



Greenhouse Gas (GHG) Accounting



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Content

01

Why GHG accounting matters now

02

What is GHG accounting

03

The role of GHG accounting in sustainability

04

What leading organisations are doing differently

05

Common challenges in early stage GHG accounting

06

Why good GHG accounting enables better outcomes

07

Building from basics to maturity

Why Greenhouse Gas (GHG) Accounting matters now



GHG data is becoming business data.

Climate change has moved from a long-term environmental concern to an immediate economic, regulatory and strategic issue.

Disclosure



Climate information increasingly needs to connect to strategy, risk, performance and financial reporting.

Measurement



Emissions information is moving into capital allocation, procurement, operations and product decisions.

Targets



The challenge is shifting from setting ambition to proving progress against a reliable and controlled baseline.

Assurance



As scrutiny rises, organisations need evidence, lineage and repeatable controls behind the reported number.



The strategic question is no longer “Do we report emissions?” but “Can management trust the information it uses?”



The Signals are Clear – GHG Accounting is Becoming a Business Imperative



REGULATORY READINESS Ghana

2027

Mandatory ISSB reporting begins for public-interest entities

Ghana's significant public-interest entities will be required to apply IFRS S1 and IFRS S2 for annual periods beginning 1 January 2027. Other mandatory adopters follow from 2028.(1)



COMPLIANCE Africa

51%

of African CEOs are prioritising sustainability compliance and reporting.

The demand for reliable data is rising faster than many organisations' reporting systems are maturing.



REPORTING QUALITY Ghana

53%

of GSE-listed entities reported on sustainability in 2024.(2)

29%

disclosed carbon-reduction targets (down from 45% in 2023).(2)

25%

obtained external assurance over sustainability information (down from 50% in 2023).(2)



Better Disclosure does not automatically mean Better Data



MARKET PRESSURE Global

US\$140

trillion

More than **700 investors** representing US\$140 trillion in assets, together with 330 major corporate buyers representing US\$6.4 trillion in purchasing power, use CDP's environmental disclosure system and data to assess risks and opportunities and inform business decisions.(4)



2027 Is closer than it looks



For Ghanaian businesses, GHG accounting is becoming fundamental to regulatory readiness, access to capital, participation in global supply chains and credible business decision-making.

(1) [IFRS Foundation, Ghana Jurisdictional Profile for IFRS Sustainability Disclosure Standards.](#)

(2) [KPMG in Ghana, 'Sustainability Reporting Survey of Ghana Stock Exchange Listed Entities 2026', 2024 data.](#)

(3) [CDP & BCG, 'Scope 3 Upstream: Big Challenges, Simple Remedies', 2024.](#)

(4) [CDP, 'The Power of Transparency is for All to See', January 2025.](#)

What is GHG Accounting?



GHG accounting is the process by which an organisation identifies, quantifies and reports the greenhouse gas emissions associated with its activities. In simple terms, it is how organisations measure their contribution to climate change in a structured and consistent way.



Why it resembles financial accounting

Boundaries, consistent methods, documented judgements and controls matter in both disciplines



Why it is harder to control

Emissions data often combines direct measurements, estimates and externally sourced data, especially beyond direct operations

Understanding what GHG accounting is lays the foundation for understanding why it is essential to sustainability, how it is applied in practice and how it can be improved as organisations mature. It is the starting point for credible climate management, not the end point.

The role of GHG accounting in sustainability

GHG accounting has a specific and practical role within sustainability...



Establishing a credible baseline

GHG accounting establishes a consistent emissions baseline, helping organisations identify key sources and focus reduction efforts where they will have the greatest impact.



Enabling meaningful targets and commitments

GHG accounting enables organisations to set credible emissions targets based on reliable data and transparently track progress against transition and net-zero commitments.



Supporting informed decision making

GHG accounting integrates emissions with cost, risk and performance, enabling better investment, procurement, operational and product decisions.



Improving transparency and accountability

GHG accounting enables consistent, transparent emissions reporting, helping organisations respond confidently to stakeholder scrutiny.



Driving continuous improvement

GHG accounting supports continuous improvement by turning better-quality data into more accurate insights, targeted reductions and reliable progress tracking.



Supporting IFRS S2 and climate-related financial disclosure

GHG accounting supports IFRS S2 by connecting reliable emissions data with financial planning, climate strategy, risk management and performance reporting.

What Leading Organisations are doing Differently



One emissions data model

Finance, sustainability, procurement and operations work from common definitions, ownership and data lineage



Materiality before perfection

Improve data where it matters most instead of trying to make every data point equally precise.



Controls around judgement

Document assumptions, emission factors, boundary decisions and methodology changes.



Decision integration

Use emissions information in investment, procurement, operational and strategic decisions

The leading organisation is not necessarily the one with the most detailed inventory, it is the one that can produce reliable, explainable data quickly enough to influence decisions



GHG Accounting is moving From

**“calculate and disclose”
To
“measure, control and use”**

The GHG Data Chain



The GHG Data Chain



**The quality of the output is
constrained by the weakest
material link in the chain.
Strong inventories therefore
require data lineage, ownership,
methodology controls and
review, not just a calculation file.**

Where Organisations Struggle

Ghana is reporting, but the next challenge is credible, measurable data.

01

DATA AVAILABILITY

Data sits across ERP, procurement, utility, fleet, HR and operational systems.



02

ESTIMATES & ASSUMPTIONS

Unmanaged assumptions can create large swings and make progress difficult to defend.



03

BOUNDARY CHANGES

Acquisitions, disposals, outsourcing and restructuring can break comparability.



04

CONSISTENCY OVER TIME

Methodology and factor changes can look like performance changes.



05

SCOPE 3 COMPLEXITY

Value-chain emissions require prioritisation, supplier engagement and mixed data sources.



06

GOVERNANCE & OWNERSHIP

Without clear ownership and review, responsibility for data quality becomes diffuse.



What the Data Shows...

Assurance will increasingly test the system behind the numbers, and not just the numbers.

Sources:

1. [KPMG](#)
2. [CDP](#)



21%

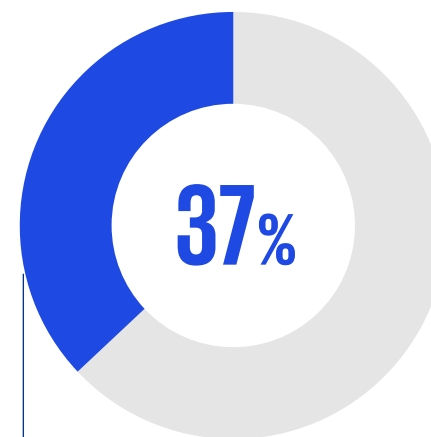
1 in 5 African CEOs identifies supply-chain decarbonisation complexity as a major barrier to achieving climate and net-zero ambitions.

27%

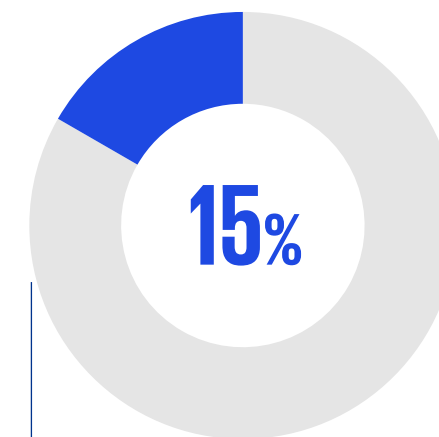
KPMG Ghana's latest review of GSE-listed entities found that Only 27% disclosed sustainability governance in 2024

20.11%

Ghana's 2024 Biennial Transparency Report estimated the overall uncertainty of its 2022 national GHG inventory at 20.11%.



Across more than 23,000 companies disclosing through CDP in 2023, only 37% disclosed emissions across Scope 1, Scope 2 and Scope 3..



Among companies disclosing through CDP, only 15% had set a Scope 3 emissions target, despite the size of supply-chain emissions.

Why Good GHG Accounting Enables Business Outcomes

The Value Of GHG Accounting Is What It Changes, Not What It Reports

01

Prioritisation

Focus capital and management attention on emissions sources material to strategy.

02

Credible Targets

Use a reliable baseline to set measurable commitments and track progress

03

Better Decisions

Bring emissions data into investment, procurement, operations and product decisions.

04

Trust

Explain methodologies, progress and limitations to investors, regulators and customers.

Building from basics to maturity

Baseline

Define boundaries, material sources, ownership and calculation methods.

Data Quality

Move from high-level estimates to more activity-based and reliable data.

Governance

Align sustainability, finance and operations; document methodologies and assumptions.

Decision Integration

Make GHG data a recurring input into investment, procurement, risk and performance management.

Continuous Improvement

Revisit data, boundaries and methods as the organisation and expectations change.



Most organisations do not need perfect data on day one. They need a controlled path to better data, prioritising materiality, governance and decision usefulness.

Beyond the basics - The next five years



AI-assisted measurement

Automated extraction, anomaly detection and estimation can reduce manual effort but controls over models and assumptions will matter.



Assurance-ready architecture

Evidence, lineage, review trails and repeatable controls will become part of the emissions data operating model.



Financial & emissions reporting

GHG data will increasingly connect to planning, risk, performance management and financial reporting cycles.



Scope 3 as business intelligence

Value-chain data can inform supplier strategy, product design, sourcing and transition planning, not only disclosure.



The leaders will be distinguished less by the volume of disclosure and more by the speed, reliability and usefulness of the underlying emissions data.



Key Takeaways



Start establishing a simple but complete emissions baseline, even if data is imperfect, to create visibility and momentum



Use the initial baseline to focus effort on the most material emissions sources, rather than trying to address everything at once



Strengthen data quality and governance over time so emissions information becomes reliable and repeatable, not a one-off exercise



Embed GHG data into financial, operational and procurement decisions to ensure sustainability informs real business choices



Commit to continuous improvement, recognising that mature GHG accounting evolves as the organisation, data and expectations change



References

Frameworks and standards

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- Greenhouse Gas Protocol, *Scope 2 Guidance*
- Greenhouse Gas Protocol, *Corporate Value Chain Scope 3 Standard*
- ISO 14064-1, *Greenhouse gases: Specification with guidance at the organisation level for quantification and reporting*
- IFRS Foundation, *IFRS S1 and IFRS S2 Climate-related Disclosures*

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- Task Force on Climate-related Financial Disclosures, *Final Recommendations Report*
- Science Based Targets initiative, *Corporate Net-Zero Standard*
- CDP, *Climate Disclosure Data and Supply Chain Reports*
- World Business Council for Sustainable Development, *GHG and Scope 3 Guidance*

Data quality and maturity

- CDP, *Climate Disclosure Scoring Methodology*
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- US Environmental Protection Agency, *Greenhouse Gas Reporting Program Guidance*
- UK DEFRA, *Environmental Reporting Guidelines*
- KPMG, sustainability reporting and climate disclosure insights



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