Gold Standard for the Global Goals

METHODOLOGY TOOL
GS4GG PAA MT400-06

COMMON PRACTICE ANALYSIS

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SUMMARY

This methodological tool establishes a standardized, quantitative, and simplified procedure for conducting common practice analysis under GS4GG. It provides a systematic framework for evaluating the market penetration of a proposed technology, measure, or practice as part of the additionality assessment.

Key features of this methodological tool include:

- Quantitative F_{max} Framework: Introduces a scientifically robust framework for determining the Common Practice Threshold (F_{max}). This framework utilizes Technology Maturity Categories (TMC), grounded in technology adoption S-curves (Diffusion of Innovations theory), replacing indicative values with evidence-based thresholds.
- Stock and Flow Approaches: Provides detailed guidance on the selection and application of Stock-Based (cumulative diffusion) and Flow-Based (rate of adoption) assessment approaches, allowing for accurate analysis of diverse market dynamics and technology lifecycles.
- Differentiated Thresholds: Incorporates differentiated Fmax thresholds, including higher thresholds for Least Developed Countries (LDCs) and Small Island Developing States (SIDS), to account for greater systemic barriers to technology diffusion in these regions.
- Methodology-Level Analysis: Includes an optional provision for conducting a time-bound (3-year validity) common practice analysis ex-ante at the methodology level, streamlining the process and increasing efficiency for activity participants.

- Standardized Definitions: Mandates standardized definitions for key parameters (e.g., Target Market Size, Applicable Geographical Area) and the use of an "Attribute Matrix" for the objective and reproducible identification of Similar Activities.

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1| INTRODUCTION

1.1 | Scope and Purpose

1.1.1 | This methodological tool establishes the mandatory requirements and a standardized, step-by-step procedure for conducting a common practice analysis under the Gold Standard for the Global Goals (GS4GG).

1.1.2 | The purpose of this tool is to provide a quantitative and systematic framework for evaluating the market penetration of a proposed technology, measure, or practice within a defined geographical area, thereby supporting the demonstration of additionality.

1.1.3 | This tool aims to provide a clear, quantitative, and systematic approach, minimising subjective judgment for both project activity and methodology developers.

1.1.4 | The tool utilizes a unified Market Penetration Approach and includes provisions for:

a. Standardized definitions,
b. Detailed guidance on Stock-Based and Flow-Based assessment approaches,
c. A quantitative framework for determining the Common Practice Threshold (F_{max}) based on Technology Maturity Categories (TMC),
d. An optional provision for conducting a time-bound common practice analysis at the methodology level.

1.2 | Application and Exceptions

1.2.1 | All GS4GG methodologies requiring a common practice analysis shall apply this tool by default.

1.2.2 | Exceptions to this requirement are permitted only under the following specific circumstances:

a. **Inapplicability of the Tool:** If the nature of the technology, measure, or practice is such that the Market Penetration Approach defined in this tool cannot be reasonably applied, methodology developers may propose the use of the latest version of the relevant approved Methodological tool: Common practice analysis under the PACM (A6.4). The methodology developer shall provide a compelling and verifiable justification demonstrating why this GS4GG tool is inappropriate.
b. **PACM, Article 6.4 Methodologies:** When applying an A6.4 approved methodology under GS4GG, the common practice tool or approach recommended within that approved methodology may be applied.

1.2.3 | Notwithstanding the above, Gold Standard retains the discretion to develop or approve a methodology-specific approach for common practice analysis if warranted by the specific context of the activity and/or Sector.

1.3 | Entry into Force

1.3.1 | This document enters into force on 22/12/2025.

2| DEFINITIONS

2.1.1 | The following standardized definitions shall apply to ensure consistent application of this tool.

Table 1. Terms and Definitions

Term	Definition
Activity Developer/ Project developer	Leading individual or entity that is responsible for the development of a Project Activity that is seeking, or has achieved, Certification by the Gold Standard.
Applicable Geographical Area (AGA)	The spatial scope within which prevalence or diffusion of a technology, measure or practice is assessed in the context of common practice analysis. By default, this is the Host Country. Methodology developers may define a sub-national or multi-national area only if justified by specific, predefined criteria (see Section 7.2).
Attribute Matrix	A standardized table required in GS4GG methodologies that lists the objective technical characteristics used to systematically identify 'Similar' activities within the Target Market (see Section 7.4).
Common Practice Factor (F)	A unitless quantitative ratio representing the Market Penetration of the Similar Technology/Measure/Practice relative to the Target Market Size.
Common Practice Threshold (F_{max})	The maximum allowable Common Practice Factor (F). If F ≥ F_{max}, the activity is considered common practice. (see Section 7.6)
Flow-Based Approach (Time-Bound)	An assessment of market penetration based on the uptake, sales, or capacity additions within a defined recent period (the Reference Period). This approach measures the rate of adoption or current market momentum (see Section 7.5).
Indicator of Common Practice (P)	A quantitative metric used to assess market penetration, expressed either as the number of units (count-based) or as capacity/output (capacity/output-based).
Least Developed Countries / Small Island Developing	Least Developed Countries and Small Island Developing States, as recognized by the United Nations

States (LDCs/SIDS)	
Market Penetration	The diffusion of a specific technology, measure, or practice (Similar Activity) in relation to the Target Market Size
Similar Technology/ Measure/ Practice (Similar Activity)	Activities within the Target Market that match all characteristics defined in the methodology's Attribute Matrix. a. Technology: This refers to the application of hardware, software or technical processes, such as solar PV systems, carbon-capture units, direct air capture systems, pyrolysis reactors or advanced heat-recovery methods, that directly reduce emissions and/or increase removals; b. Measure: This denotes engineered or operational interventions, such as fuel switching from coal to natural gas, installation of energy-management systems, afforestation/reforestation; c. Practice: This covers routine procedural or behavioural approaches, such as scheduled maintenance protocols, operator training for efficient equipment use, leak-detection and repair programs, or sustainable land-management practices.
Stock-Based Approach	An assessment of market penetration based on the cumulative installed base or operational units at a specific point in time. This approach measures the total *cumulative diffusion* (see Section 7.5).
Target Market Size (P_{all}):	The total existing market (stock or flow) within the Applicable Geographical Area that delivers the same output or service as the proposed activity. (see Section 7.3).
Technology Maturity Category (TMC):	A classification reflecting the stage of adoption of a technology, measure, or practice within the market (e.g., Innovator, Early Adopter, Early Majority), used to determine the Common Practice Threshold (F_{max}).

3| APPLICABILITY

3.1.1 | This methodological tool is a mandatory requirement for GS4GG methodologies that include a common practice analysis for the demonstration of additionality.

3.1.2 | By applying this tool, methodologies shall use a single, standardized Market Penetration approach. To adopt this tool, a methodology must reference it and specify the following parameters, as detailed in Section 7|:

a. The Indicator of Common Practice (P) and the specific metric.

b. The assessment approach (either Stock-Based or Flow-Based), along with a justification based on the criteria in section 7.5 |:

i. Stock-Based: Assessing the cumulative installed base or operational units at a specific point in time.

ii. Flow-Based (Time-Bound): Assessing the uptake, sales, or capacity additions within a defined recent period (e.g., the most recent three years). If Flow-Based, the Reference Period shall be defined.

c. The definition of the Applicable Geographical Area (AGA).

3.1.3 | The objective criteria for defining the 'target market size'.

d. The Attribute Matrix for identifying Similar Activities.

e. The Common Practice Threshold (F_{max}), determined using the quantitative framework in Section 7.6 |.

4| NORMATIVE REFERENCES

4.1.1 | This document refers to the following:

a. GS4GG Methodology Standard:

i. Requirements for additionality demonstration

b. PACM (A6.4):

i. Methodological tool: Common practice analysis (v01.0)

5| GENERAL PRINCIPLES AND REQUIREMENTS

5.1 | Principles

5.1.1 | The general principles described in the most recent version of the "Methodology Standard: Requirements for additionality demonstration" shall apply to the application of this tool.

5.2 | General Requirements

5.2.1 | The common practice analysis shall use the most recent and authoritative data available. The collected data shall not be older than three years prior to the submission of the PDD for Validation to VVB, unless the methodology specifies and justifies otherwise.

5.2.2 | Activities previously registered under the GS4GG, Article 6.4 mechanism, Clean Development Mechanism (CDM) or similar voluntary carbon market scheme, as well as activities substantially supported by international climate finance or Official Development Assistance (ODA) dedicated to climate mitigation, shall be excluded from the calculation of the penetration of Similar Activities (P_{sim}) to ensure the analysis reflects autonomous market adoption.

5.3 | Provision for Methodology-Level Common Practice Analysis

5.3.1 | The methodology developers may opt to conduct a streamlined, time-bound common practice analysis *ex-ante* at the methodology level.

5.3.2 | **Requirements for Methodology-Level Analysis:**

a. The methodology shall clearly define the scope of the analysis (Technology, AGA, Target Market Size, Attribute Matrix) following the standardized definitions provided in this tool.

b. The analysis shall calculate the Common Practice Factor (F) using verifiable market data.

c. The methodology shall specify the determined Common Practice Threshold (F_{max}) based on the framework detailed in Section 7.6 |.

5.3.3 | **Validity Period:**

a. The results of the methodology-level analysis shall be valid for a fixed period of three (3) years from the methodology's publication date. A longer validity period, up to a maximum of five (5) years, may be applied if the methodology developer provides justification demonstrating that the analysis relies on official national statistics, international surveys (e.g., DHS, LSMS), or other authoritative data sources with an update cycle longer than three years. The validity period should align with the typical update cycle of these primary data sources.

b. Upon expiration of the validity period, the methodology shall be revised to include an updated analysis, or the responsibility for conducting the common practice analysis reverts to the activity developers.

5.3.4 | **Application by Activity Developers:**

a. If the applicable methodology includes a valid methodology-level common practice analysis relevant to the proposed activity, and the analysis concludes that $F < F_{max}$, the activity developer is exempt from conducting the stepwise approach in Section 6|.

b. This exemption applies only if the activity is submitted for validation within the stated validity period.

c. The activity developer shall reference the methodology-level analysis in the PDD, confirming that the proposed activity falls within the defined scope.

5.4 | Provision for Deemed Additionality for Nascent Technologies (TMC-1)

5.4.1 | If a GS4GG methodology explicitly classifies a technology, measure, or practice as TMC-1 (Innovator/Nascent) in accordance with Section 7.6, the following provision applies:

a. **Deemed Additionality for Small-Scale and Micro-Scale Activities:** Activities that meet the GS4GG definitions for Small-Scale or Micro-Scale activities and apply the TMC-1 classified technology are deemed additional.

b. **Requirements for Activity Developers:** Activity developers applying this provision are exempt from conducting the stepwise common practice analysis (Section 6) and other additionality

demonstration requirements (e.g., investment analysis, barrier analysis), provided that:

i. The proposed activity falls within the scope of the methodology's TMC-1 classification (including the defined AGA).

ii. The activity is submitted for validation within the validity period of the methodology's classification (as per Section 5.3).

iii. The PDD clearly references the methodology's TMC-1 classification and confirms the activity's scale eligibility.

6| STEPWISE APPROACH FOR MARKET PENETRATION ANALYSIS

6.1 | General requirement

6.1.1 | Activity developers shall follow the below step-wise procedure if applicable methodology doesn't include a valid, time bound methodology-level common practice analysis as described in Section 5.3 |.

6.2 | Step 1: Define Analysis Parameters

6.2.1 | The activity developer shall specify the following parameters as prescribed by the applicable methodology:

a. The Indicator of Common Practice (P) and the corresponding Metric.

b. The chosen assessment approach (Stock-Based or Flow-Based), including the reference period if the Flow-Based approach is selected.

c. The Applicable Geographical Area (AGA) and its classification (LDC/SIDS or Other).

d. The Common Practice Threshold (F_{max}).

6.3 | Step 2: Determine the Target Market Size (P_{all})

6.3.1 | The Target Market Size within the AGA shall be determined by strictly adhering to the objective technical and regulatory criteria specified in the applicable methodology (refer to Section 7.3 |).

a. P_{all} shall be calculated consistently with the selected approach (Stock or Flow).

b. Calculate the value of the Indicator of Common Practice representing the total Target Market Size (P_{all}).

c. Clearly document all data sources, calculations, and assumptions used to derive P_{all}.

6.4 | Step 3: Determine the Penetration of Similar Activities (P_{sim})

6.4.1 | The activities within the Target Market that qualify as Similar Activities shall be identified by applying the Attribute Matrix specified in the applicable methodology (refer to Section 7.4 |).

a. P_{sim} shall be calculated consistently with the selected approach (Stock or Flow).

b. Calculate the total Indicator value attributable to these Similar Activities (P_{sim}), ensuring the exclusion of prior activities relying on carbon revenue as per Section 5.2 |.

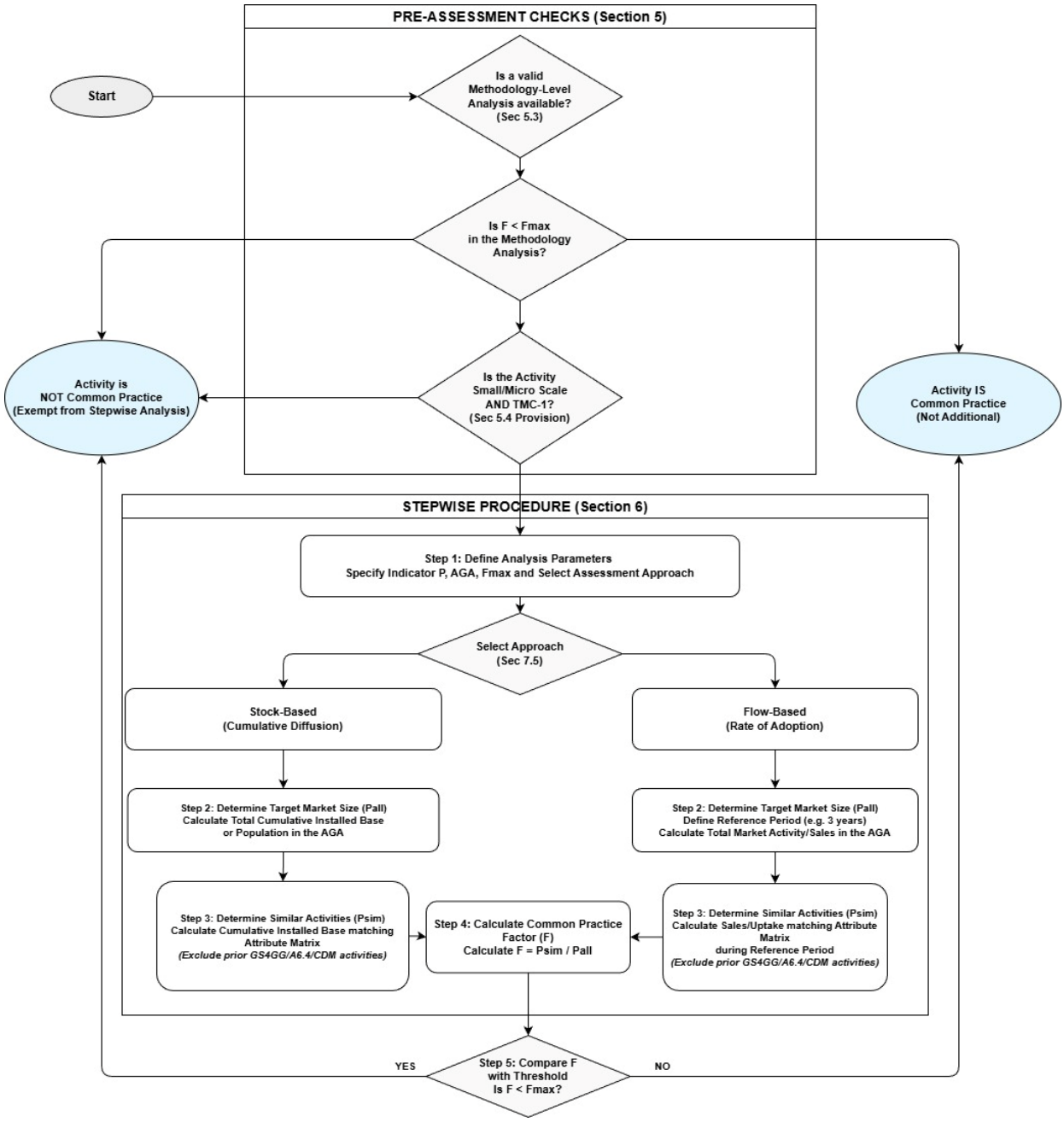

Figure 1. Flowchart of the common practice analysis steps

6.5 | Step 4: Calculate the Common Practice Factor (F)

6.5.1 | Calculate the Common Practice Factor (F), representing the market penetration, as follows:

$$F = {}^{P_{sim}}/_{P_{all}} \qquad \text{(Equation 1)}$$

6.6 | Step 5: Compare F with the Threshold (F_{max})

6.6.1 | Compare the calculated Common Practice Factor (F) with the Common Practice Threshold (F_{max}) specified in the methodology.

a. If F ≥ F_{max}, the proposed activity shall be considered common practice and is therefore not additional.

b. If F < F_{max}, the proposed activity is "not common practice."

7| REQUIREMENTS FOR METHODOLOGIES

7.1 | General Requirements

7.1.1 | This section provides mandatory requirements for methodology developers to ensure the objective, standardized, and transparent application of this tool.

7.2 | Defining the Applicable Geographical Area (AGA)

7.2.1 | Methodology developers shall define the AGA. The default shall be the Host Country.

7.2.2 | Deviation from the Host Country default is permissible only if rigorously justified by the following predefined criteria:

a. Sub-national: If the relevant regulatory framework, market conditions, or essential infrastructure (e.g., electricity grid) are distinctly localised and isolated from national conditions regarding the specific activity. This includes significant, verifiable differences in market conditions, infrastructure access, or fuel/resource availability between urban, peri-urban, and rural areas that fundamentally affect the adoption of the technology, measure, or practice. For nature-based activities i.e. Land Use and Forests (LUF) or Blue Carbon and Freshwater activities such as Agriculture, Forestry, and Other Land Use, the AGA may be defined by distinct ecological zones (e.g., specific ecosystems, climatic regions, or potential vegetation types) if these zones dictate the applicability and adoption dynamics of the measure or practice.

b. Multi-national/Regional: If the activity operates within a fully integrated regional market with a unified regulatory framework and free movement of the relevant goods/services (e.g., a regional power pool).

7.3 | Defining the Target Market Size (P_{all})

7.3.1 | Methodologies shall establish a precise, objective procedure for calculating the Target Market Size (P_{all}), defined as the total market providing the same output or service.

7.3.2 | The definition of the Target Market Size shall be based exclusively on:

a. **Technical Applicability:** Physical constraints such as geographical, climate conditions, or required infrastructure compatibility. For nature based activities (e.g. LUF/AFOLU/BCFW), this shall include specific criteria regarding suitable ecological conditions, current land use, and, where relevant to the intervention's scope, land tenure or management types (e.g., smallholder farms vs. commercial agriculture).

b. **Regulatory Boundaries:** Legal restrictions pertaining to the implementation of the technology, measure, or practice.

7.3.3 | **Requirement for Spatial Precision in LUF/AFOLU/BCFW:** For LUF/AFOLU/BCFW methodologies, the definition of $Pall$ requires high spatial precision. Methodologies shall mandate the use of robust data (e.g., spatial data, land use maps, remote sensing analysis) to ensure that $Pall$ accurately reflects the area technically suitable and legally permissible for the activity, explicitly excluding areas where the activity cannot take place (e.g., existing forests in A/R, unsuitable land types).

7.3.4 | The definition shall **not** include subjective or difficult-to-verify factors such as socioeconomic characteristics, cultural acceptance, or perceived financial feasibility, as these are addressed through the investment or barrier analysis components of additionality demonstration.

7.3.5 | **Provision for Socioeconomic Segmentation:** Methodology developers may define a segmented Target Market Size based on socioeconomic characteristics (e.g., income levels or wealth quintiles) only if the following conditions are met:

a. **Structural Market Divide:** It is rigorously justified that affordability is a primary structural barrier defining the accessible market, creating structurally distinct markets with significantly different adoption dynamics (e.g., common in household-level technologies).

b. **Data Objectivity:** The segmentation is based on objective, verifiable, and recent data from authoritative sources (e.g., official national statistics, recognized international surveys).

c. **Clear Definition:** The methodology clearly defines the objective criteria for the targeted segment.

7.4 | Defining Similar Activities (P_{sim}) using the Attribute Matrix

7.4.1 | Methodologies shall include an Attribute Matrix to systematically define Similar Activities. This matrix is intended to eliminate ambiguity and subjective interpretation regarding similarity.

7.4.2 | The Attribute Matrix shall specify the objective, technical characteristics that an activity within the Target Market shall possess to be considered 'Similar'. These characteristics shall be fundamentally based on the core elements of the mitigation action, such as:

a. The specific technology, measure, or practice employed.

b. The primary resource utilized (e.g., energy source, feedstock type).

7.4.3 | The Attribute Matrix shall ensure that Similar Activities ($Psim$) only include instances where the proposed technology, measure, or practice has been actively adopted. Autonomous processes that may lead to a similar outcome but do not involve the active implementation of the proposed intervention (e.g., autonomous natural regeneration when the proposed activity is active reforestation) shall be excluded from $Psim$. Such autonomous processes are appropriately addressed within the baseline scenario determination, not the common practice analysis (See Annex, Section 1).

7.4.4 | Factors related to scale (capacity/output), market conditions, policy incentives, or investment costs shall **not** be used as differentiating attributes, as these variables do not alter the fundamental nature of the technology/measure/practice being assessed for prevalence.

Table 2: Example Attribute Matrix Structure (Illustrative):

Attribute	Description	Required for Similarity (Yes/No)
Technology Principle	e.g., Gasification	Yes
Primary Resource	e.g., Rice Husks	Yes
Output Scale	e.g., > 10 MW (Scale is not a differentiator)	No

7.5 | Defining the Indicator (P) and Assessment Approach

7.5.1 | The methodology shall specify the indicator (P) (count-based or capacity/output-based) and the specific metric (e.g., MW, tonnes). Capacity/output-based indicators shall be prioritized if significant variance exists in the scale of activities within the target market.

7.5.2 | The methodology shall specify whether a Stock-Based or Flow-Based approach shall be used, adhering to the guidance below, and provide justification for the selection.

7.5.3 | **Stock-Based Approach:** The Stock-Based approach assesses the cumulative diffusion of a technology, measure, or practice at a specific point in time (e.g., the end of the most recent calendar year). For activities under LUF/AFOLU/BCFW category such as Afforestation/Reforestation (A/R), methodologies shall define an appropriate assessment window for identifying the cumulative stock ($Psim$). This window shall account for the time required for the activity to become reliably detectable using the specified data sources (e.g., remote sensing imagery). If detectability requires a minimum age (e.g., 5 years), the methodology shall specify this requirement.

a. Target Market (P_{all}) under Stock-Based: Represents the total installed base or population providing the service. Examples include:

i. The total installed capacity (MW) of all power generation facilities in the AGA.

ii. The total number of households utilizing decentralized cooking solutions in the AGA.

b. Similar Activities (P_{sim}) under Stock-Based: Represents the cumulative installed base of the Similar Activity. Examples include:
   i. The total installed capacity (MW) of wind power generation.
   ii. The total number of households utilizing improved biomass cookstoves (meeting specific efficiency criteria).

7.5.4 | **Flow-Based Approach (Time-Bound):** The Flow-Based approach assesses the rate of adoption by examining market activity (sales, installations, capacity additions) over a recent, defined Reference Period.

a. Defining the Reference Period: The methodology shall clearly define the Reference Period. This period should typically be the most recent three (3) years for which data is available. A shorter period (e.g., 1 year) may be justified for highly dynamic markets, while a longer period (up to 5 years) may be justified for slow-moving infrastructure sectors, based on the typical investment cycle of the technology.

b. Target Market (P_{all}) under Flow-Based: Represents the total market activity during the Reference Period. Examples include:
   i. The total new power generation capacity (MW) added to the grid during the Reference Period.
   ii. The total sales volume of decentralized cooking devices during the Reference Period.

a. Similar Activities (P_{sim}) under Flow-Based: Represents the activity related to the Similar Activity during the Reference Period. Examples include:
   i. The total new wind capacity (MW) added during the Reference Period.
   ii. The total sales volume of improved biomass cookstoves during the Reference Period.

7.5.5 | **Guidance on Selecting the Approach:** Methodology developers shall select the approach most appropriate for the technology and market context, justifying the choice based on the following criteria:

a. The Stock-Based approach is generally preferred when:
   i. Infrastructure possesses long lifespans, durable goods are involved, or practices are characterized by a cumulative installed base that represents the most relevant measure of prevalence (e.g., large hydropower, industrial facilities, buildings, land management practices).
   ii. Markets exhibit stability, with relatively slow and consistent technology adoption rates and low rates of technology turnover.
   iii. Data availability favors the installed base, such as reliable statistics for total stock (e.g., national census data,

infrastructure registries), while recent sales data is fragmented.

b. The Flow-Based approach is generally preferred when:
   i. Markets are dynamic or rapidly evolving, undergoing rapid technological change, significant cost declines, or recent policy shifts that accelerate adoption (e.g., small-scale renewables, electric vehicles). The Flow-Based approach is superior in capturing recent shifts in adoption trends.
   ii. Products have Short Lifespans: The technology involves products with relatively short lifespans or high turnover rates.
   iii. Data availability favors recent sales or capacity additions, while data concerning the total installed stock is unreliable or difficult to obtain.

7.6 | Determining the Common Practice Threshold (F_{max})

7.6.1 | Methodology developers shall determine and specify the Common Practice Threshold (F_{max}) using the standardised quantitative framework below, based on the Technology Maturity Category (TMC), the Assessment Approach (Stock-Based or Flow-Based), and the Geographical Classification of the AGA.

Step 1: Determine the Technology Maturity Category (TMC)

7.6.2 | Methodology developers shall assess the market adoption status (maturity) of the proposed technology, measure, or practice within the AGA and classify it as TMC-1 (Innovator/Nascent), TMC-2 (Early Adopter), or TMC-3 (Early Majority (Take-off)). This classification shall consider not only the technical maturity of the technology globally but primarily the persistent structural, financial, or institutional barriers that impede its autonomous diffusion within the specific context of the AGA. This classification shall be supported by quantitative evidence utilizing data not older than three years at the time of the methodology development or revision, unless the conditions of Step 3 below apply.

a. **TMC-1 (Innovator/Nascent):** The technology is novel, high-cost, and has minimal market presence. Commercial viability is unproven or only demonstrated in pilot projects within the region.
b. **TMC-2 (Early Adopter):** The technology has demonstrated commercial viability but continues to faces significant adoption barriers (e.g., high upfront costs, lack of infrastructure). Adoption is primarily driven by early movers.
c. **TMC-3 (Early Majority - Take-off):** The technology is experiencing rapid growth, costs are declining significantly, and adoption barriers are diminishing. It is approaching the "take-off" point of the adoption S-curve.

Step 2: Determine the F_{max} Threshold

7.6.3 | Based on the determined TMC, the Assessment Approach, and the Geographical Classification (LDCs/SIDS or Other Countries), the methodology shall apply the corresponding F_{max} value from the standardised tables[1] below.

Table 3: F_{max} Thresholds for Stock-Based Approach

Technology Maturity Category (TMC)	F_{max} (Other countries)	F_{max} (LDCs and SIDS)
TMC-1 (Innovator/Nascent)	2.5%	5%
TMC-2 (Early Adopter)	10%	15%
TMC-3 (Early majority (Take- Off))	16%	25%

Table 4: F_{max} Thresholds for Flow-Based Approach

Technology Maturity Category (TMC)	F_{max} (Other countries)	F_{max} (LDCs and SIDS)
TMC-1 (Innovator/Nascent)	5%	10%
TMC-2 (Early Adopter)	15%	25%
TMC-3 (Early majority (Take- Off))	25%	35%

7.6.4 | **Projects Targeting Low-Income Households/Communities:** If the methodology specifically targets technologies, measures, or practices primarily implemented by low-income households or communities (e.g., certain decentralized energy access or community resource technologies), the methodology shall apply the "Fmax (LDCs and SIDS)" thresholds, irrespective of the Host Country's official classification.

7.6.5 | This provision acknowledges that low-income populations globally often face systemic barriers to technology adoption (e.g., affordability constraints, limited access to capital) comparable to those prevalent in LDCs and SIDS. The methodology shall clearly define the criteria for identifying the target low-income population based on objective, verifiable indicators (e.g., national poverty lines, recognised poverty indices, or wealth quintiles).

7.6.6 | **Justification:** The methodology shall include a detailed justification for the selected TMC, supported by the quantitative evidence gathered in Step 1 above.

[1] Differentiated Thresholds for LDCs/SIDS: Higher thresholds are applied for activities located in Least Developed Countries (LDCs) and Small Island Developing States (SIDS). This differentiation acknowledges the inherently greater systemic barriers, higher investment risks, infrastructure constraints, and generally slower rates of autonomous technology diffusion observed in these contexts. A technology may achieve a higher penetration level in LDCs/SIDS while still requiring support to overcome these persistent barriers.

Step 3: Provisions for Data Unavailability

7.6.7 | The determination of the TMC requires robust, recent quantitative data (not older than three years). If robust, recent quantitative data for TMC determination is unavailable or demonstrably unreliable, the methodology proponent shall provide verifiable evidence of data collection efforts.

7.6.8 | If data insufficiency is confirmed, the methodology shall apply the conservative threshold (TMC -1). Note: The application of this threshold due to data unavailability does not constitute a TMC-1 classification for the purposes of the "Deemed Additionality" provision in Section 5.3.

7.6.9 | **Specific Considerations for LUF/AFOLU/BCFW:** In nature-based (LUF/AFOLU/BCFW) sectors, identifying the penetration of specific practices ($Psim$) can be challenging due to the reliance on remote sensing data or the lack of centralised registries. If the analysis required to determine $Psim$ with high certainty (e.g., detailed time-series remote sensing interpretation to confirm the prevalence of active interventions and differentiate them from autonomous processes) is demonstrably prohibitive in terms of cost/effort or yields unreliable results, the methodology developer or activity developer shall document these challenges. In such confirmed cases of data insufficiency or prohibitive complexity, the conservative threshold – confirmed at methodology level, shall apply.

7.6.10 | **Procedure for Data Unavailability:**

a. The methodology developer shall provide transparent and verifiable evidence demonstrating that comprehensive efforts were made to collect recent data (e.g., engagement with national statistics offices, industry associations, expert surveys) and clearly articulates why such data is unavailable or insufficient for a robust TMC classification.
b. This conservative default ensures that the lack of reliable data does not lead to an overly generous common practice threshold, thereby maintaining the integrity of additionality assessment and minimising subjective judgment.

ANNEX - SUPPLEMENTARY INFORMATION

Rationale and Justification

This section provides scientific evidence and rationale supporting the design of the Methodological Tool: Common Practice Analysis. It details how the tool's design enhances objectivity, reduces the decision-making burden, and ensures a credible additionality assessment.

1. Rationale for the Unified Market Penetration Approach

The tool utilises a single, unified Market Penetration Approach. This design choice significantly simplifies the methodology and reduces the decision-making burden compared to previous approaches that often involved complex analysis of "comparable activities."

Justification:

a. Enhanced Objectivity and Reduced Ambiguity: Previous approaches often required subjective interpretation to identify "comparable," "similar," and "different" activities. The unified approach shifts the focus to defining the "Target Market Size" and identifying "Similar Activities" using objective, standardized criteria (the Attribute Matrix). This reliance on quantifiable market data enhances objectivity.

b. Efficiency: A single, streamlined process reduces the complexity for methodology developers in setting up the analysis and for activity developers in executing it.

Distinction between Common Practice Analysis and Baseline Determination: The Common Practice Analysis focuses strictly on the prevalence of the proposed technology, measure, or practice itself. It assesses whether the specific actions and investments undertaken by the project are already widely adopted. This is distinct from the determination of the baseline scenario, which assesses the most likely outcome (e.g., carbon stock changes, emission levels) in the absence of the project.

For example, in Afforestation/Reforestation (A/R), if the project activity is defined as active human intervention (e.g., planting, assisted regeneration), the common practice analysis assesses the prevalence of such active interventions ($Psim$). Autonomous natural regeneration, while relevant to the baseline scenario (as it affects carbon stocks), is not considered a "Similar Activity" because it does not involve the same practice or investment.

2. Justification for the Quantitative F_{max} Framework (TMC Approach)

The tool introduces a quantitative framework for determining the Common Practice Threshold (F_{max}) based on Technology Maturity Categories (TMC). This replaces subjective or purely indicative values with a scientifically robust, formulaic approach.

Scientific Rationale: This framework is grounded in the established theory of Diffusion of Innovations, pioneered by Everett Rogers, and the observed S-curve pattern of technology adoption.

a. The Adoption S-Curve: Technology adoption progresses through distinct phases: Innovators, Early Adopters, Early Majority, Late Majority, and Laggards. Additionality is most credible during the early stages (Innovators and Early Adopters) before technology reaches the "take-off" point, where adoption becomes self-sustaining (Early Majority).
b. The TMC Framework: The TMC approach operationalizes this theory. The thresholds in the standardized tables are aligned with the typical market shares associated with these adoption phases. For example, the 16% threshold (Stock-Based, Other Countries) for TMC-3 is widely recognized in technology management literature as the critical inflection point or "chasm" between Early Adopters and the Early Majority.

Addressing Market Failures and Structural Barriers: While the Diffusion of Innovations (DOI) theory provides a standardised model for technology adoption, GS4GG recognizes that many mitigation activities occur in contexts characterized by significant market failures and structural barriers that impede autonomous diffusion. The Common Practice tool accounts for these realities through the following integrated mechanisms:

a. **TMC Classification Flexibility:** The determination of the TMC (Section 7.6, Step 1) explicitly requires the assessment of structural barriers. A technology may be technically mature but remain in TMC-1 or TMC-2 if systemic barriers prevent autonomous adoption in the AGA.
b. **Differentiated Thresholds:** The tool provides higher Fmax thresholds for LDCs/SIDS and extends these higher thresholds to projects targeting low-income communities regardless of location (Section 7.6, Step 2). This acknowledges that the "take-off" point occurs later when significant systemic barriers exist.
c. **Market Segmentation:** The tool permits the segmentation of the Applicable Geographical Area (Section 7.2) and the Target Market Size (Section 7.3) based on objective data. This ensures that high adoption rates among affluent or urban populations do not preclude projects targeting poorer or rural communities where the technology is not common practice.

The Fmax thresholds represent the critical inflection point ("take-off" point), not market saturation (>50%). Establishing thresholds at significantly higher levels would contradict the principles of additionality, as it would imply that carbon finance is required even when the technology is already the prevailing market choice.

3. Rationale for Stock-Based and Flow-Based Approaches

The tool requires methodology developers to explicitly select between a Stock-Based and a Flow-Based approach. This distinction is critical for accurately capturing the dynamics of different types of markets and technologies.

Justification:

a. Capturing Different Market Realities:
    i. Stock-Based Analysis (Cumulative Diffusion): Measures accumulated adoption over time. It is appropriate for mature or slow-moving markets with long-lived technologies.
    ii. Flow-Based Analysis (Rate of Adoption): Measures recent market activity. It is essential for dynamic markets where recent trends are the most relevant indicator of whether a technology requires additional incentives.
b. Leading vs. Lagging Indicators: The Stock-Based approach is a lagging indicator, reflecting historical adoption. The Flow-Based approach is a leading indicator, capturing the current momentum and trajectory of the adoption S-curve.
c. Addressing Market Momentum: Relying solely on a Stock-Based approach can misrepresent the status of rapidly emerging technologies. A technology might have a low cumulative installed base (low Stock) but dominate recent sales (high Flow), indicating it is rapidly becoming common practice.
d. Differentiated F_{max} Thresholds: The F_{max} thresholds are higher for the Flow-Based approach than for the Stock-Based approach across all TMCs. This is scientifically sound because a given level of penetration in recent sales (Flow) represents a stronger indicator of market acceptance and momentum than the same level of penetration in the accumulated installed base (Stock).

4. Rationale for Differentiated Thresholds (LDCs/SIDS)

The F_{max} framework incorporates higher thresholds for LDCs and SIDS across all TMC categories.

Justification:

a. Systemic Barriers: LDCs and SIDS often face inherently greater systemic barriers to technology adoption, including limited access to capital, higher investment risks, weaker infrastructure, and constraints in technical capacity.
b. Slower Diffusion Rates: Due to these barriers, the autonomous diffusion of new technologies typically occurs at a slower rate. A technology may achieve a higher penetration level in LDCs/SIDS compared to other countries while still genuinely requiring carbon revenue support to overcome these persistent barriers. The differentiated thresholds ensure that viable mitigation opportunities in these regions are not unfairly excluded.

5. Rationale for Time-Bound, Methodology-Level Analysis

The introduction of an optional, time-bound (3-year validity) common practice analysis conducted at the methodology level significantly increases efficiency and consistency.

Justification:

a. Efficiency and Reduced Burden: It eliminates the redundancy of requiring every activity participant to conduct the same analysis for the same technology and geographical area. This reduces transaction costs and streamlines activity development.
b. Consistency and Expertise: Centralizing the analysis ensures a consistent assessment approach across all activities applying the methodology and leverages the expertise of methodology developers to conduct comprehensive market assessments.
c. Scientific Soundness: The 3-year validity period ensures the analysis is based on recent data and remains relevant, balancing the pace of market evolution with the need for stability in the methodological framework.

6. Rationale for Standardized Definitions and Data Provisions

The tool provides clear, prescriptive guidance on defining key parameters and managing data uncertainties.

Justification:

a. Enhancing Reliability and Reproducibility: Standardization of definitions (AGA, Target Market Size) reduces subjective interpretation and ensures that different actors arrive at similar conclusions, enhancing the reliability and reproducibility of the analysis.
b. The Attribute Matrix: Replacing complex decision-making regarding "similarity" with a systematic Attribute Matrix ensures that the distinction is based on objective, verifiable technical characteristics. It explicitly excludes subjective factors like scale or cost, reducing ambiguity during validation.
c. Target Market Size Definition: Mandating that the Target Market Size be defined strictly on technical and regulatory boundaries—and excluding financial factors (which belong in barrier/investment analysis)—ensures the common practice analysis focuses strictly on the prevalence of the technology.
d. Data Unavailability Provision: When recent data for TMC classification is unavailable, the tool mandates the use of the most conservative (TMC-1) threshold. This ensures that data uncertainty does not lead to an overly generous F_{max}, maintaining the environmental integrity of the additionality assessment.

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