EP®(GHG)

Examination Study Guide

Environmental Professional in Greenhouse Gas Management

A partnership between

Environmental Careers Organization (ECO) Foundation

and the

Greenhouse Gas Management Institute (GHGMI)

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www.eco.ca / www.ghginstitute.org

1. Purpose of This Guide

This study guide is intended to help candidates prepare for the EP®(GHG) certification examination. It provides an overview of the examination format, guidance on how to prepare effectively, illustrative sample questions, and information on special accommodations and next steps if your first attempt is unsuccessful.

The EP®(GHG) designation is offered through a partnership between ECO Foundation and the GHG Management Institute (GHGMI). It is a globally applicable professional certification that recognizes technical proficiency, ethical practice, and demonstrated competency across a defined set of knowledge and skill areas relevant to GHG management. The examination is one component of the full application process and is designed to confirm that candidates possess the breadth of knowledge expected of a credentialed GHG professional.

Please note that no official practice examination is available at this time. This guide, including the illustrative sample questions in Section 3, is an examination preparation tool provided to candidates.

Note	This study guide is for examination preparation purposes only. It does not replace the EP®(GHG) Applicant Guide or the EP®(GHG) Exam Guidelines for Applicants and Proctors, both of which contain essential information on application eligibility, scheduling, and examination logistics. Both documents are available from ECO Canada at eco.ca/greenhouse-gas-designations

2. About the Examination

2.1 Examination Format

The EP®(GHG) examination for each specialization consists of 50 multiple-choice knowledge questions and 10 additional questions covering professional ethics. Each question presents four answer options (A, B, C, or D). Most questions will have a single correct answer, with some questions being explicitly labeled to allow for selection of more than one answer (i.e., "choose all that apply"). Questions are drawn from across the full range of knowledge elements defined in the Global Occupational Standards for GHG Professionals, with the distribution of questions weighted to reflect the knowledge requirements of your selected specialization. See the EP®(GHG) Specialization Guide in selecting your specialization.

Examination Feature	Detail
Format	Fifty (50) multiple-choice knowledge questions, four options each. Ten (10) multiple-choice ethics questions, four options each. Sixty (60) questions total.
Delivery	Online, proctored at candidate's scheduling and location
Duration	Candidates have three (3) hours to submit their exam (refer to EP®(GHG) Exam Guidelines for Applicants and Proctors), see also special accommodations within next section.
Passing Grade	75% or greater (see also EP®(GHG) Exam Guidelines for Applicants and Proctors)
Attempts Permitted	Two attempts; second attempt available 3 months after failed attempt date. Three or more attempts available with an additional examination fee of CDN$50 per attempt.
Question Basis	Knowledge elements identified in Global Occupational Standards for GHG Professionals, weighted by selected specialization denoted in the EP®(GHG) Specialization Guide

2.2 Knowledge Areas Assessed

Examination questions are drawn from 19 knowledge areas defined in the Global Occupational Standards for GHG Professionals. The detailed elaboration of knowledge areas, their associated knowledge elements, and level of knowledge required is contained within the EP(GHG) Specialization Guide.

Candidates should familiarize themselves with the complete list and self-assess their proficiency against each element before scheduling their examination.

Reviewing the Global Occupational Standards, the EP®(GHG) Applicant Guide, and the Specialization Guide are the most important first step in targeted examination preparation.

Examination questions are drawn from the full set of knowledge elements (Annex A) but weighted toward the knowledge requirements of your chosen specialization. Simplified guidance on which knowledge elements to focus on for your chosen specialization is provided in Annex B.

3. How to Prepare for the Examination

3.1 Step 1: Self-Assessment Your Level of Knowledge

Once you have reviewed program guides, conduct an honest self-assessment of your proficiency against each knowledge element. For each element, ask yourself: Can I explain this concept clearly and accurately? Can I apply it to a realistic professional scenario? Could I distinguish the correct answer from three plausible but incorrect alternatives in an examination setting?

Where self-identified gaps exist, the training resources below are recommended.

Approved Training Organizations

The following organizations offer GHG training reviewed and approved for eligibility by the GHG Certification Committee. Training from these providers can also count toward the 24-hour GHG training eligibility requirement:

- Greenhouse Gas Management Institute (GHGMI) — www.ghginstitute.org
- Environmental Careers Organization (ECO) Canada — www.eco.ca
- United Nations Framework Convention on Climate Change (UNFCCC) — www.unfccc.int
- Food and Agricultural Organization of the United Nations (FAO) — www.fao.org
- World Resources Institute GHG Protocol Program (WRI/GHGP) — www.ghgprotocol.org
- International Organization for Standardization (ISO) — www.iso.org
- Partnership for Carbon Accounting Financials (PCAF) — www.carbonaccountingfinancials.com
- Accredited post-secondary institutions

Many other training resources and training providers also exist that provide quality information. Please contact us at Registrar@eco.ca if you have recommendations for additions to this list of approved training providers.

Key Reference Documents and Standards

Depending on the knowledge element, candidates may find it useful to review their knowledge familiarity with the following GHG program documents, which form the basis of many examination questions. Appendix A provides a table of the knowledge elements with associated links to the following documents:

- IPCC Guidelines for National Greenhouse Gas Inventories (2006 Guidelines and 2019 Refinement)
- GHG Protocol Corporate Accounting and Reporting Standard
- GHG Protocol Corporate Value Chain (Scope 3) Standard
- GHG Protocol Project Accounting Protocol and Guidelines
- GHG Protocol Policy and Action Standard
- ISO 14064-1:2018 — Organizational-level GHG quantification and reporting

- ISO 14064-2:2019 — Project-level GHG quantification, monitoring, and reporting
- ISO 14064-3:2019 — Validation and verification of GHG statements
- ISO 14067 — Carbon footprint of products
- ISO 14068-1:2023 — Climate change management: Transition to net zero
- SBTi Corporate Net-Zero Standard
- UNFCCC Enhanced Transparency Framework — Modalities, Procedures and Guidelines (MPGs)
- Paris Agreement Article 6 Rulebook (relevant CMA decisions)

Internet and AI-Assisted Learning

Candidates may supplement their preparation using internet resources and AI-based learning tools to explore unfamiliar concepts, test their understanding through self-quizzing, and review definitions and worked examples. These tools are most effective when used to deepen understanding of specific knowledge elements already identified as gaps, rather than as a substitute for engagement with the primary standards and guidelines listed above.

Professional Ethics

Candidates may prepare for the ethics questions by reviewing the information contained within the EP® Code of Ethics and GHGMI's Professional Code of Conduct.

3.2 Step 2: Work Through Illustrative Sample Questions

The following four sample questions are representative of the type, format, and higher level of difficulty of questions that appear on the EP®(GHG) examination. They are drawn from different knowledge areas and are designed to help candidates calibrate their examination readiness and understand the reasoning required to identify the correct answer.

Many examination questions present a realistic professional scenario and require the candidate to apply knowledge — not merely recall definitions. Reading all four options carefully before selecting an answer, and being alert to qualifiers such as "most appropriate," "best describes," or "most directly," is important, as these signal that more than one option may have partial merit.

Note	These five questions are illustrative only and do not constitute a comprehensive coverage of all topics that may be examined. No official practice examination is available at this time.

Sample Question 1

Knowledge Area: GHG Accounting, Reporting, and Assurance Principles — Allocational and Consequential Accounting Frameworks

A government energy ministry is evaluating two methodological approaches for assessing the GHG impact of a proposed national policy that would subsidise the electrification of residential heating systems, shifting households from natural gas furnaces to heat pumps powered by the national electricity grid.

An analyst proposes using a GHG inventory of the subsidised buildings to estimate the emissions change. A senior policy advisor argues that a consequential approach is more appropriate for this purpose. Which of the following most accurately explains why the senior advisor's position is methodologically justified?	
A)	A consequential approach is more appropriate because it uses current grid average emissions factors, which are more accurate and up to date than the marginal emissions factors used in attributional approaches, and therefore produces a more reliable estimate of the absolute emissions associated with the electrified heating systems.
B)	A consequential approach is more appropriate because the policy question requires an estimate of the change in total system emissions caused by the electrification policy — including the effect of weather and which power generation technologies operate at the margin in response to increased electricity demand.
C)	A consequential approach is more appropriate because it accounts for the embedded emissions in manufacturing and end-of-life disposal, whereas a GHG inventory approach considers only the emissions from electricity consumption.
D)	A consequential approach is more appropriate because inventory GHG accounting frameworks are designed exclusively for corporate GHG inventory reporting and do not apply to policy-level emissions assessments, making consequential analysis the only methodologically valid option available to a government ministry conducting a policy evaluation.
Correct Answer: B	*The fundamental distinction between GHG inventory and consequential accounting is the type of questions each is designed to analyze. GHG inventories allocate emissions to a product, activity, or entity — they answer the question "what share of global emissions are assigned to this entity or activity?" Consequential accounting methods analyse the change in total system emissions caused by an action, such as a policy — they answer the question "what happens to total emissions if we do this?" For a policy assessment, the relevant question is causally consequential: the ministry needs to know how total national emissions will change if the electrification subsidy is implemented, which requires understanding which generation technologies will supply the additional electricity demand at the margin — typically peaking plants. A GHG inventory approach using grid average factors would systematically misestimate the marginal climate impact of the policy by applying average rather than marginal emissions factors to the incremental electricity demand.* *Option A is incorrect because it inverts the relationship between the two approaches — consequential approaches use marginal emissions factors, not grid average factors. Option C is incorrect because both GHG inventory and consequential approaches could account for the emissions associated with product manufacturing and end-of-life emissions. Option D is incorrect because GHG inventories are not limited to corporate inventory reporting — they are used in product LCA, national inventories, and other contexts — and the choice between approaches for policy assessment is a methodological*

	question about which analytical framework best serves the decision, not a rule about which entities may use which approach.

Sample Question 2

Knowledge Area: Organizational, Project-Level, and Product-Level Quantification — Product Carbon Footprints and Biogenic Carbon

A packaging manufacturer is conducting a product carbon footprint study for paperboard cartons under ISO 14067. The carton is produced from sustainably certified virgin wood fibre. The study team is debating how to treat the biogenic carbon stored in the wood fibre — which was absorbed from the atmosphere during tree growth — and the biogenic CO_2 released when the carton is incinerated at end of life.

Which of the following most accurately describes the correct treatment of biogenic carbon flows under a cradle-to-grave PCF study conducted in accordance with ISO 14067?

A)	Biogenic carbon uptake during tree growth should be recorded as a negative emission (removal) at the point of raw material extraction, and biogenic CO_2 released at end-of-life incineration should be recorded as a positive emission, with the net result reflecting the change in biogenic carbon stocks across the product life cycle.
B)	Both the biogenic carbon uptake and the biogenic CO_2 release should be excluded from the PCF calculation entirely, on the grounds that ISO 14067 treats biogenic carbon flows as carbon-neutral by default — the CO_2 absorbed during growth is assumed to exactly offset the CO_2 released at end of life, and reporting both would double-count a flow that nets to zero.
C)	Biogenic CO_2 releases at end of life should be reported as GHG emissions in the PCF, but biogenic carbon uptake should not be reported as a removal, on the grounds that PCF studies are designed to quantify emissions impacts rather than removals, and including uptake would misrepresent the product as having a climate benefit it has not independently created.
D)	Biogenic carbon uptake during tree growth should be excluded from the PCF on the grounds that it occurs prior to the defined system boundary, while biogenic CO_2 at end-of-life incineration should be included as a positive emission, since it occurs within the cradle-to-grave boundary and represents a real atmospheric release regardless of its biological origin.

Correct Answer: A	*ISO 14067 requires that biogenic carbon flows be tracked and reported separately from fossil-derived GHG flows within a PCF study. Biogenic carbon absorbed from the atmosphere during biomass growth and stored in the product represents a temporary removal from the atmosphere — it is recorded as a negative emission at the point where carbon enters the product system. The CO_2 released when the product is incinerated at the end of life represents the return of that stored carbon to the atmosphere and is recorded as a positive emission. The net effect across the full cradle-to-grave boundary reflects the actual change in atmospheric carbon stocks associated with the product. This treatment is essential for correctly characterising wood-based products, which may store significant quantities of biogenic carbon for the duration of their useful life. Incineration, landfill, or recycling will have materially different implications for when and whether stored biogenic carbon is released.* *Option B is incorrect because the carbon-neutral assumption for biogenic materials is a simplification that ISO 14067 moves away from by requiring separate accounting of biogenic flows — the assumption that uptake and release cancel out is only valid at the system level if the timing, land management context, and permanence of carbon storage are all accounted for, which requires explicit reporting rather than exclusion. Option C is incorrect because ISO 14067 requires that both biogenic uptake and biogenic release be reported — excluding the uptake while including the release would systematically overstate the climate impact of bio-based products and produce an asymmetric and misleading PCF result. Option D is incorrect because the system boundary in a cradle-to-grave PCF explicitly includes raw material acquisition, and biogenic carbon uptake during tree growth is a flow that occurs within the upstream portion of the defined system boundary — it is not excluded on the grounds of occurring prior to the boundary.*

Sample Question 3

Knowledge Area: Mandatory and Voluntary GHG Reporting for Entities

A petrochemical company operating in a jurisdiction with a mandatory facility-level GHG reporting program is also voluntarily disclosing its corporate GHG inventory applying the GHG Protocol Corporate Standard.

The company's environmental compliance manager notes that the total Scope 1 emissions reported in the company's voluntary report are significantly lower than the sum of emissions reported across the company's facility-level mandatory report. The manager asks the GHG team to explain the discrepancy during the board meeting.

Which of the following is the most technically credible explanation for why a company's corporate Scope 1 inventory total might legitimately be lower than the aggregate of its mandatory facility-level reports?

A)	The GHG Protocol Corporate Standard permits companies to exclude minor emission sources below a materiality threshold from their Scope 1 inventory, whereas mandatory facility-level programs typically require reporting of all emission sources above a facility-level threshold that may be lower than the corporate materiality threshold, resulting in sources being captured in mandatory reports that are legitimately excluded from the corporate inventory.
B)	The corporate GHG inventory applies the operational control consolidation approach, which excludes emissions from facilities where the company holds financial control but does not have operational control, whereas the mandatory program requires reporting from all facilities within the jurisdiction where the company holds a permit or operating license regardless of the consolidation approach used for voluntary reporting.
C)	The corporate GHG inventory uses global warming potential values from a more recent IPCC assessment report than the values prescribed by the mandatory reporting program, and because the company operates processes that emit high-GWP fluorinated gases, the lower GWP values in the more recent assessment produce a lower aggregate CO_2e figure in the corporate inventory than the mandatory program's prescribed GWP values generate.
D)	The corporate GHG inventory reports emissions on a calendar year basis, whereas the mandatory program requires reporting on a fiscal year basis, and because the company's highest-emitting operational period falls in the first quarter of the calendar year, the timing difference systematically excludes a portion of high-emission activity from the corporate inventory reporting period.
Correct Answer: B	*The GHG Protocol Corporate Standard allows companies to consolidate emissions using different approaches and the choice of approach can materially affect which facilities and emission sources are included in the corporate inventory. Under the operational control approach, a company reports Scope 1 emissions only from facilities over which it has operational control, and excludes facilities in which another party holds operational control. Mandatory facility-level programs, by contrast, typically*

require the permit holder or licensed operator to report regardless of ownership structure, and do not make distinctions based on corporate consolidation approaches.

Option A is incorrect because while materiality thresholds do exist in corporate reporting, the GHG Protocol does not permit systematic exclusion of sources purely on materiality grounds in a way that would produce a significant aggregate difference — the standard requires companies to justify exclusions and confirm that excluded sources are not material to the total inventory, meaning a large systematic gap should not be attributable to materiality thresholds alone. Option C is incorrect because it describes a real phenomenon — GWP value differences between IPCC assessment cycles do affect CO_2e totals for high-GWP gas emitters — but these changes are generally small and so it is not the most technically credible primary explanation for a significant discrepancy. Option D is incorrect because while reporting period misalignment is a real operational consideration, it would produce a timing difference rather than a systematic directional discrepancy, and most corporate reporting programs require calendar year reporting that is aligned with or reconcilable to the mandatory program's reporting period.

Sample Question 4

Knowledge Area: GHG Inventory Compilation and Review — LULUCF / Carbon Stock Changes

A national inventory compiler is estimating CO_2 emissions and removals from the Forest Land Remaining Forest Land subcategory for a reporting year in which no significant deforestation occurred, but a large area of mature forest experienced a severe drought and associated bark beetle outbreak that caused widespread tree mortality across several regions. The compiler must decide how to treat the carbon stock change associated with the tree mortality event in the national inventory.

Which of the following most accurately describes the correct treatment?

A)	The carbon stored in the dead trees should be reported as an immediate CO_2 emission in the year of mortality, on the grounds that tree death constitutes a permanent loss of living biomass carbon stock and must be reflected as a release in the year the stock change occurs regardless of how long the dead wood takes to physically decompose.
B)	The carbon in trees killed by the outbreak should not be reported as an emission in the year of mortality but should instead be transferred from the living biomass carbon pool to the dead organic matter pool — specifically the deadwood and litter pools — and reported as CO_2 emissions in subsequent years as the dead organic matter decomposes according to applicable decay functions, with the full event disclosed in the inventory's documentation as a natural disturbance.
C)	The entire carbon stock of the affected forest area should be removed from the Forest Land Remaining Forest Land subcategory and reclassified as a land use change emission in the year of the outbreak, on the grounds that forest land that has experienced stand-replacing tree mortality no longer qualifies as functional forest land under IPCC definitions and must be reported under the land conversion categories.
D)	The carbon stock change associated with natural disturbances such as drought and pest outbreaks should be excluded from the national inventory entirely under the IPCC natural disturbance exemption, which permits countries to omit emissions from unmanaged disturbance events from their LULUCF totals provided the event is documented and its magnitude exceeds the country-specific significance threshold.
Correct Answer: B	*Under the IPCC guidelines for LULUCF, carbon pools are tracked across several stock categories including living biomass, dead organic matter (deadwood and litter), soil organic carbon, and harvested wood products. When trees die — whether from natural causes, pest outbreaks, or disturbance events — the carbon they contain does not immediately return to the atmosphere. Instead, it transfers from the living biomass pool to the dead organic matter pools, where it is released to the atmosphere gradually as the dead wood decomposes. The rate of decomposition depends on climate conditions, wood density, and other factors captured in applicable decay functions. The correct inventory treatment is therefore to record the stock transfer between pools in the year of mortality and*

apply decomposition rates to the dead organic matter pool in subsequent years to estimate annual CO_2 releases. This approach accurately reflects the physical dynamics of carbon release from dead biomass and avoids both the overstatement that would result from treating the full biomass carbon as an immediate emission and the understatement that would result from ignoring the mortality event entirely.

Option A is incorrect because recording the full biomass carbon as an immediate emission in the year of mortality misrepresents the physical timing of carbon release to the atmosphere — dead standing trees and fallen logs release carbon over years to decades of decomposition, and the IPCC pool-based accounting framework is specifically designed to track this gradual release rather than treating stock transfers between pools as atmospheric emissions. Option C is incorrect because tree mortality from a natural disturbance does not constitute a land use change — the land remains classified as Forest Land Remaining Forest Land provided it retains its forest character and is expected to regenerate; reclassification to a land conversion category would be inappropriate and would overstate land use change emissions. Option D is incorrect because IPCC guidelines allow for disclosure and in some cases, separate reporting of disturbance emissions rather than blanket exemption from inventory inclusion; the characterisation of a universal exemption permitting complete omission is inaccurate.

4. Special Accommodations and Examination Attempts

4.1 Number of Attempts and Fees

Candidates are permitted two (2) attempts at the EP®(GHG) examination. If unsuccessful on the first attempt, a second attempt may be scheduled after a period of three (3) months. This duration between attempts is to encourage applicants to study those areas where they may be deficient. If the applicant fails their second attempt, additional attempts may be purchased at a fee of CDN$50 per attempt. Subsequent attempts beyond the second are available under the same scheduling conditions.

Full details on examination scheduling, duration, proctor eligibility, passing grade requirements, and examination logistics are outlined in the EP®(GHG) Exam Guidelines for Applicants and Proctors document, which is provided to candidates upon entering the examination phase of the application process.

4.2 Refund Policy

The application fee is non-refundable once submitted. However, if a candidate does not pass the examination, partial refund provisions may apply in certain circumstances. Candidates are encouraged to review the refund policy in the EP®(GHG) Applicant Guide or contact certification staff at Registrar@eco.ca for information specific to their situation.

4.3 Time Extensions and Special Proctor Arrangements

GHGMI and the ECO Foundation are committed to equitable access to the EP®(GHG) examination for all candidates. Special accommodations are available for:

- Candidates for whom English is a second language (ESL), who may require additional examination time. Unfortunately, additional exam languages are not available at this time.
- Candidates with a documented disability requiring adjusted examination conditions or proctor arrangements.

Candidates requiring accommodations should contact certification staff at Registrar@eco.ca in advance of scheduling their examination to discuss available options. All accommodation requests are reviewed on a case-by-case basis. Full details are provided in the EP®(GHG) Exam Guidelines for Applicants and Proctors.

5. Further Resources

5.1 Good Multiple-Choice Examination Practices

The following strategies may assist candidates in maximizing their performance on the EP®(GHG) examination.

Before the Examination

- Review this study guide in its entirety, including the sample questions and Annex A.
- Allocate study time proportionally, spending more time on knowledge elements where your self-assessment identified gaps.
- Engage with primary source documents (e.g., the IPCC Guidelines, GHG Protocol standards) rather than relying solely on secondary summaries.
- For knowledge elements that are new to you, seek out a worked example or case study that illustrates the concept in a professional context.

During the Examination

- Read each question carefully and fully before reviewing the answer options. Identify precisely what the question is asking before considering the choices.
- Read all four answer options before selecting one. Eliminate clearly incorrect options to narrow your choice.
- Be alert to qualifiers such as “most appropriate,” “best describes,” “most directly,” or “primarily.” These signal that more than one option may have partial merit, but one is clearly superior in the context of the question.
- For scenario-based questions, identify the specific constraint or objective stated in the scenario before evaluating each option against it.
- If uncertain, use the process of elimination to narrow to two options, then select the one most consistent with recognized standards and established good practice.
- Manage your time. If a question is difficult, mark it and return after completing questions you can answer with confidence.

5.2 Contact Information

Registrar	Registrar@eco.ca
Phone	+1-800-890-1924
ECO Website	www.eco.ca/greenhouse-gas-designations
GHGMI Website	www.ghginstitute.org/professional-certification/
Mailing Address	ECO Canada, #400 – 105 12th Avenue SE, Calgary, AB T2G 1A1, Canada

Annex A: List of Knowledge Areas, Knowledge Elements, and GHG Management Program References

The following table reproduces all knowledge areas and their associated knowledge elements from the Global Occupational Standards for GHG Professionals. Examination questions may be drawn from any of these elements. Candidates should consider which elements are most critical for their specialization by reviewing Annex B. Selected study references are provided but should not be interpreted to be a complete or sufficient basis of study for addressing each knowledge element.

Knowledge Area	Knowledge Element	Select Key References
Climate Science and GHG Principles	Fundamentals of climate change science, including greenhouse gas behavior, radiative forcing, global warming potentials, and the technological, biological, and physical systems affecting emissions and removals.	IPCC AR6 Working Group I Report (Physical Science Basis) IPCC 2006 Guidelines Vol. 1: General Guidance and Reporting 2019 Refinement to the 2006 IPCC Guidelines
	Climate change science in relevant sectors and sector-specific impacts, and the advancements of climate change science and its impact on the sector.	IPCC AR6 Working Group II Report (Impacts, Adaptation & Vulnerability) IPCC AR6 Working Group III Report (Mitigation of Climate Change)
	Direct and indirect emissions and the use of scopes in GHG emission categorization.	GHG Protocol Corporate Accounting and Reporting Standard GHG Protocol Scope 2 Guidance ISO 14064-1 — Organizational GHG Quantification and Reporting
	GHG data quality principles (accuracy, comparability, completeness, consistency, relevance, and transparency) and their application in voluntary and mandatory compliance contexts.	GHG Protocol Corporate Accounting and Reporting Standard IPCC 2006 Guidelines Vol. 1: General Guidance ISO 14064-1 — Organizational GHG Quantification and Reporting
	How emissions and removals are reflected in GHG accounting frameworks and the role of quantification in supporting mitigation analysis, policy development, and progress tracking.	GHG Protocol Corporate Accounting and Reporting Standard IPCC 2006 Guidelines Vol. 1: General Guidance and Reporting
	Common GHG accounting principles such as accuracy, comparability, completeness, consistency, relevance, and transparency as	IPCC 2006 Guidelines Vol. 1: General Guidance

GHG Accounting, Reporting, and Assurance Principles	applied to GHG emissions quantification and reporting.	GHG Protocol Corporate Accounting and Reporting Standard ISO 14064-1 — Organizational GHG Quantification and Reporting Examining the impact of GHG accounting principles
	The requirements of GHG accounting frameworks and standards (GHG Protocol, ISO 14064, IPCC guidelines).	ISO 14064-1 — Organizational GHG Quantification and Reporting GHG Protocol Corporate Accounting and Reporting Standard 2019 Refinement to the 2006 IPCC Guidelines
	Allocational and consequential accounting frameworks and their differences and similarities, including types of accounting within those frameworks.	GHG Protocol Product Life Cycle Accounting and Reporting Standard ISO 14044 — Environmental Management: Life Cycle Assessment The differences between allocational and consequential greenhouse gas accounting
	Key project/intervention GHG accounting concepts such as conservativeness, functional equivalence, leakage, additionality, dynamic/static, and permanence, and how they relate to baseline scenario selection.	ISO 14064-2 — Project-Level GHG Quantification, Monitoring and Reporting GHG Protocol for Project Accounting Offsetguide.org
	Voluntary and mandatory GHG programs, systems, and accounting frameworks, and their requirements.	GHG Protocol Standards and Guidance Overview Verra Verified Carbon Standard (VCS) Program ISO 14064-1 — Organizational GHG Quantification and Reporting Global Occupational Standards for GHG Professionals—Annex B
Organizational, Project-Level, and Product-Level Quantification	The goals, scopes, limitations, and interpretations of GHG quantification at the organizational, project, and product levels, including Product Carbon Footprints (PCF) and life cycle assessments (LCAs).	ISO 14064-1 — Organizational GHG Quantification and Reporting ISO 14064-2 — Project-Level GHG Quantification, Monitoring and Reporting ISO 14067 — Carbon Footprint of Products

		GHG Protocol Product Life Cycle Accounting and Reporting Standard
GHG Inventory Compilation and Review	IPCC methodological Tier 1-3 approaches, selection of appropriate methods, application of default and country-specific emission factors, and sourcing, validating, and processing activity data across key sectors (Energy, IPPU, Agriculture, LULUCF, Waste).	IPCC 2006 Guidelines for National Greenhouse Gas Inventories 2019 Refinement to the 2006 IPCC Guidelines
	Techniques to maintain methodological consistency across years and document recalculations in line with IPCC guidance.	IPCC 2006 Guidelines Vol. 1: General Guidance (Chapter 5 — Time Series Consistency) 2019 Refinement to the 2006 IPCC Guidelines, Vol. 1
	Proficiency with IPCC Inventory Software, UNFCCC Common Reporting Tables, and Biennial Transparency Reports (BTRs).	IPCC Inventory Software (2006 IPCC Guidelines) UNFCCC Biennial Transparency Reports and Common Reporting Tables
	How to conduct key category analysis using level and trend assessments, apply uncertainty assessment methods, and interpret results to guide decision-making and prioritize inventory improvements.	IPCC 2006 Guidelines Vol. 1: General Guidance (Chapter 4 — Methodological Choice and Identification of Key Categories) 2019 Refinement to the 2006 IPCC Guidelines, Vol. 1 Chapter 1
	Technical nuances such as fugitive emissions in oil and gas, carbon stock changes in land use, and methane recovery in waste management.	IPCC 2006 Guidelines Vol. 2: Energy (Fugitive Emissions) IPCC 2006 Guidelines Vol. 4: Agriculture, Forestry and Other Land Use IPCC 2006 Guidelines Vol. 5: Waste
GHG Modeling and Scenario Analysis	The principles and applications of GHG models, scenario analysis, and projection tools.	IPCC AR6 Working Group III Report (Mitigation of Climate Change) ISO 14097 — Framework and Principles for Assessing and Reporting Investments and Financing Activities Related to Climate Change
	How to use GHG models, scenario analysis, and projection tools to generate emissions forecasts, evaluate mitigation pathways, and support	TCFD Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities

	strategic decision-making, while considering assumptions, uncertainties, and limitations.	ISO 14097 — Framework and Principles for Assessing and Reporting Investments IPCC AR6 Working Group III Report (Mitigation of Climate Change) ICAT Assessment Toolbox
GHG Verification and Validation Concepts and Techniques	Verification principles such as impartiality, evidence-based approaches, fair presentation, documentation, and conservativeness.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements
	Verification/validation activities and techniques, including risk assessment, data and information sampling, and assessment of GHG data control systems.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements ISO 14065 — Requirements for Greenhouse Gas Validation and Verification Bodies
	Levels of assurance and materiality.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements
	How to identify sufficiency of objective evidence.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements
	Requirements for recordkeeping and documentation during the inventory process to ensure outputs are prepared for auditor activities and third-party requests.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements ISO 14064-1 — Organizational GHG Quantification and Reporting
	The process for completing a verification.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements ISO 14065 — Requirements for GHG Validation and Verification Bodies
Data Quality, Uncertainty, Management, and Risk	Inventory and project/intervention data quality management, uncertainty assessment, and materiality thresholds to ensure integrity in GHG data, measurements, and verification outcomes, along with QA/QC procedures and technical review outcomes.	IPCC 2006 Guidelines Vol. 1: General Guidance (Chapter 3 — Uncertainties/ Chapter 6 — QA/QC) ISO 14064-1 — Organizational GHG Quantification and Reporting GHG Protocol Corporate Accounting and Reporting Standard

	Basic statistical concepts and quantitative methods to interpret GHG data, evaluate uncertainty, and analyze large datasets.	IPCC 2006 Guidelines Vol. 1: General Guidance (Chapter 3 — Uncertainties) 2019 Refinement to the 2006 IPCC Guidelines, Vol. 1
	The professional responsibility to maintain data integrity and security, with specialized roles requiring advanced certifications.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements ISO/IEC 27001 — Information Security Management
Mandatory and Voluntary GHG Reporting for Entities	How GHG reporting supports climate risk disclosure, corporate sustainability, and environmental compliance, including coordination of reports and responses to relevant programs or stakeholders.	TCFD Recommendations Report GHG Protocol Corporate Accounting and Reporting Standard ISSB IFRS S2 Climate-related Disclosures
GHG Market Mechanisms and Environmental Claims	The principles behind carbon trading, credits, and offsetting, including their methodological foundations.	GHG Protocol for Project Accounting Verra Verified Carbon Standard (VCS) Program Gold Standard for the Global Goals www.OffsetGuide.org
	Environmental product declarations (EPDs), claims, and labels, and how they inform GHG reporting and sustainability communication.	ISO 14025 — Environmental Labels and Declarations: Type III Environmental Declarations ISO 14067 — Carbon Footprint of Products GHG Protocol Product Life Cycle Accounting and Reporting Standard
	The role of Energy Attribute Certificates (EACs) in GHG accounting to support accurate, transparent, and auditable disclosures.	GHG Protocol Scope 2 Guidance RE100 Technical Criteria What is GHG Accounting? series
	The principles and rules governing GHG markets and mechanisms, including how to account for mitigation outcomes or carbon credits, track legal transfer of emissions reductions, and prevent double counting.	UNFCCC Article 6 of the Paris Agreement — Overview World Bank — Emissions Trading in Practice: A Handbook on Design and Implementation
	Eligibility criteria for GHG projects and credits, including additionality, permanence, and leakage.	ISO 14064-2 — Project-Level GHG Quantification, Monitoring and Reporting

		GHG Protocol for Project Accounting Verra VCS Program — Methodology Requirements www.OffsetGuide.org
	The principles, rules, and standards governing GHG markets in renewable energy accounting (e.g., RECs, RE100), environmental commodities, and voluntary initiatives.	GHG Protocol Scope 2 Guidance RE100 Technical Criteria UNFCCC Article 6 — Cooperative Approaches
Systems Thinking and Sustainability Integration	How GHG emissions and removals relate to organizational activities, supply chains, and broader sustainability objectives.	GHG Protocol Corporate Value Chain (Scope 3) Standard GHG Protocol Scope 3 Calculation Guidance
National GHG Measurement, Reporting, and Verification	The essential methodological components of IPCC Guidelines for National Inventories, including source category descriptions, methodological choices, recalculation justifications, and QA/QC procedures.	IPCC 2006 Guidelines for National Greenhouse Gas Inventories 2019 Refinement to the 2006 IPCC Guidelines
	The structure and purpose of the Paris Agreement, UNFCCC reporting requirements, Modalities, Procedures and Guidelines (MPGs) for the Enhanced Transparency Framework (ETF), and IPCC Guidelines.	UNFCCC Enhanced Transparency Framework — Modalities, Procedures and Guidelines Paris Agreement (UNFCCC) UNFCCC Biennial Transparency Reports
	QA/QC procedures including internal checks, third-party reviews, archiving, and continuous improvement mechanisms as outlined in the MPGs and IPCC guidelines.	IPCC 2006 Guidelines Vol. 1: General Guidance (Chapter 6 — QA/QC and Verification) UNFCCC Enhanced Transparency Framework — Modalities, Procedures and Guidelines 2019 Refinement to the 2006 IPCC Guidelines, Vol. 1
	How GHG inventories interface with international climate policy reporting, including NDCs, LEDS, BTRs, and National Communications.	UNFCCC NDC Registry UNFCCC Enhanced Transparency Framework — Modalities, Procedures and Guidelines Paris Agreement (UNFCCC)
Sector-Specific GHG Sources and	Processes, activities, and technologies that generate emissions or removals within a sector.	IPCC 2006 Guidelines — Sector Volumes (Energy, IPPU, AFOLU, Waste)

Quantification Methods		2019 Refinement to the 2006 IPCC Guidelines
	Options for methodologies, monitoring, estimation, sampling, and calibration procedures, and trade-offs between options within a sector.	IPCC 2006 Guidelines — Sector Volumes (Energy, IPPU, AFOLU, Waste) 2019 Refinement to the 2006 IPCC Guidelines IPCC Emission Factor Database (EFDB)
Direct Measurement	Laboratory procedures for analyzing material or fuel composition to derive emissions factors, including quality control of sampling and analysis.	IPCC 2006 Guidelines Vol. 2: Energy (Stationary Combustion — Appendices on Laboratory Methods) ISO 29541 — Solid Mineral Fuels: Determination of Total Carbon, Hydrogen and Nitrogen
	Types of meters and analyzers used to measure flow rates and determine gas or material composition; typically required in technical or engineering roles.	IPCC 2006 Guidelines Vol. 2: Energy (Chapter 2 — Stationary Combustion) US EPA Continuous Emission Monitoring Systems (CEMS) Technical Guidance
Control of IT Systems for Information Security	Information system controls and IT security measures applicable to data management in GHG reporting environments.	ISO/IEC 27001 — Information Security Management Systems NIST Cybersecurity Framework
Auditing and Controls for GHG Data	Auditing methodologies, sampling techniques, control systems, IT and information security, and the evaluation of material anomalies in the context of GHG data systems.	ISO 14064-3 — Specification with Guidance for the Verification and Validation of GHG Statements ISO 19011 — Guidelines for Auditing Management Systems ISO 14065 — Requirements for GHG Validation and Verification Bodies
GHG Target Setting	Engaging in target-setting activities, including within contexts where accounting methods or voluntary/regulatory frameworks are changing, including understanding indirect emissions (e.g., Scope 3) as they relate to target-setting practices.	SBTi Corporate Net-Zero Standard ISO 14068-1 — Climate Change Management: Transition to Net Zero GHG Protocol Corporate Value Chain (Scope 3) Standard
Equity and Stakeholder Engagement	How GHG activities affect communities and stakeholders, applying principles of equity and inclusion to identify risks, co-benefits, and opportunities for socially responsible climate action.	Gold Standard — Safeguarding Principles and Requirements UN Sustainable Development Goals Verra VCS — Social and Environmental Safeguards

	Approaches for integrating stakeholder perspectives, traditional knowledge, and priorities into GHG reporting, engagement, and decision-making processes.	Gold Standard — Stakeholder Consultation Requirements UN Sustainable Development Goals UNFCCC Enhanced Transparency Framework — Modalities, Procedures and Guidelines
Mitigation and Decarbonization Strategies	Mitigation and decarbonization strategies, including energy efficiency, renewable energy deployment, fuel switching, carbon capture and storage (CCS), and nature-based solutions.	IPCC AR6 Working Group III Report (Mitigation of Climate Change) IEA Net Zero by 2050: A Roadmap for the Global Energy Sector IPCC Special Report on Global Warming of 1.5°C
	How decarbonization strategies are applied in corporate GHG inventories and net-zero planning in alignment with recognized standards (e.g., SBTi Corporate Net Zero Standard, ISO 14068-1:2023).	SBTi Corporate Net-Zero Standard ISO 14068-1 — Climate Change Management: Transition to Net Zero GHG Protocol Corporate Accounting and Reporting Standard

Annex B: Knowledge Level Requirements by Specialization

The table below indicates the level of knowledge expected for each knowledge element under each EP®(GHG) specialization. "High" indicates a deeper level of understanding is expected; "Low" indicates foundational awareness is sufficient. "TBD" indicates the level has not yet been formally determined for that specialization.

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
Climate Science and GHG Principles	Fundamentals of climate change science, including greenhouse gas behavior, radiative forcing, global warming potentials, and the technological, biological, and physical systems affecting emissions and removals.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Climate change science in relevant sectors and sector-specific impacts, and the advancements of climate change science and its impact on the sector.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Direct and indirect emissions and the use of scopes in GHG emission categorization.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	GHG data quality principles (accuracy, comparability, completeness, consistency, relevance, and transparency) and their application in voluntary and mandatory compliance contexts.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	How emissions and removals are reflected in GHG accounting frameworks and the role of quantification in supporting mitigation analysis, policy development, and progress tracking.	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
GHG Accounting, Reporting, and Assurance Principles	Common GHG accounting principles such as accuracy, comparability, completeness, consistency, relevance, and transparency as applied to GHG emissions quantification and reporting.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	The requirements of GHG accounting frameworks and standards (GHG Protocol, ISO 14064, IPCC guidelines).	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Allocational and consequential accounting frameworks and their differences and similarities, including types of accounting within those frameworks.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Key project/intervention GHG accounting concepts such as conservativeness, functional equivalence, leakage, additionality, dynamic/static, and permanence, and how they relate to baseline scenario selection.	Low	Low	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Voluntary and mandatory GHG programs, systems, and accounting frameworks, and their requirements.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
Organizational, Project-Level, and Product-Level Quantification	The goals, scopes, limitations, and interpretations of GHG quantification at the organizational, project, and product levels, including Product Carbon Footprints (PCF) and life cycle assessments (LCAs).	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
GHG Inventory Compilation and Review	IPCC methodological Tier 1–3 approaches, selection of appropriate methods, application of default and country-specific emission factors, and sourcing, validating, and processing activity data across key sectors (Energy, IPPU, Agriculture, LULUCF, Waste).	**High**	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Techniques to maintain methodological consistency across years and document recalculations in line with IPCC guidance.	**High**	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Proficiency with IPCC Inventory Software, UNFCCC Common Reporting Tables, and Biennial Transparency Reports (BTRs).	Low	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	How to conduct key category analysis using level and trend assessments, apply uncertainty assessment methods, and interpret results to guide decision-making and prioritize inventory improvements.	**High**	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Technical nuances such as fugitive emissions in oil and gas, carbon stock changes in land use, and methane recovery in waste management.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
GHG Modeling and Scenario Analysis	The principles and applications of GHG models, scenario analysis, and projection tools.	Low	Low	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	How to use GHG models, scenario analysis, and projection tools to generate emissions forecasts,	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
	evaluate mitigation pathways, and support strategic decision-making, while considering assumptions, uncertainties, and limitations.										
GHG Verification and Validation Concepts and Techniques	Verification principles such as impartiality, evidence-based approaches, fair presentation, documentation, and conservativeness.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Verification/validation activities and techniques, including risk assessment, data and information sampling, and assessment of GHG data control systems.	Low	Low	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Levels of assurance and materiality.	Low	Low	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	How to identify sufficiency of objective evidence.	Low	Low	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Requirements for recordkeeping and documentation during the inventory process to ensure outputs are prepared for auditor activities and third-party requests.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	The process for completing a verification.	Low	Low	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
Data Quality, Uncertainty, Management, and Risk	Inventory and project/intervention data quality management, uncertainty assessment, and materiality thresholds to ensure integrity in GHG data, measurements, and verification outcomes,	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
	along with QA/QC procedures and technical review outcomes.										
	Basic statistical concepts and quantitative methods to interpret GHG data, evaluate uncertainty, and analyze large datasets.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	The professional responsibility to maintain data integrity and security, with specialized roles requiring advanced certifications.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
Mandatory and Voluntary GHG Reporting for Entities	How GHG reporting supports climate risk disclosure, corporate sustainability, and environmental compliance, including coordination of reports and responses to relevant programs or stakeholders.	**High**	**High**	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD
GHG Market Mechanisms and Environmental Claims	The principles behind carbon trading, credits, and offsetting, including their methodological foundations.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Environmental product declarations (EPDs), claims, and labels, and how they inform GHG reporting and sustainability communication.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	The role of Energy Attribute Certificates (EACs) in GHG accounting to support accurate, transparent, and auditable disclosures.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
	The principles and rules governing GHG markets and mechanisms, including how to account for mitigation outcomes or carbon credits, track legal transfer of emissions reductions, and prevent double counting.	Low	Low	**High**	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Eligibility criteria for GHG projects and credits, including additionality, permanence, and leakage.	Low	Low	**High**	Low	TBD	TBD	TBD	TBD	TBD	TBD
	The principles, rules, and standards governing GHG markets in renewable energy accounting (e.g., RECs, RE100), environmental commodities, and voluntary initiatives.	Low	Low	**High**	Low	TBD	TBD	TBD	TBD	TBD	TBD
Systems Thinking and Sustainability Integration	How GHG emissions and removals relate to organizational activities, supply chains, and broader sustainability objectives.	**High**	**High**	**High**	Low	TBD	TBD	TBD	TBD	TBD	TBD
National GHG Measurement, Reporting, and Verification	The essential methodological components of IPCC Guidelines for National Inventories, including source category descriptions, methodological choices, recalculation justifications, and QA/QC procedures.	**High**	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	The structure and purpose of the Paris Agreement, UNFCCC reporting requirements, Modalities, Procedures and Guidelines (MPGs) for the Enhanced Transparency Framework (ETF), and IPCC Guidelines.	Low	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
	QA/QC procedures including internal checks, third-party reviews, archiving, and continuous improvement mechanisms as outlined in the MPGs and IPCC guidelines.	Low	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	How GHG inventories interface with international climate policy reporting, including NDCs, LEDS, BTRs, and National Communications.	Low	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
Sector-Specific GHG Sources and Quantification Methods	Processes, activities, and technologies that generate emissions or removals within a sector.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Options for methodologies, monitoring, estimation, sampling, and calibration procedures, and trade-offs between options within a sector.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
Direct Measurement	Laboratory procedures for analyzing material or fuel composition to derive emissions factors, including quality control of sampling and analysis.	**High**	**High**	**High**	**High**	TBD	TBD	TBD	TBD	TBD	TBD
	Types of meters and analyzers used to measure flow rates and determine gas or material composition; typically required in technical or engineering roles.	Low	Low	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
Control of IT Systems for Information Security	Information system controls and IT security measures applicable to data management in GHG reporting environments.	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
Auditing and Controls for GHG Data	Auditing methodologies, sampling techniques, control systems, IT and information security, and the evaluation of material anomalies in the context of GHG data systems.	Low	Low	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD
GHG Target Setting	Engaging in target-setting activities, including within contexts where accounting methods or voluntary/regulatory frameworks are changing, including understanding indirect emissions (e.g., Scope 3) as they relate to target-setting practices.	**High**	**High**	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
Equity and Stakeholder Engagement	How GHG activities affect communities and stakeholders, applying principles of equity and inclusion to identify risks, co-benefits, and opportunities for socially responsible climate action.	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Approaches for integrating stakeholder perspectives, traditional knowledge, and priorities into GHG reporting, engagement, and decision-making processes.	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD
	Mitigation and decarbonization strategies, including energy efficiency, renewable energy	Low	Low	Low	Low	TBD	TBD	TBD	TBD	TBD	TBD

Knowledge Area	Knowledge Element	Knowledge Level by Specialization									
		GHG Inventory (Org.)	GHG Inventory (National)	GHG Project Dev. & Reporting	Verification & Auditing	GHG Mitigation	GHG Data & Methods	Standards, Policy & Regs	Climate Strategy	Climate Finance	Capacity Builder
Mitigation and Decarbonization Strategies	deployment, fuel switching, carbon capture and storage (CCS), and nature-based solutions.										
	How decarbonization strategies are applied in corporate GHG inventories and net-zero planning in alignment with recognized standards (e.g., SBTi Corporate Net Zero Standard, ISO 14068-1:2023).	**High**	**High**	Low	**High**	TBD	TBD	TBD	TBD	TBD	TBD

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