LRQA

A comprehensive guide to managing your GHG Emissions

Measure, verify and report

Introduction

As the climate crisis accelerates, the urgency for effective greenhouse gas (GHG) emissions management has never been greater. In the rapidly changing world, the era of Assurance 4.0, where businesses face rising complexities in Environmental, Social and Governance (ESG) expectations, the need for robust emissions strategies is paramount. Companies must not only **measure, verify** and r**eport** emissions but also navigate the intersecting challenges of regulatory compliance, stakeholder demands and operational resilience.

This guide provides a detailed roadmap for understanding, measuring, verifying and reporting GHG emissions while navigating the increasingly complex landscape of agreements, frameworks, standards and regulations. LRQA's comprehensive suite of services is designed to support your organisation at every step of this journey.

Our solutions are delivered by a global team of over 800 ESG industry experts across the globe, working with clients to drive strategic transformation throughout their supply chains, meet regulatory requirements and deliver against their business objectives.

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Understanding your GHG emissions

GHG emissions come from a variety of sources within and outside an organisation's direct control. To effectively manage emissions, it is essential to understand where they originate and how they are categorised.

Scope 1 emissions

refer to direct emissions from sources owned or controlled by the organisation, such as company vehicles, manufacturing facilities, or on-site fuel combustion.
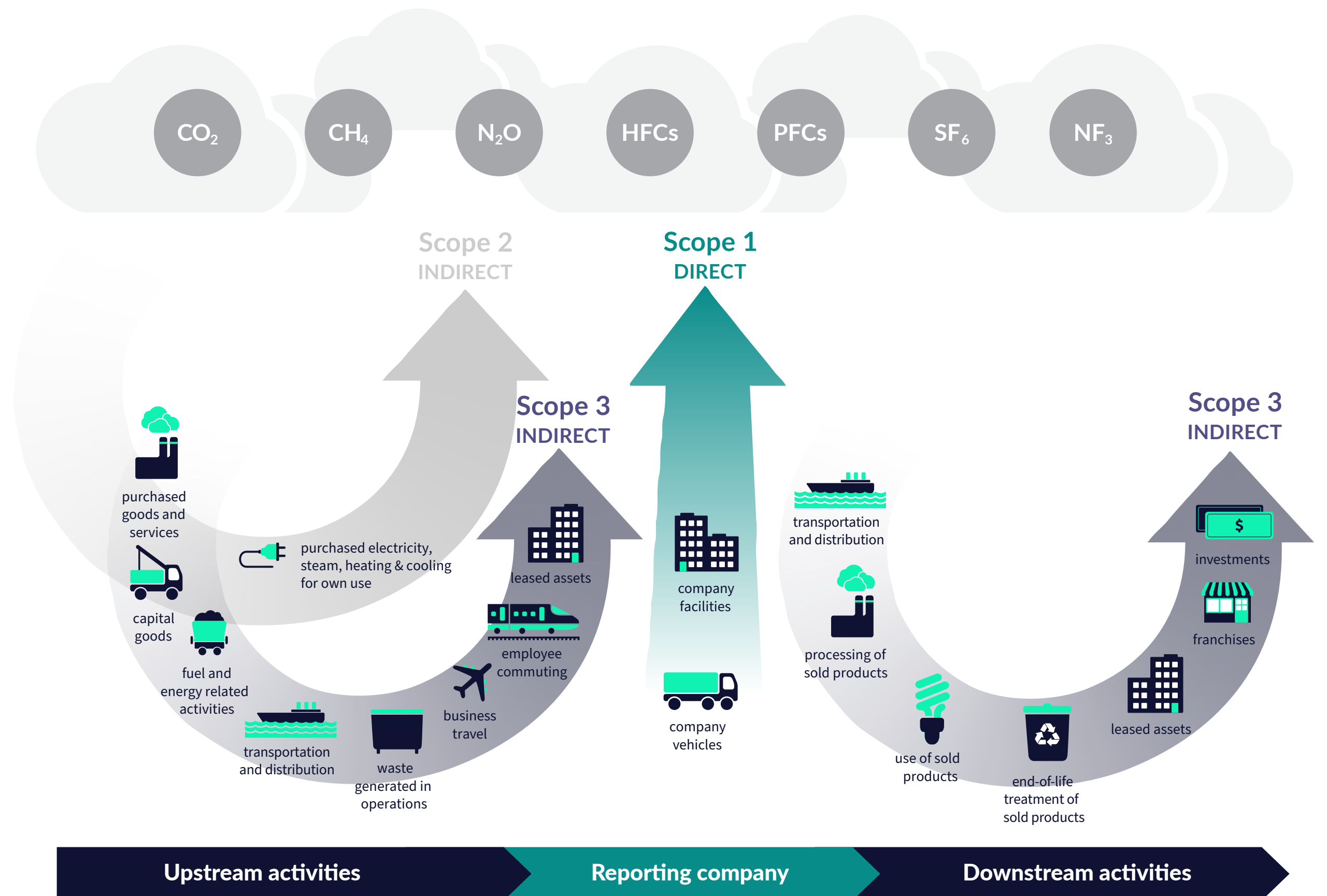
Scope 2 emissions

cover indirect emissions from the purchase of electricity, steam, heating, or cooling. These are critical to understanding energy-related impacts.

Scope 3 emissions

encompass all other indirect emissions within the value chain. These include emissions from suppliers, product use, waste disposal, transportation and even employee commuting.

For most organisations, Scope 3 emissions represent the largest share of their total footprint, at least 75%. However, they are also the most challenging to measure due to the need for extensive collaboration with stakeholders across the supply chain. Understanding and addressing emissions across all three scopes is a fundamental step toward achieving sustainability goals.

Making sense of a complicated landscape

The GHG emissions management landscape is shaped by a combination of global agreements, reporting frameworks, technical standards and regulatory requirements. These provide the foundation for organisations to measure, manage, and report emissions effectively.

Global agreements driving climate action

The Paris Climate Agreement

The Paris Climate Agreement aims for participating nations to achieve net-zero greenhouse gas emissions by 2050, aligning with efforts to limit global warming to 1.5°C above pre-industrial levels.

Sustainable Development Goals (SDGs)

Includes SDG 13 on climate action, linking climate efforts to broader sustainability objectives.

UN Framework Convention on Climate Change (UNFCCC)

The overarching treaty guiding global climate efforts, including the Paris Agreement and annual COP negotiations.

Glasgow Climate Pact

Adopted at COP26 in 2021, the pact reaffirmed the Paris Agreement goals and pushed for stronger national commitments to achieve net zero emissions by mid-century.

Technical standards for measurement and verification

Some examples include:

ISO 14064-1

A globally recognised standard for measuring and reporting organisational GHG emissions.

PAS 2060

Provides a pathway for achieving and certifying carbon neutrality.

ISO 14067 / PAS 2050

Focus on calculating product - level carbon footprints to ensure consistency and accuracy.

Frameworks for reporting and transparency

Key frameworks include:

Global Reporting Initiative (GRI)

Provides comprehensive guidance for reporting on environmental, social, and governance (ESG) performance.

Task Force on Climate-related Financial Disclosures (TCFD)

Focuses on disclosing the financial risks and opportunities associated with climate change.

Science-Based Targets Initiative (SBTi)

Helps organisations set science-based GHG reduction targets that align with the goals of the Paris Agreement.

CDP (Carbon Disclosure Project)

Promotes environmental transparency by encouraging organisations to disclose their climate impacts and actions.

Key regulations and their impact

Examples include:

The EU's Corporate Sustainability Reporting Directive (CSRD)

Requires comprehensive disclosure of Scope 1, 2, and 3 emissions, verified by an independent third party.

California's SB 253 and SB 261

Mandate GHG emissions reporting, including Scope 3, with third-party assurance for compliance.

The UK's Streamlined Energy and Carbon Reporting (SECR)

Obligates large companies to report on energy use and carbon emissions, including efficiency improvements.

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Measure, verify and report your GHG emissions

Measure your emissions

Measurement is the cornerstone of effective GHG management. To build a reliable emissions inventory, organisations must:

- **Define their scope**

  Identify all relevant sources of emissions across Scope 1, 2 and 3.

- **Utilise recognised standards**

  Frameworks like ISO 14064-1 or the GHG Protocol provide structured methodologies for accurate data collection and calculation.

- **Leverage technology**

  Tools like LRQA's EiQ analytics platform simplify data gathering, analysis and reporting, enabling organisations to make data-driven decisions.

Verify your emissions

Verification ensures the credibility and accuracy of GHG data. It enhances stakeholder trust and supports compliance with reporting requirements. The levels of assurance include:

- **Limited assurance**

  A high-level review that involves selective sampling of data

- **Reasonable assurance**

  A more rigorous evaluation that provides greater confidence in the accuracy of reported data

Report your emissions

Transparent and consistent reporting is essential for meeting stakeholder expectations and regulatory obligations.

- **Adopt relevant frameworks**

  Use TCFD, CDP or CSRD to structure and communicate climate-related information

- **Engage stakeholders**

  Publish verified reports that demonstrate progress towards sustainability goals

- **Ensure credibility**

  Third-party verification adds reliability and transparency to reported data

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Supporting you with a full suite of GHG services

LRQA offers a comprehensive range of services to support organisations in every stage of their GHG emissions management journey.

LRQA GHG Services

- Plan and prepare
- Organisational GHG and carbon verification
- Sector-specific standards and frameworks
- Country-specific programmes and frameworks
- Product carbon footprint and decarbonisation
- Analytics and technology-driven insights

Supporting you with a full suite of GHG services

Plan and prepare

ESG consulting

Providing expertise to build robust environmental strategies.

- Environmental strategy, target setting, and disclosures
- Corporate carbon footprint and decarbonisation strategy

Training

- ISO 14064: Introduction, implementation, and verification
- Environmental sustainability skills for managers and workforce
- ESG concepts and practices.

ESG pre-verification support

Ensure readiness for robust ESG and GHG reporting frameworks:

- Preliminary verification for ISO 14064-1 and GHG Protocol compliance
- Regulatory scheme alignment (e.g., CSRD, CBAM)
- Gap analysis and support for assurance transitions

Find out more →

Organisational GHG and carbon verification

We provide assurance for organisational and corporate data, covering:

- ISO 14064-1 and GHG Protocol standards
- TCFD and CDP reporting frameworks

Find out more →

Sector-specific standards and frameworks

Customised standards to meet the unique needs of individual industries.

- Construction: PAS 2080 (sustainable infrastructure)
- Transportation: ISO 14083 (transport greenhouse gas)
- Consumer Goods and Retail: Higg FEM (facility environmental module)

Find out more →

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Supporting you with a full suite of GHG services

Country-specific programmes and frameworks

We help organisations meet country-specific frameworks and regulations, such as:

European Union and UK
- EU ETS/ETS2 (Emissions Trading Scheme), UK ETS, CBAM (Carbon Border Adjustment Mechanism)
- Corporate Sustainability Due Diligence Directive (CSDDD)

Americas
- CARB (California Air Resources Board), TCR (The Climate Registry), SEC (Securities and Exchange Commission)
- OCS Blue (Ocean Conservancy Standards)

China
- Environmental disclosure and compliance regulations

Find out more →

Product carbon footprint and decarbonisation

Helping businesses transition to net zero and adopt circular economy principles.

Carbon Neutrality and Circular Economy:
- PAS 2060 (carbon neutrality certification)
- ISO 14068 (climate change management)

Product Carbon Footprint Verification:
- ISO 14067
- PAS 2050
- GHG Protocol

Find out more →

Analytics and technology-driven insights

Central to helping you identify, prioritise and manage risk to drive business performance and meet regulatory requirements is our leading supply chain intelligence platform, EiQ.

EiQ uses LRQA's unique, proprietary, verified data to deliver actionable insight and enable end-to-end supply chain ESG due diligence.

Carbon data is available via EiQ and organisations can view their Scope 1 and 2 GHG emissions data and can customise filters for flexible reporting. EiQ also delivers tailored environmental insights across sourcing countries and products.

Find out more →

EiQ by LRQA

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Why partner with LRQA?

On-the-ground expertise

With over 800 ESG specialists worldwide, our expertise enables us to guide organisations through the nuances of GHG verification and decarbonisation, supporting complex challenges in over 150 countries.

Continuous assurance

By continuously tracking and reporting on emissions, energy use, and sustainability initiatives, LRQA helps organisations adjust their strategies to meet their environmental goals and comply with evolving regulations. We're proud to be cited within the public Sustainability reports of over 30 global brands, who all reference insights derived from our EiQ platform.

Solution-based partnerships

LRQA works hand in hand with clients, offering solutions that go beyond compliance to drive sustainable growth. We are committed to delivering the right outcomes for our clients and our global teams work closely with businesses across the world to do so.

Data-driven decision making

Our advanced analytics platform, EiQ, powers data-driven insights that inform GHG management. Leveraging proprietary data, EiQ enables clients to track, analyse and mitigate GHG risks across the supply chain, ensuring informed, effective decision-making aligned with business goals and regulatory standards.

LRQA offers a comprehensive range of services to support organisations in every stage of their GHG emissions management journey.

Find out more →

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About LRQA:

LRQA is the leading global assurance partner, bringing together decades of unrivalled expertise in assessment, advisory, inspection and cybersecurity services. Our solutions-based partnerships are supported by data-driven insights that help our clients solve their biggest business challenges.

Operating in more than 150 countries with a team of more than 5,000 people, LRQA's award-winning compliance, supply chain, cybersecurity and ESG specialists help more than 61,000 clients across almost every sector to anticipate, mitigate and manage risk wherever they operate.

In everything we do, we are committed to shaping a better future for our people, our clients, our communities and our planet.

Get in touch

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