

ESG Informational Booklet

Series 2



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FOREWORD

Dear Readers,

It is with great pleasure that we present to you this comprehensive series 2 booklet compiling essential information on GRI (Global Reporting Initiative) standards, the GHG (Greenhouse Gas) protocol, and various approaches to GHG calculation. In today's dynamic business landscape, sustainability and responsible environmental practices are imperative for organizations aiming to thrive and make a positive impact.

This compilation serves as a valuable resource for individuals and entities committed to understanding and implementing sustainability reporting and greenhouse gas management. The content is designed to understand complex concepts, providing clear insights into the GRI standards, GHG protocol, and diverse information on greenhouse gas emissions.

We believe that informed decision-making is the cornerstone of effective sustainability efforts. This booklet is created to empower you with the knowledge needed to navigate the details of sustainability reporting and greenhouse gas accounting. Whether you are a sustainability professional, a corporate leader, or someone keen on contributing to a greener future, this compilation is a handy reference to meet your informational needs.

Thank you for joining us on this exploration, and may your commitment to sustainability lead to lasting and meaningful impacts.

Sincerely,



Bijo S Dinesh



Bijo S Dinesh,
EHS expert ,
Principal Advisor
TeamTech EHS

What are GRI Sector Standards?

The GRI Sector Standards are a set of sustainability reporting standards that are designed to help organizations in specific sectors, in identifying their most significant impacts and reflect stakeholder expectations for sustainability/ESG reporting.



OBJECTIVES



- To assist organizations in identifying & addressing their most significant sustainability impacts.
- To improve the quality of sustainability reporting & consistency
- To standardize guidelines for transparent sustainability disclosure.
- To drive sustainable development through accountability and disclosure.



OVERALL STATUS OF SECTOR STANDARDS

- Oil and Gas (GRI 11) Standard was published on 5th October 2021
- Agriculture, Aquaculture and Fishing (GRI 13) Standard was published on 28th June 2022
- Mining Sector Standard Approval is expected to be approved by Q4 2023
- Coal (GRI 12) Standard was published on 15th March 2022
- Financial services Project commence in Q2 2023
- Textiles and apparel Sector Standard Project is under development

GRI outline organization's likely material topics and list disclosures that are relevant for the sector to report on.

Sector Standards - Oil and Gas



GRI 11 provides information for organizations in the oil and gas sector about their likely material topics. These topics are likely to be material for organizations in the oil and gas sector on the basis of the sector’s most significant impacts on the economy, environment, and people, including on their human rights.

GRI 11 applies to organizations which undertake



Exploration and production of onshore and offshore oil & gas



Supply of equipment and services to oil fields and offshore platforms



Transportation and storage of oil and gas



Refining of oil to petroleum products

GRI 11

OIL AND GAS

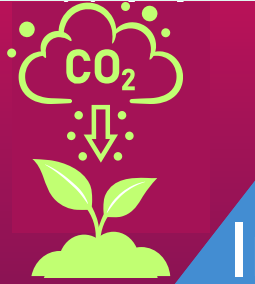
Effective for reports or other materials published on or after 1 January 2023

HIGHLIGHTS

Highlights the sector's role in combating climate change



Disclosures related to current operations for the low carbon transition



Includes a reference system for assessing organization's reporting.



MATERIAL TOPICS

ENVIRONMENT



- Biodiversity
- Air Emissions
- Water and Effluents
- GHG Emissions
- Climate adaptation, resilience and Transition
- Waste

SOCIAL



- Asset integrity and critical incident management
- Local communities
- Conflict and security
- Freedom of association and collective bargaining
- Land and resource rights
- Occupational health safety
- Closure and rehabilitation
- Rights of indigenous people
- Non-discrimination

GOVERNANCE

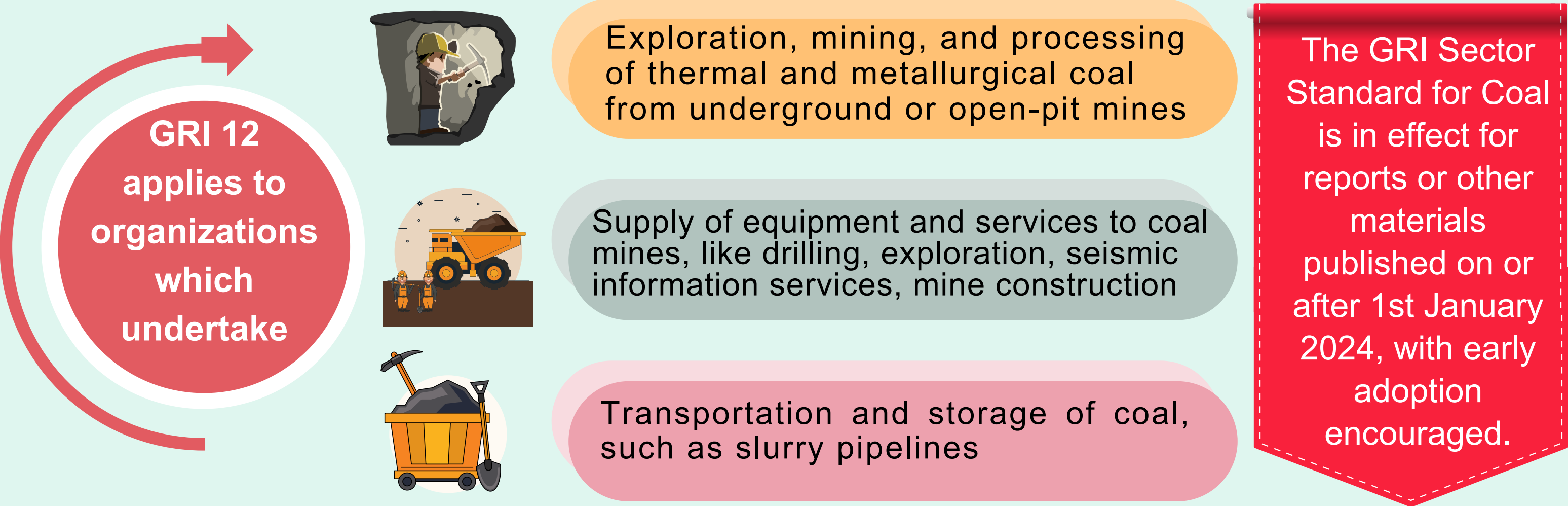


- Anti-competitive behavior
- Payments to governments
- Economic impacts
- Anti-corruption
- Employment Practices
- Public Policy



Sector Standards - Coal

The GRI Sector Standard for Coal provides authoritative guidance on how the sector reports its far-reaching impacts on the economy, environment and people. It encompasses reporting across a broad value chain of coal handling organizations.



Key Highlights



Addresses the issue of divestment from coal assets



Transition approach to mitigate impacts of mine closures on workers and local communities.



Delivers disclosures related to human rights, labor and safety



Encompasses reporting on economic impacts and contributions



Details aspects of organizations' approach to community engagement




Forward-looking reporting on climate change




Material Topics

Environment




- GHG emissions
- Climate adaptation, resilience, and transition
- Air emissions
- Biodiversity
- Waste
- Water and effluents

Social



- Child labor
- Local communities
- Land & resource rights
- Freedom of association and collective bargaining
- Non-discrimination and equal opportunity
- Forced labor and modern slavery
- Rights of indigenous people
- Conflict and security

Governance



- Anti corruption
- Payments to government
- Employment practices
- Closure & rehabilitation
- Occupational health and safety
- Asset integrity and critical incident management

Sector Standards - Agriculture, Aquaculture and Fishing

The Standard sets expectations for what all companies in Agriculture, Aquaculture and Fishing sectors need to report on their shared and specific impacts, on the economy, environment and people. It includes reporting on commonly used substances in these sectors namely pesticides, fertilizers, and antibiotics.



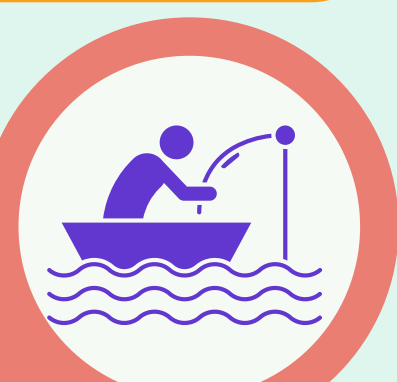
GRI 13 applies to Organization which undertake

Crop production



Animal production

Aquaculture



Fishing

The GRI 13 Sector Standard is effective for reports or other materials published on or after 1st January 2024, with early adoption encouraged.

The sector standard is beneficial for



Companies to Identify Material Topics and manage their impacts



Stakeholders and Investors to analyse risk and Opportunities in Sustainability reporting



Policy makers and Government Organizations to make decisions and guidance to responsible business

Material Topics



ENVIRONMENT

Emissions

Climate adaptation and resilience

Biodiversity

Natural ecosystem conversion

Soil health

Pesticides use

Water and effluents

Waste

Animal health and welfare



SOCIAL

Employment practices

Food security

Food safety

Local communities

Land and resource rights

Occupational health and safety

Forced / compulsory labor

Non-discrimination and equal opportunity

Child labor

Rights of indigenous peoples

Living income and living wage

Economic Inclusion



GOVERNANCE

Supply chain traceability

Anti-competitive behaviour

Public policy

Anti-corruption

Disclosures included in GRI Standards are reflective of the expectations of organizations in relation to responsible business practices and the management of their impacts.

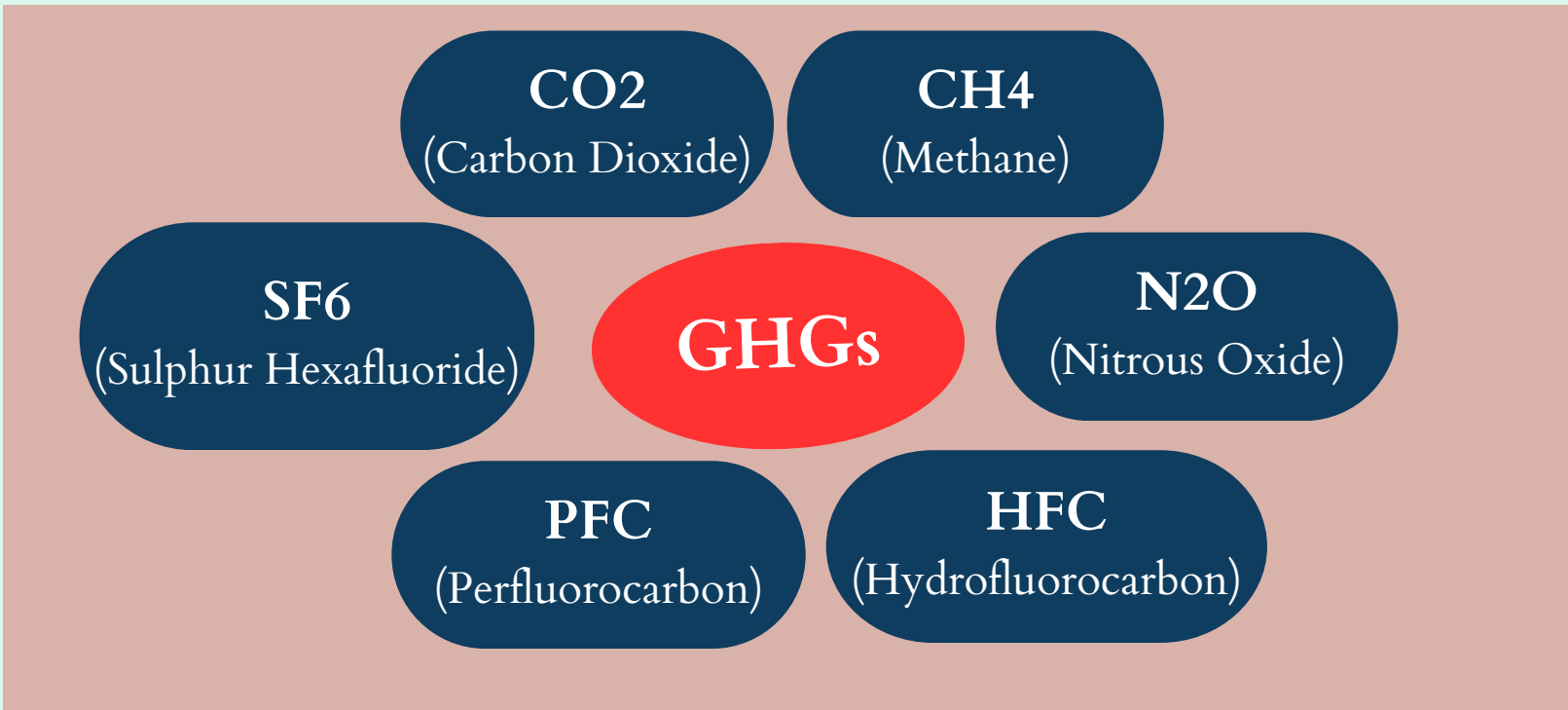
GRI 13 is for Achieving sustainable production on land and sea

WHAT IS GREENHOUSE GAS?

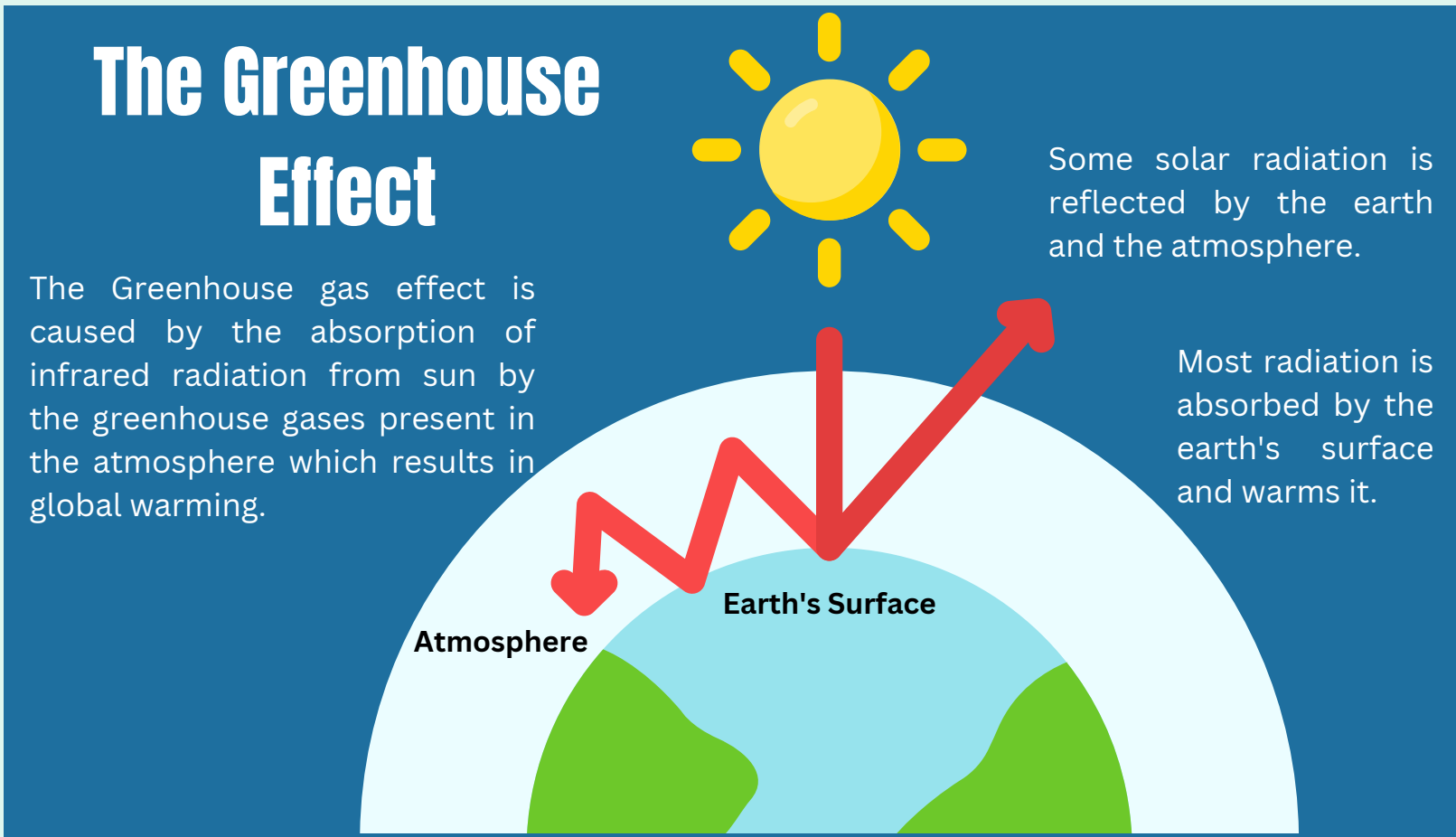
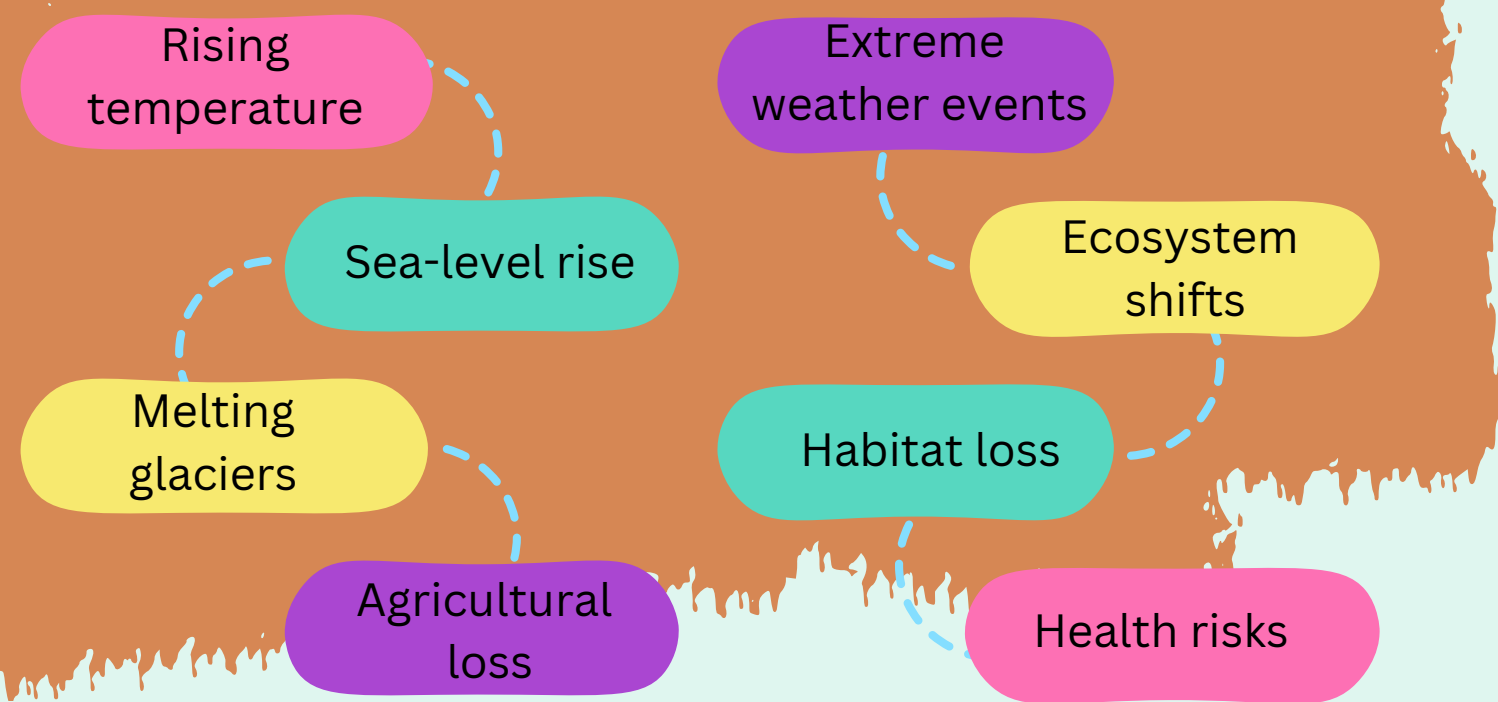
Greenhouse gases (GHG) are atmospheric gases created through both natural processes and human activities, which possess the ability to absorb infrared radiation. These gases act like a blanket, allowing sunlight to enter but preventing some of the heat from escaping back into space, leading to the greenhouse effect.

SOURCES OF GREENHOUSE GASES

Natural	Anthropogenic
<ul style="list-style-type: none">Volcanic eruptionDecomposition of organic matterNatural gas emissions from wetlands	<ul style="list-style-type: none">DeforestationBurning of fossil fuelsIndustrial processesAgricultural practices



IMPACTS OF RISING GHG



GLOBAL WARMING POTENTIAL (GWP)

It is a measure of the relative impact of a greenhouse gas compared with 1 ton of carbon dioxide (CO₂) over a specific timeframe, typically 100 years. It quantifies the potential of a particular greenhouse gas to contribute to global warming based on its ability to absorb and retain heat in the atmosphere.

CO₂ (Carbon dioxide)

CO₂ is the primary greenhouse gas responsible for long-term climate change, other gases such as methane (CH₄) and nitrous oxide (N₂O) have significantly higher warming potentials over shorter timescales. CO₂ serves as a baseline for comparison and is assigned value 1 in GWP.

CO₂e (Carbon dioxide equivalent)

CO₂eq or carbon dioxide equivalent is a metric used to express the warming potential of all greenhouse gases in relation to carbon dioxide. It provides a standardized measure that allows for the comparison of different gases based on their warming effects over a specific time period.

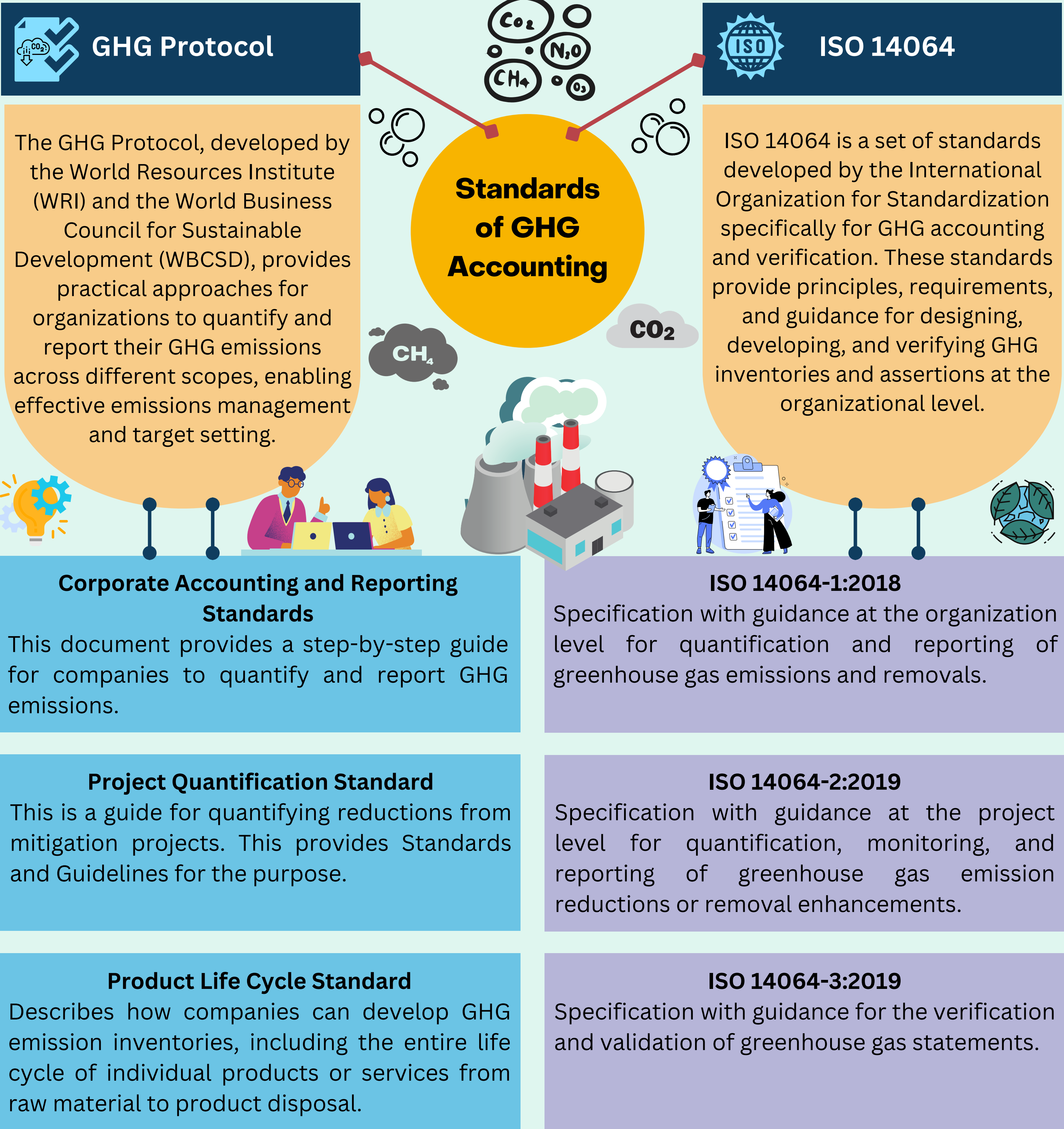
Greenhouse Gas Sink

Natural or human-made reservoirs absorb and store greenhouse gases from the atmosphere, helping to mitigate their concentration.

- Forests
- Oceans
- Wetlands

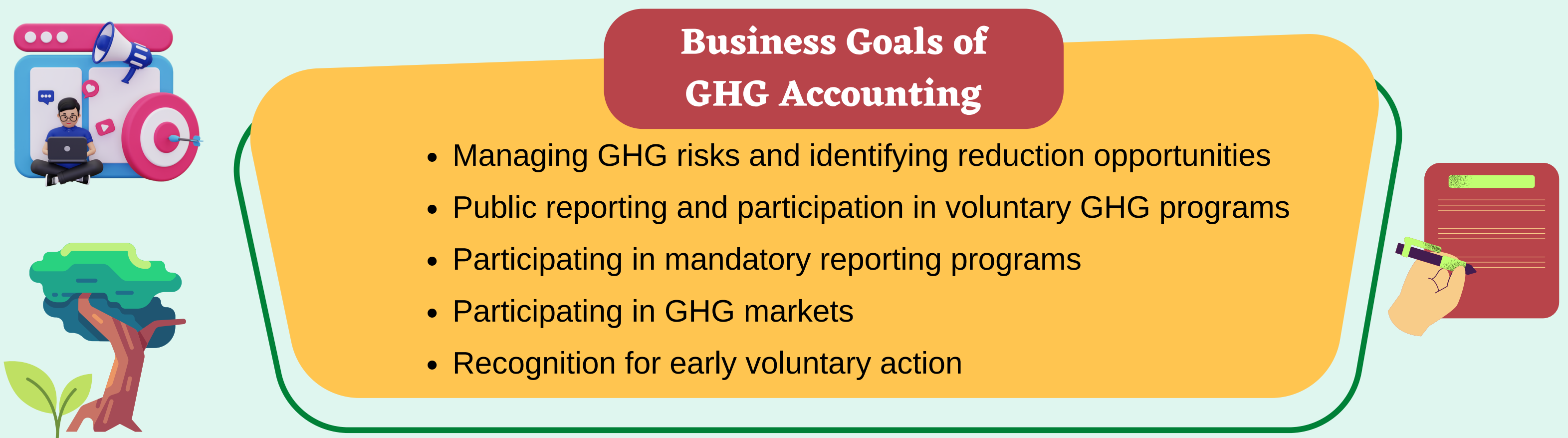
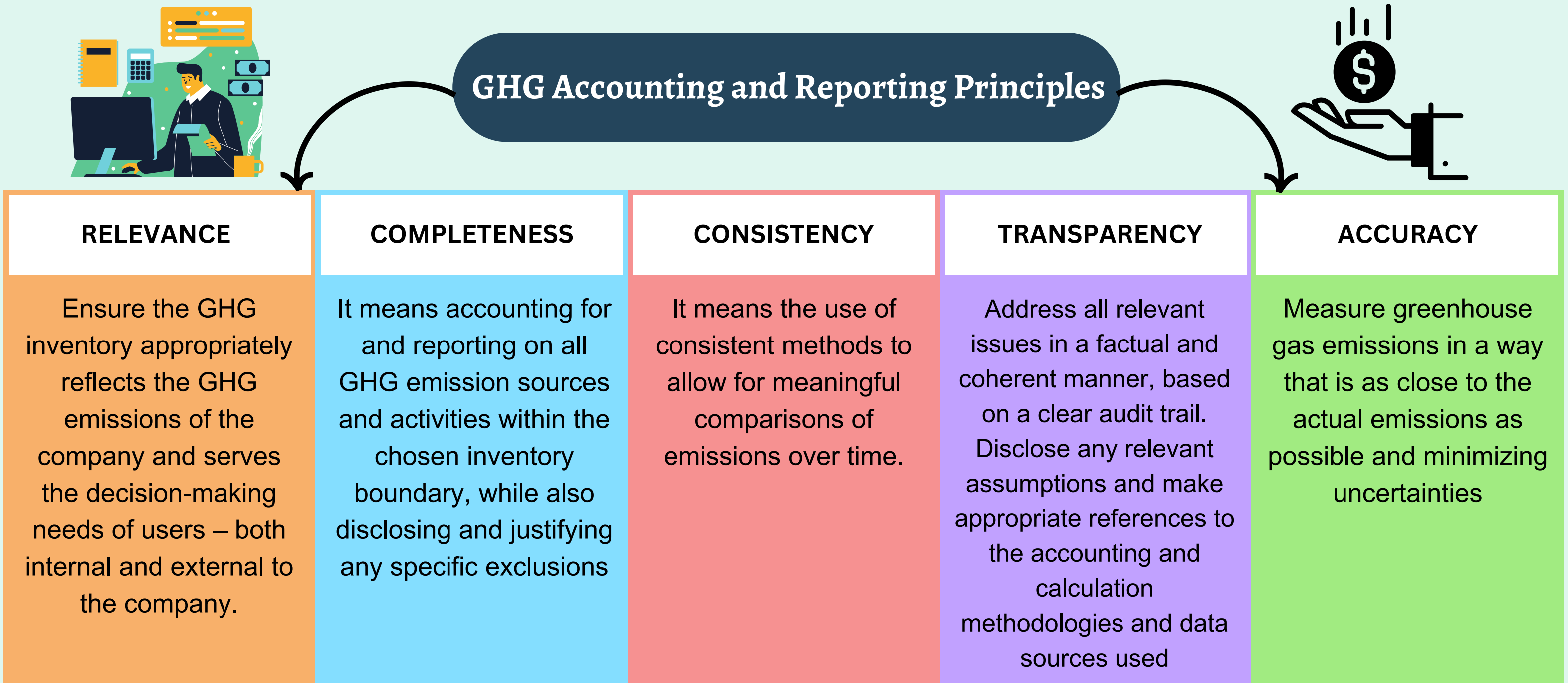
GHG	Lifetime (Years)	GWP values for a 100-year time horizon
CO ₂	Variable	1
CH ₄	10-12	28
N ₂ O	100-120	265
HFC	10-20	3790
PFC	50000	9810
SF ₆	3200	23500

The GHG Protocol and ISO 14064 are widely recognized international standards for greenhouse gas (GHG) accounting and reporting. These standards provide consistent and transparent methodologies for organizations to measure, report, and manage their GHG emissions. While the GHG Protocol is widely used as a practical framework for GHG accounting and reporting, ISO 14064 offers a more formalized and auditable approach.



What is Greenhouse Gas Accounting?

GHG accounting refers to the process of measuring and reporting greenhouse gas (GHG) emissions and removals associated with an organization's activities. It is a systematic approach to quantifying and tracking GHG emissions, which helps organizations understand their environmental impact and develop strategies to mitigate climate change.



Benefits of GHG Accounting

Help organizations to identify their major sources of emissions.

Help organizations to set targets for reducing their emissions.

It can help organizations track their progress in reducing their emissions.

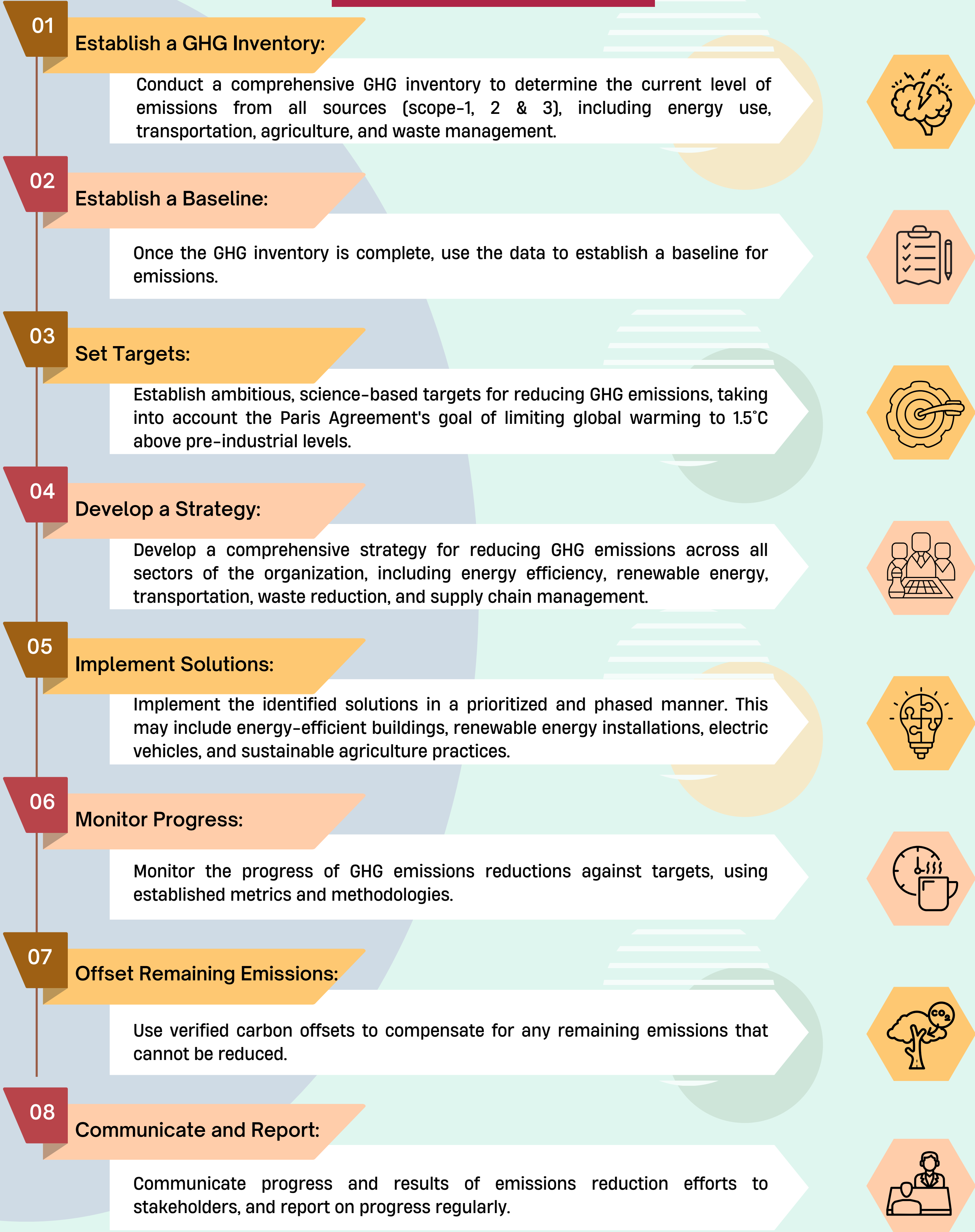
It can help organizations to comply with emissions regulations.

It can help organizations to communicate their environmental performance to stakeholders.

NET-ZERO EMISSIONS:

Net zero refers to the goal of achieving a balance between the amount of greenhouse gas (GHG) emissions released into the atmosphere and the amount of GHG emissions removed or offset from the atmosphere.

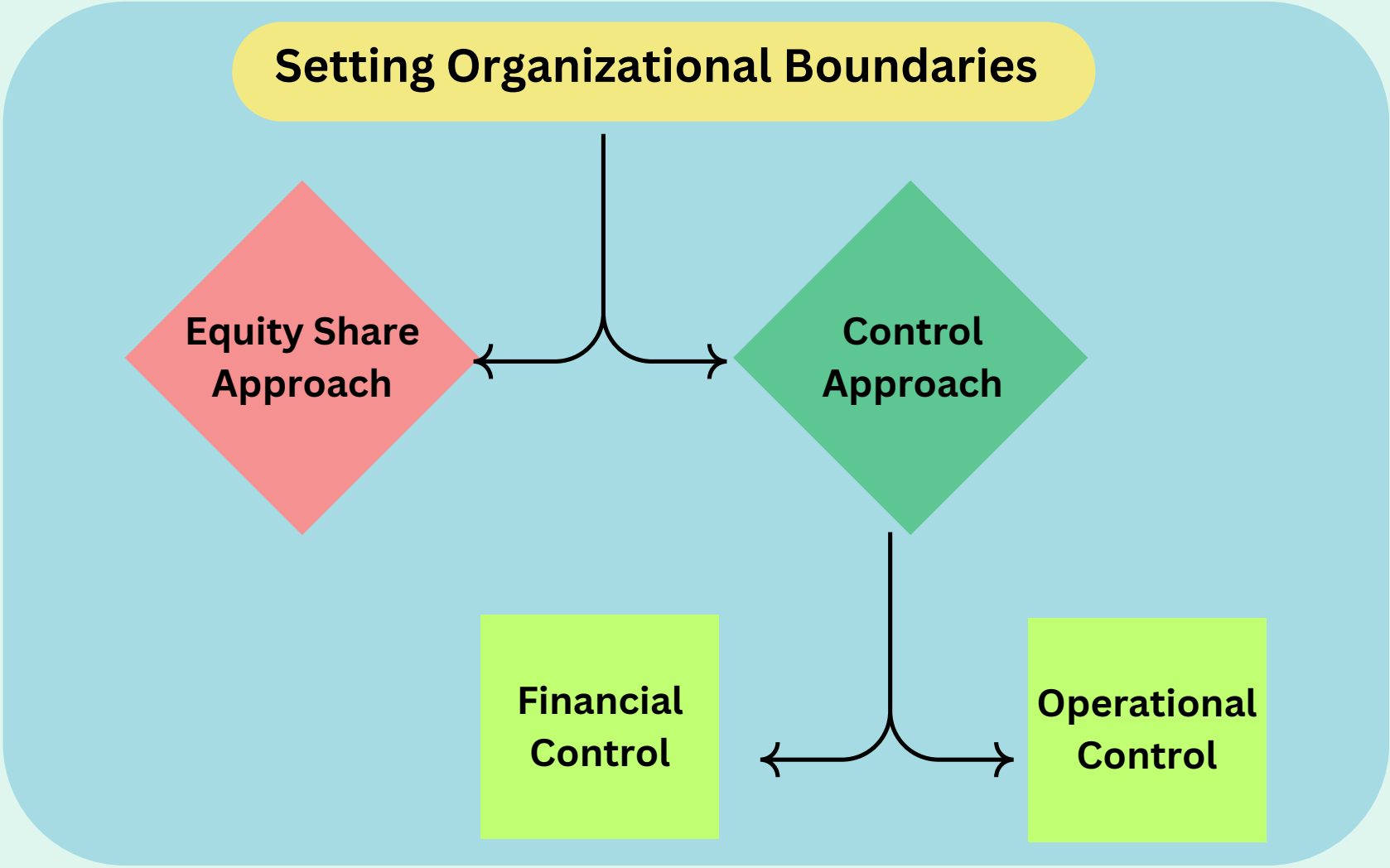
Steps to achieve net-zero:



Setting Organizational Boundaries for GHG accounting

Setting organizational boundaries in GHG protocols involves determining the overall scope and extent of the organization's activities and operations that will be included in the GHG inventory assessment. This includes identifying the subsidiaries, facilities, and entities that are considered part of the organization for reporting purposes.

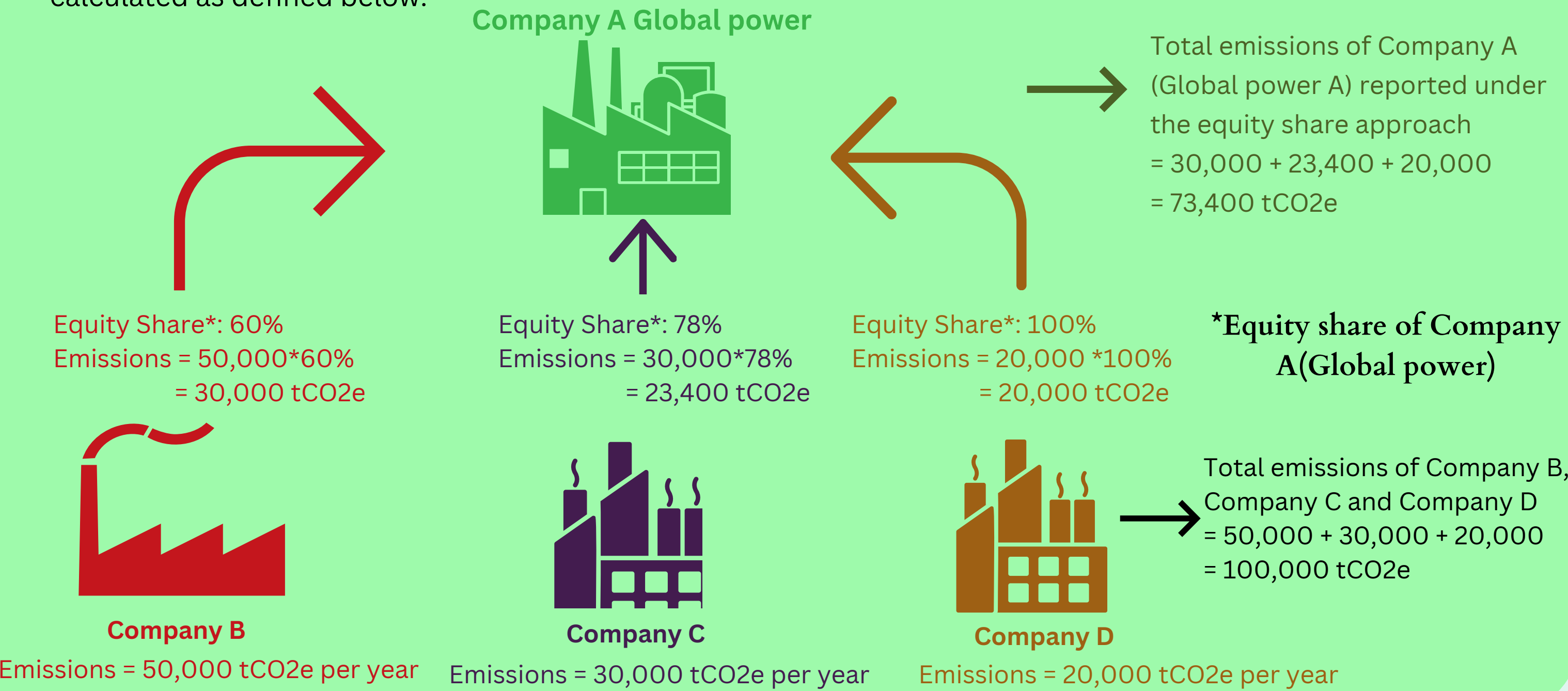
Two way approach of Setting Organizational Boundaries



Equity Share Approach:

- Under the equity share approach, a company accounts for GHG emission from operations according to its share of equity in the operation.
- The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.

Let us consider the following example to illustrate Equity share approach. Company A (Global Power) has three subsidiaries i.e., Company - B, C, and D. GHG Emission of Company A as per Equity share approach shall be calculated as defined below:




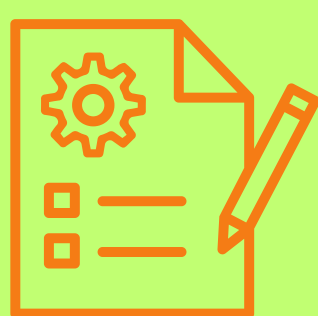
Setting Organizational boundary for GHG accounting – Control Approach

Let us understand the control approach where a company accounts for 100 percent of the GHG emissions from operations over which it has control. Control can be defined in either financial or operational terms. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational control or financial control criteria.



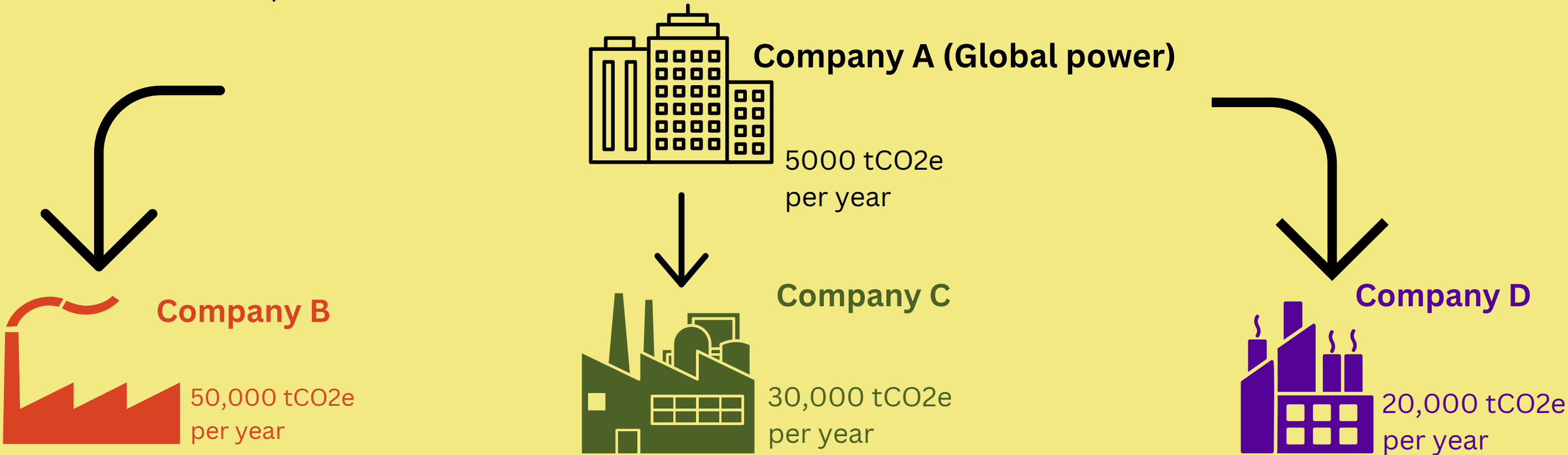
Financial Control Approach

Let us understand the criteria for Financial control approach* in GHG accounting.

- 
- Financial Control reflects activities where the organization has the ability to direct the financial policies of the activity with an interest in gaining economic benefits from the activity.
 - A company has financial control over an operation for GHG accounting purposes, if the operation is considered a subsidiary for the purposes of financial reporting, i.e. if the operation is fully consolidated in the reporting company’s financial statements.
- 

* based on GHG Protocol

Let us consider the following example to illustrate the accounting of emissions of Company A (Global Power) by Financial control approach . Here the Company A has its financial control over its subsidiaries C and D, but not B.



Total emissions of Company A (per year) before applying Financial control approach

= Emissions of Company A + Emissions of Company B + Emissions Of Company C + Emissions of Company D

= 5000 tCO2e + 50,000 tCO2e + 30,000 tCO2e + 20,000 tCO2e

= 105,000 tCO2e

Total emissions of Company A (per year) after applying Financial control approach		
Does Company A has Financial control over B ? No	Does Company A has Financial control over C? Yes	Does Company A has Financial control over D? Yes
Emissions: 0 tco2e	Emissions: 30,000 tco2e	Emissions: 20,000 tco2e

Therefore total emissions of company A (per year) reported under the financial control approach

= Emissions of Company A+ Emissions Of Company C + Emissions of Company D

= 5000 tCO2e + 30,000 tCO2e + 20,000 tCO2e

= 55,000 tCO2e

Emissions of Company B is excluded as Company A does not have financial control over B

Note: If the reporting company wholly owns all its operations, its organizational boundary will be the same whichever (Financial or Operational) approach is used.

TeamTech EHS is a premier EHSS&S (Environment Health Safety Sustainability and Social) consulting firm located in Bangalore, the renowned Silicon Valley of India. We specialize in delivering tailored solutions to meet your specific needs, encompassing EHSS&S training, audit services, compliance management, system design, and implementation support. It is worth mentioning that we have successfully collaborated with over 250 clients across seven countries in the past three years.

Furthermore, we have provided extensive ESG consulting support to more than 40 leading organizations in India, which includes 17 of India's top 1000 listed companies based on their market capitalization. We are a licensed assurance provider of AA1000AS (The AA1000 Assurance Standard), and we possess the necessary tools to offer comprehensive and reliable ESG assurance services to our Clients.

TeamTech EHS aspires to be the preferred one-stop Environment, Health and Safety, Social and Sustainability consulting service provider in India. We do this by operating with the highest ethical standards and delivering high-end expertise in the sustainability domain.

SERVICES WE OFFER



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- Trainings
- System development & Implementation support
- Reporting & Assurance
- Digital transformation

JOIN OUR MASTERCLASS ON BRSR, ESG & SUSTAINABILITY REPORTING

Business Responsibility and Sustainability Reporting (BRSR), Environmental, Social, and Governance (ESG), and Sustainability reporting are tools that organizations employ to showcase their dedication to environmental stewardship, social responsibility, and good governance, either as a leading practice or a legal mandate. In our master class, we endeavour to demystify the practical implications of BRSR/ESG/Sustainability, emphasizing its global significance and relevance within the Indian context. This encompasses a comprehensive coverage of the Business Responsibility and Sustainability Report (BRSR), mandated by SEBI for India's top 1000 listed companies by market capitalization. We will illustrate how this report aligns with ESG principles and underscore its role in facilitating effective stakeholder communication. Join us in this engaging event, designed to equip participants with the necessary skills to develop any of these reports. Together, let's explore and learn!

KEY CONTENTS

- Global & Indian Sustainability reporting landscape including legal mandates.
- ESG/ Sustainability report development based on Global Reporting Initiative (GRI) Standards.
- In-depth coverage of Business Responsibility and Sustainability Reporting (BRSR) by the Securities and Exchange Board of India (SEBI).
- NGBRCs Principles 01 to 09 & SEBI mandate for FY 22-23++
- Live demonstration of 1) how to carry out stakeholder engagement, 2) materiality assessment & 3) draft BRSR/ESG/Sustainability Reports
- Coverage of sustainability reporting standards such as PRI, Integrated Reporting (IR), SASB, and IFRS.
- Discussion on global ESG frameworks/ initiatives such as UN SDGs, TCFD, & CDP



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IMPACT LEADER



DR. YOGENDRA K SAXENA

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