PracticalSustainability

...with you from theory to practice

A COMPREHENSIVE GUIDE

Decoding Carbon
A Practical Guide To GHG Accounting

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Focus Areas

Introduction

The growing concerns on the detrimental effects of climate change on our planet and the emerging new regulations worldwide, underscores the urgent need for organizations to measure and reduce their *greenhouse gas (GHG) emissions*.

By understanding the sources and amounts of these emissions, companies can take meaningful actions to address and mitigate their impact on the environment.

Addressing GHG emissions is not only beneficial for the planet but also for the organization's reputation and long-term success.

WHAT IS GHG ACCOUNTING?

What is GHG Accounting?

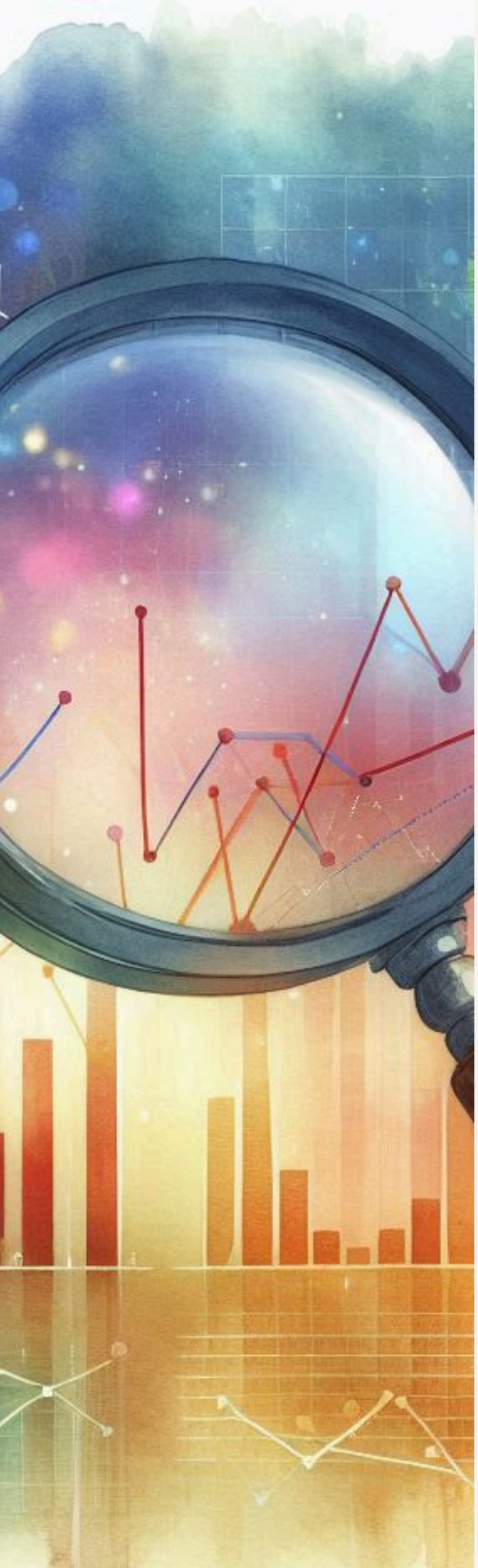
Greenhouse Gas (GHG) accounting is the process of measuring and managing the greenhouse gas emissions produced by an organization, project, or activity.

It involves quantifying the amount of GHGs emitted, identifying the sources of these emissions, and tracking changes over time.

There are a number of principles that are essential for accurate emissions management. These are explained overleaf.

Ultimately, the main goal of GHG accounting is to help organizations understand their carbon footprint and take steps to reduce their emissions.

THE PRINCIPLES OF GHG ACCOUNTING



Relevance

Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users.

This involves identifying significant emission sources and prioritizing them in reporting.

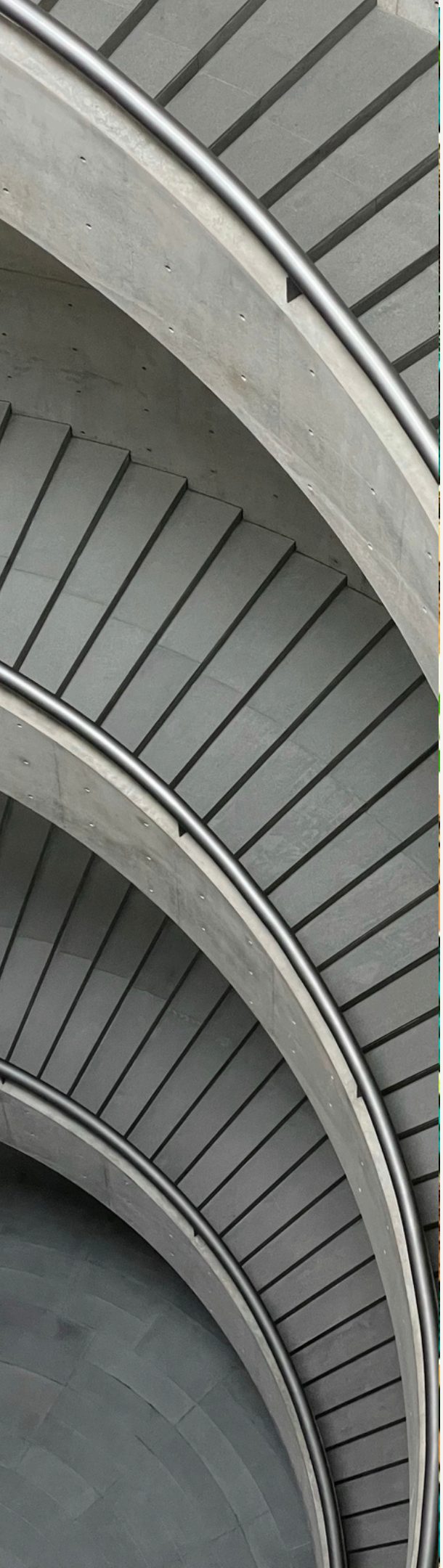
For example, a manufacturing company might focus on emissions from production processes, while a service-oriented business might emphasize energy consumption in offices.

Completeness

Account for all GHG emission sources and activities within the chosen inventory boundary.

Disclose and justify any specific exclusions. This comprehensive approach is essential for setting realistic reduction targets and monitoring progress over time.

Organizations should include both direct and indirect emissions, covering Scope 1, Scope 2, and Scope 3 emissions.

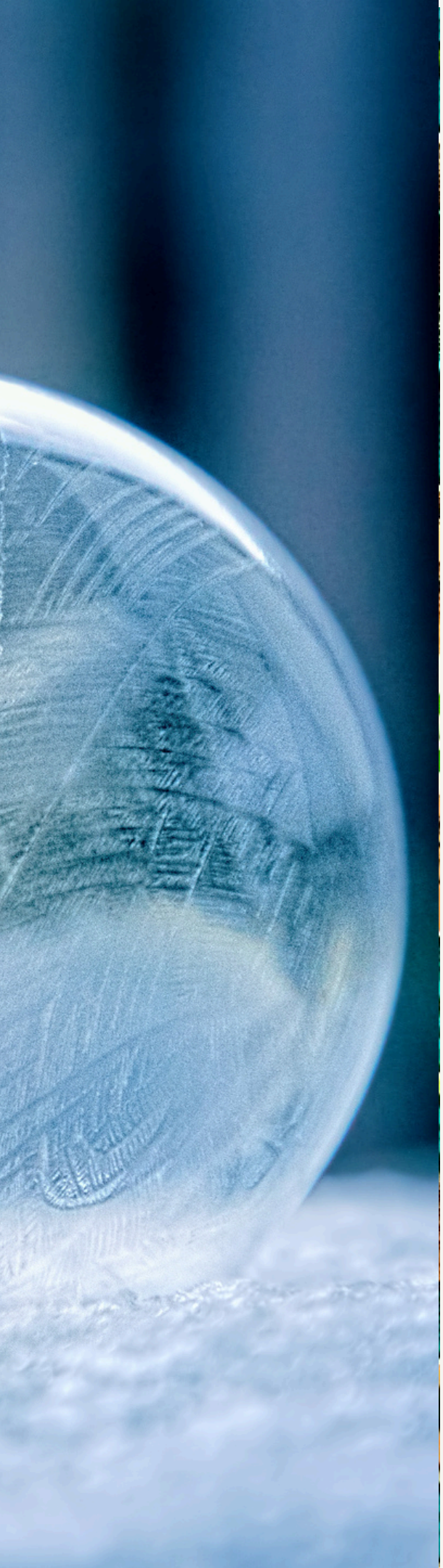


Consistency

Use consistent methodologies to allow for meaningful comparisons of emissions over time.

Transparently document any changes in data, inventory boundary, methods, or any other relevant factors.

This ensures that the GHG data remains comparable and reliable, enabling organizations to track their progress and make informed decisions.



Transparency

Address all relevant issues in a factual and coherent manner, based on a clear audit trail.

Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

Transparency helps build trust with stakeholders and ensures that the reported data is credible and verifiable.

Accuracy

Ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable.

This involves using robust data collection methods and verification processes, such as direct measurement tools or third-party audits, to minimize uncertainties and improve the reliability of the reported data.

GREENHOUSE GAS PROTOCOL

GHG Reporting Standards

GHG accounting typically follows established standards and protocols, which provides guidelines for measuring and reporting emissions.

These standards ensure consistency, transparency, and accuracy in GHG reporting whilst enabling organizations to better understand and reduce their carbon footprint.

A globally recognized framework is the Greenhouse Gas (GHG) Protocol.

Let’s briefly look at what it is.

Greenhouse Gas Protocol

Developed through a collaboration between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), the *GHG Protocol* is a framework designed to measure and manage greenhouse gas emissions for both the private and public sectors.

It provides the most widely used standards, guidance, tools, and training for businesses and governments.

THE GHG Protocol covers various aspects of GHG accounting, which are briefly explained overleaf.

Aspects of GHG Accounting

01

Corporate Accounting and Reporting Standard

This standard provides a framework for companies to measure and report their GHG emissions. It is the foundation for virtually every corporate GHG reporting program in the world.

02

Corporate Value Chain (Scope 3) Standard

This standard helps companies account for emissions throughout their value chain, including indirect emissions from suppliers and customers.

03

Product Lifecycle Accounting and Reporting Standard

This standard provides guidance on measuring the GHG emissions associated with the entire life cycle of a product, from raw material extraction to disposal.

04

GHG Protocol For Cities

This standard helps cities measure and manage their GHG emissions, supporting their efforts to achieve climate goals.

Greenhouse Gas Protocol

(continued)

The GHG Protocol is widely adopted by companies, governments, and organizations, enabling them to develop reliable GHG inventories, set reduction targets, and track progress over time.

By providing a consistent and transparent approach, the protocol helps organizations take meaningful action to reduce emissions and contribute to global efforts to combat climate change.

THE PROCESS OF GHG ACCOUNTING

1

Identify Emission Sources

Determine the sources of GHG emissions within the organization, including *direct* emissions from owned or controlled sources and *indirect* emissions from the consumption of purchased electricity, heat, or steam.

2

Collect Data

Gather data on energy consumption, fuel usage, and other relevant activities that contribute to GHG emissions. This data is essential for accurate measurement and reporting.

3

Calculate Emissions

Use standardized methods and emission factors to calculate the total GHG emissions. This involves converting activity data (e.g., fuel consumption) into CO2 equivalents using appropriate conversion factors.

4

Verify and Validate

Ensure the accuracy and reliability of the GHG inventory through internal reviews, third-party audits, or other verification processes.

5

Report Emissions

Prepare a comprehensive report that details the organization's GHG emissions. This report should follow established reporting standards, such as the GHG Protocol, to ensure consistency and transparency.

6

Set Reduction Targets

Establish targets for reducing GHG emissions based on the organization's goals and regulatory requirements. These targets should be specific, measurable, achievable, relevant, and time-bound (SMART).

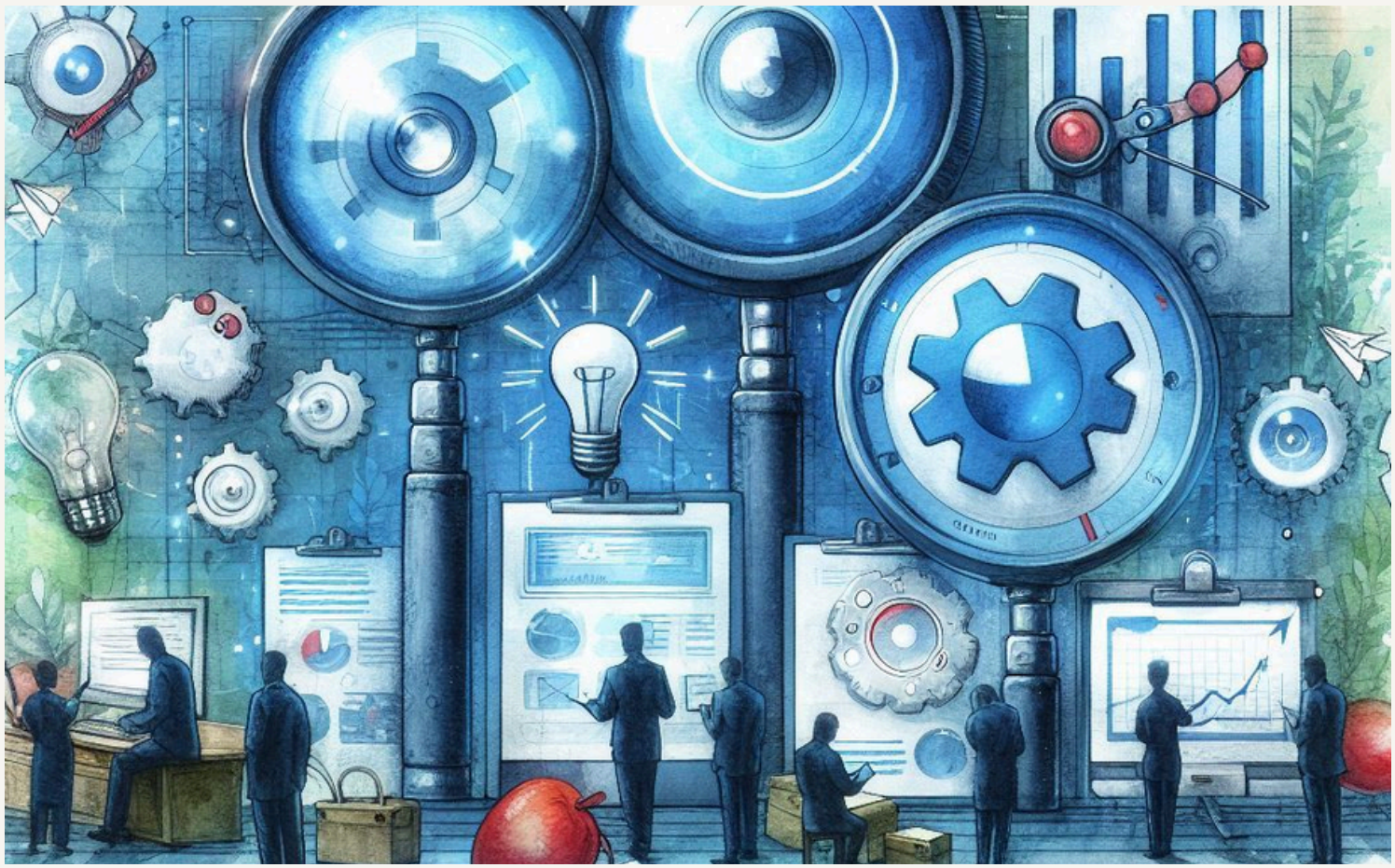
7

Implement Reduction Strategies

Develop and implement strategies to reduce GHG emissions. This may include energy efficiency measures, renewable energy adoption, process improvements, and other initiatives.

8

Monitor and Review



Continuously monitor GHG emissions and review progress towards reduction targets. Regularly update the GHG inventory and adjust strategies as needed to achieve the desired outcomes.

BENEFITS OF GHG ACCOUNTING

REGULATORY COMPLIANCE

01

Many regions require businesses to monitor and report their GHG emissions. Compliance helps businesses avoid fines and legal issues.

RISK MANAGEMENT

02

Understanding GHG emissions helps businesses manage risks related to climate change, such as regulatory changes, physical impacts, and reputational risks.

COST SAVINGS

03

Monitoring and reducing GHG emissions can identify inefficiencies in operations, leading to significant energy and resource cost savings.

COMPETITIVE ADVANTAGE

04

A commitment to sustainability and reducing GHG emissions enhances a business's reputation and brand value, attracting eco-conscious customers and investors.

INNOVATION AND EFFICIENCY

05

GHG accounting encourages businesses to innovate and find new ways to reduce emissions, leading to more efficient and sustainable products, services, and processes.

STAKEHOLDER ENGAGEMENT

06

Transparent GHG emissions reporting builds trust and credibility with stakeholders, including customers, investors, employees, and the public. It demonstrates a commitment to corporate social responsibility.

MARKET OPPORTUNITIES

07

As demand for low-carbon products and services grows, businesses committed to reducing GHG emissions can capitalize on new market opportunities.

FUTURE PROOFING

08

Preparing for a low-carbon economy helps businesses stay ahead of future regulatory changes and market trends, allowing them to adapt to evolving expectations and requirements.

Conclusion

Greenhouse Gas (GHG) accounting is a critical component of modern business practices.

It ensures regulatory compliance, mitigates climate-related risks, reduces operational costs, enhances brand reputation, and drives innovation.

By transparently reporting GHG emissions, businesses build trust with stakeholders and seize new market opportunities in a low-carbon economy.

Ultimately, GHG accounting not only prepares businesses for future regulatory changes and market trends, fostering long-term sustainability and success but also contribute to global efforts to combat climate change.

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