Approval of third party methodology

Methodology: Biofuel production and use for transport applications

ID: AMS-III.AK.

Organization: Clean Development Mechanism (CDM)

Version: 03.0

Date of approval: August 15, 2025

# Introduction

This document presents the proposal for the approval of the CDM small-scale methodology *AMS-III.AK: Biofuel production and use for transport applications* under the Proba Standard.

Proba’s methodology approval process ensures that all methodologies used for credit issuance meet high standards of environmental integrity, scientific robustness, and transparency. In accordance with *Proba’s Methodology Approval and Development Process* (Version 1.2), the evaluation of this methodology is based on the quality criteria outlined in Chapter 3 of that document.

**Although the CDM methodology AMS-III.AK is originally designed for biofuel production, Proba proposes to approve its application based specifically on fuel consumption, as the crediting logic within the methodology allows for this interpretation.** The goal of this document is to demonstrate how the methodology meets the Proba criteria and therefore being eligible for approval.

## Confirmation of permission to use

* The methodology is publicly available and published under the UNFCCC CDM.
* The CDM methodology AMS-III.AK is free to use with no license restrictions, satisfying Proba's 3.1 criterion regarding use permissions.

## Business and mitigation potential

* Fuel consumption reduction offers significant mitigation potential across transport and logistics. Emission factors of biofuels can result in a GHG reduction between 40-90%[[1]](#footnote-0).
* Proba expects multiple project developers to adopt this methodology due to:
  + Its compatibility with agricultural interventions and synergy with Proba’s insetting initiatives.

## Alignment with regulations and other frameworks

* AMS-III.AK is already approved under the CDM, a UNFCCC-governed mechanism.
* It aligns with the Core Carbon Principles from ICVCM, ISO14064-2 and 14067, and the ICROA criteria that Proba recognizes under its 3.3 criterion (this is further illustrated under the scientific foundation and key methodological components sections).

## Solid scientific foundation

* The methodology is based on established principles from life cycle assessment (LCA) and GHG accounting, quantifying emission reductions through fossil fuel displacement and applying a well-to-wheel system boundary that excludes biogenic CO₂ emissions (Section 5.3).
* It references key UNFCCC-approved tools—such as those for fossil fuel combustion, upstream leakage, transport emissions, and allocation of co-products—all grounded in IPCC (2006, 2019) guidelines and empirical research.
* The inclusion of default emission factors (e.g. Table 2) further supports conservative and scientifically credible quantification.

## Key methodological components

| **Methodology component** | **CDM AMS-III.AK** |
| --- | --- |
| Baseline Determination | Clear equations using fossil fuel displaced (Section 5.2) |
| Additionality | Covers both regulatory surplus and baseline blending levels (Section 2.2 & 5.2) |
| Evidence and Quantification | Field-level measurements, metered blending, and third-party invoices (Monitoring Tables) |
| Conservativeness | Use of minimum values and conservative emissions factors |
| GHG Calculation Formula | Fully defined with variables, units, and supporting tools (Section 5.2–5.3) |
| Permanence | Not applicable to combustion-based methodologies (no removals), aligns with insetting rules |
| Monitoring, Validation, Verifiability | All key data sources outlined with procedures and QA/QC expectations |

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## Easily understandable

### Clear structure and layout

The methodology is logically organized with distinct sections covering the full methodological workflow — from scope and baseline to monitoring and verification. A table of contents is included for easy navigation.

### Definitions and terminology

Section 4 provides a clear and comprehensive list of definitions for key terms such as biodiesel, biogenic, blended biofuel, and esterification, ensuring consistent interpretation.

### Clarity of methodological procedures

All methodological procedures, especially for baseline and project emissions, are presented in a stepwise format using labeled equations (e.g. Equation 1 for baseline emissions, Equation 10 for net emission reductions), with clearly defined variables and units.

### Monitoring guidance

Section 6 outlines detailed parameter tables including data units, sources, frequency, and QA/QC procedures. This allows developers and verifiers to confidently apply and audit the methodology.

### Accessibility of language

The language is generally straightforward and avoids unnecessary technical jargon.

## Development process

AMS‑III.AK was developed through the UNFCCC’s formal CDM methodology process, which includes expert drafting, public consultation, and approval by the CDM Executive Board. This aligns with Proba’s expectations for transparency, external review, and stakeholder input.

More information on the CDM methodology process is available at:  
 [**https://cdm.unfccc.int/methodologies**](https://cdm.unfccc.int/methodologies)

## Review and update mechanisms

AMS‑III.AK is subject to periodic review and versioning by the CDM Executive Board. Updates are made through a transparent process based on new scientific input, regulatory changes, and stakeholder feedback.

The full methodology archive and revision history can be accessed at:  
 [**https://cdm.unfccc.int/methodologies**](https://cdm.unfccc.int/methodologies)

Versioning and revision history are embedded in the methodology (Page 17).

## Risks and uncertainties

* Risks (e.g. double-counting, regulatory changes, supply chain shifts) are mitigated through contractual clauses and measurement safeguards.
* Leakage is explicitly addressed with formulas and upstream emissions tracking.
* The methodology provides both qualitative and quantitative uncertainty assessment options, in line with Proba’s expectations.

## Justification for use case

While the methodology is titled around “biofuel production,” the emission reduction logic explicitly allows baseline calculation based on actual fuel consumption:

* Section 5.2 outlines that the baseline emissions (BEy) are determined by the quantity of biofuel consumed (CBF) and the fossil fuel it displaces (EFCO₂,FF,y), making it consumption-driven.
* Section 5.5 confirms that emission reductions (ERy) = Baseline Emissions − (Project Emissions + Leakage).
* This consumption approach is aligned with the intended usage of the methodology in Proba certified GHG projects.

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# Conclusion & Approval Request

The Proba Technical Committee proposes that CDM Methodology **AMS-III.AK** will be approved for use under the Proba Standard **with application based solely on verified fuel consumption** (rather than biofuel production). This aligns with Proba’s mission of enabling scalable, verifiable, and standardized emission reductions, especially in agricultural insetting projects.

### Approved by Proba Management Board on 15-8-2025

1. https://co2emissiefactoren.nl/factoren/2024/9/brandstoffen-voertuigen/ [↑](#footnote-ref-0)