employees opting public transport and



carpooling, staying in green hotels will help cutting down significant amount of MVGP's carbon footprint when Scope 3 measurements are included.

- Robust automated data collection and monitoring systems like "sustainability performance management software" in place to accurately collect activity data and monitor environmental impacts of organizational activities. Additionally, Installing Building Management System to control and monitor building's electrical and mechanical equipment.
- Note: Focus on "Green Building projects" for LEED certification, especially while building new office campuses. Investing in green projects to obtain high level of green building rating will effectively improve resource efficiency and reduced carbon footprint.
- Drafting Biodiversity strategy and action plan
- © Contributing to existing building campuses to create biodiversity zones through enhancement of natural habitat.
- Integrated approach on biodiversity conservation with focus in reducing carbon and energy intensity and improving air quality and water management.
- Hot Aisle/Cold Aisle Design and Containment: Building a datacentre with a hot and cold aisle containment design allows cool air to be delivered directly where it is needed in order to reduce power consumption.
- Facility Preparation: White reflective roofing-Coating/Insulation can be used to decrease the surface temperature of the roof
- Nosting your network offsite and in a datacentre is considered a smart alternative to the traditional in-house server room because not only does it leverage the aforementioned green technologies but also minimizes your energy consumption.

## 8 VERIFICATION OF THE REPORT

Our Greenhouse Gas (GHG) emissions report has undergone thorough verification to ensure accuracy, transparency, and reliability. We engaged V4 Business Consulting LLP, a leading independent assurance provider, to conduct the verification process. V4 Business Consulting LLP applied rigorous standards and methodologies to verify our GHG emissions data, thereby enhancing the credibility of our sustainability reporting. This assurance underscores our commitment to maintaining high standards in environmental reporting and reinforces our dedication to sustainability and transparency. The verification statement from V4 Business Consulting LLP can be provided upon request.



## 9 CONCLUSION

MVGP's Organizational carbon footprint for the reporting year April 2023-March 2024 is **4687.32 mtCO2e**. MVGP is demonstrating a strong commitment to sustainability by ambitiously pushing towards sourcing 95% of its energy from renewable sources to address Scope 2 emissions. This significant shift highlights the company's dedication to reducing its carbon footprint and supporting the transition to a low-carbon economy. By prioritizing renewable energy, MVGP aims to significantly reduce its dependence on fossil fuels, thereby decreasing greenhouse gas emissions and promoting cleaner energy solutions.

Additionally, MVGP has commenced the calculation of its Scope 3 emissions to gain a comprehensive understanding of indirect emissions across its entire value chain. This initiative involves assessing emissions from a wide range of sources, including purchased goods and services, business travel, employee commuting, and waste disposal. By identifying and quantifying these emissions, MVGP aims to address all areas of its environmental impact. This comprehensive approach not only enhances MVGP's efforts to achieve holistic sustainability but also demonstrates a commitment to transparency and accountability in its environmental performance. The company's proactive stance on both Scope 2 and Scope 3 emissions positions it as a leader in sustainability and sets a benchmark for industry best practices.

## **10 REFERENCES**

For the purpose of calculating and reporting GHG emissions, the following standards, protocols, and emissions factors are applicable:

- Greenhouse Gas Protocol on Corporate Accounting and Reporting by World Resource Institute (WRI) / World Business Council for Sustainable Development (WBCSD)
- 2. Defra Greenhouse Gas Protocol <a href="https://ghgprotocol.org/Third-Party-Databases/Defra">https://ghgprotocol.org/Third-Party-Databases/Defra</a>
- 3. GHG Protocol https://cea.nic.in/wp-content/uploads/baseline/2020/07/user guide ver15.pdf
- 4. Central Electricity Authority <a href="https://cea.nic.in/?lang=en">https://cea.nic.in/?lang=en</a>

For any further questions/clarifications, please contact pnkrishna@multivistaglobal.com



## **ANNEXURE 01: LIST OF ABBREVIATIONS**

GHG	Green House Gas		
AC	Air Conditioning	Km	Kilo meter
Avg.	Average	KV	Kilo Volt
CEA	Central Electricity Authority	kWp	Kilo Watt peak
CO2e	Carbon dioxide equivalent	LPG	Liquefied Petroleum Gas
EE&EC	Energy Efficiency and Energy Conservation	MT	Metric Tonnes
GCM	Gramm Cubic Meter	MTCE	Metric Tonnes Carbon Equivalent
GWP	Global Warming Potential	MU	Million Units
IPCC	Intergovernmental Panel for Climate Change	MW	Mega Watt