



AFRICAN CARBON STANDARD

APPROVED METHODOLOGY

CC-M001-O

Organic Waste Landfill Diversion Projects

Composting, co-composting, anaerobic digestion and controlled biological treatment of organic waste that would otherwise decay anaerobically.

Version 1.0 (June 2026)

Draft for Consultation

Applicable to African Projects

Document Control

Field	Detail
Methodology reference	CC-M001-O
Title	Organic Waste Landfill Diversion Projects
Standard	African Carbon Standard — Credible Carbon
Version	1.0
Status	Draft for Consultation
Scope of application	African projects diverting biodegradable organic waste from landfill, wastewater treatment or uncontrolled anaerobic decay
Sectoral scope	Waste handling and disposal; biological treatment of solid and liquid organic waste
Guiding principle	AMPED — Additional, Measured, Permanent, Excellent Data

Table of Contents

Document Control	2
Table of Contents	2
1. Introduction and Scope	3
2. Applicability Conditions	3
3. Physical Location and Project Boundary	3
4. Baseline Scenario	4
5. Additionality	4
6. Emission Reduction Quantification	5
7. Leakage and Conservativeness	5
8. Poverty Impact and Sustainable Development	6
9. Source Data / Model Accepted	6
10. Monitoring and Verification	6
11. Minimum PIN Checklist	7
12. Data and Evidence Hierarchy	7
13. Community Engagement and Stakeholder Consultation	7
14. Verification Requirements	8

1. Introduction and Scope

This methodology provides a guiding framework for projects seeking to register under the Credible Carbon standard. It applies to projects quantifying avoided methane emissions from organic waste diverted from landfill, wastewater treatment or uncontrolled anaerobic decay. It covers controlled aerobic composting, co-composting, anaerobic digestion and biogas recovery where the organic material is actually processed and records are available for audit.

Eligible organic waste streams include food waste, garden and green waste, agricultural residues, paper towel where composted, animal mortalities where legally accepted, fats, oils and grease, grease-trap waste and other biodegradable material accepted by the project facility.

The methodology is intended to support, not remove, Credible Carbon's insistence that all projects be **AMPED — Additional, Measured, Permanent and supported by Excellent Data**. The emphasis on excellent data to support project claims remains a hallmark of all Credible Carbon projects and supersedes narrow compliance with methodologies.

2. Applicability Conditions

A project is eligible under this methodology where all of the following conditions are satisfied.

Condition	Requirement
Waste type	The material must be biodegradable organic waste capable of producing methane under anaerobic disposal conditions.
Baseline route	The material would otherwise have been landfilled, sent to wastewater treatment, or subject to unmanaged anaerobic decay.
Controlled treatment	The project must process waste through composting, aerobic digestion or another controlled biological treatment, or through anaerobic digestion for biogas used as an energy feedstock.
Legal compliance	The facility must hold the municipal, environmental, waste-handling or operating approvals required by its jurisdiction.
Auditable data	Tonnages must be measured via scales or weighbridges, or conservatively converted from volume using documented density assumptions, or from price-per-volume or mass receipts.

3. Physical Location and Project Boundary

The boundary includes waste collection routes controlled by the project, receipt and weighing points, composting pads, windrows, digesters, leachate or liquid-waste handling areas, loaders, shredders, screens, vehicles and on-site electricity consumption. The PIN must provide GPS coordinates, site address, layout or aerial image, and the operational period claimed.

The boundary excludes downstream use of finished compost, digestate or soil amendments unless the project specifically claims an additional quantified benefit for those products. Transport used for material collection or distribution to downstream parties must be deducted from estimates of greenhouse gas savings.

4. Baseline Scenario

- A baseline year must be stipulated, noting that the baseline may not exceed three years prior to the date of project registration. A project may have a lifespan of a maximum of 21 years from its baseline year.
- For most organic solid waste projects, the default baseline is landfill disposal and anaerobic methane generation. For liquid organic waste such as grease-trap waste, the baseline may be wastewater treatment where landfill disposal is not lawful or plausible. The baseline may also account for greenhouse gas savings from displaced inorganic compost.
- The baseline must be appraised and adjusted at least every three years via the PIN submission prior to verification.

Waste stream	Default baseline	Evidence required
Food and garden waste	Landfill disposal.	Management practices of landfills that would have received the waste. Evidence that the material was not destined for other landfill-diverting activities.
Paper towel and compostable paper	Landfill disposal where not separately recycled.	Management practices of landfills that would have received the waste. Evidence that the material was not destined for other landfill-diverting activities.
Fats, oils and grease / grease-trap waste	Wastewater treatment or regulated disposal route.	Collection records, tanker records, wastewater baseline justification.
Animal mortalities or agricultural residues	Landfill, burial, rendering, unmanaged decay, or incineration without greenhouse gas capture.	Legal disposal context and source records. Description of default handling of the material and associated GHG emissions.

5. Additionality

The project must show that the organic waste diversion is not a regulatory requirement in the applicable jurisdiction. The case for regulatory surplus can be supported by one or more of the other proofs listed below.

Additionality test	Specific evidence for organic waste projects
Regulatory surplus	Regulatory surplus is the central proof of additionality under the Credible Carbon Standard. The project must show that activity is not required by law or bylaw in the project jurisdiction. Projects may apply an E+ principle, where

Additionality test	Specific evidence for organic waste projects
	laws or bylaws have been specifically introduced to reduce greenhouse gas emissions subsequent to the project country signing the Paris Accord. Similarly, the requirement for regulatory surplus should not eliminate projects that support the application of the laws or are listed in the country's Nationally Determined Contribution.
Financial barrier	The requirement of regulatory surplus may be supported by evidence of financial barriers to commencing or sustaining the project activity.
Common practice	The requirement of regulatory surplus may be supported by evidence that most comparable organic waste in the area is still landfilled or treated through conventional disposal rather than composted or digested. Common practice refers to practices adopted by more than 50% of a particular industry or sector.

6. Emission Reduction Quantification

$$\text{Net emission reductions: } ER = BE - PE - LE$$

BE is the methane that would have been generated under the baseline disposal route. PE includes operational fuel, electricity and biological process emissions from composting or digestion. LE is included only where material emissions are not already captured under PE.

Component	Organic waste calculation approach
Baseline emissions (BE)	Use a recognised landfill methane model or simplified accepted emission factor. Preferred: CDM Tool 04 / IPCC first-order decay parameters by waste type, climate zone and landfill type. For wastewater or liquid streams, use AMS-III.H or IPCC wastewater methods.
Project emissions (PE)	Include diesel/petrol for collection and loaders, electricity use, methane and nitrous oxide process emissions from composting or anaerobic digestion, and fugitive methane from biogas systems where applicable.
Leakage (LE)	Usually zero where project fuel and electricity are included as PE. Include any material off-site disposal, stockpiling, digestate mismanagement or landfill transfer created by the project.
Net credits (ER)	Only positive net ER values may be credited. Exclude uncertain or unavailable records.

7. Leakage and Conservativeness

Source	Treatment
Fuel used by collection vehicles and equipment	Include as project emissions using litres × recognised fuel factor.

Source	Treatment
Electricity or gas used by the facility	Include using kWh × grid emission factor.
Composting methane and nitrous oxide	Include using recognised defaults or measured data.
Rejected contamination sent to landfill	Deduct or exclude from eligible waste tonnage.
Finished compost storage	No leakage where stored aerobically and not sent to landfill; confirm in the PIN.

8. Poverty Impact and Sustainable Development

Organic waste projects must show a discernible poverty impact that includes but goes beyond the creation of work. Relevant evidence includes improved income security for employees or workers in the value chain, staff revenue sharing, and compost supplied to food gardens or small farmers. The PIN should quantify the beneficiaries and the value of payments or support provided.

9. Source Data / Model Accepted

Data accepted	Preferred evidence
Waste quantities by stream	Weighbridge records, platform/hanging scale records, numbered manifests, invoices, customer collection records.
Volume-to-mass conversions	Documented bin size, truck volume, density factor and conservative conversion source.
Facility operations	Windrow logs, turning records, temperature/moisture records where available, compost batch records, anaerobic-digestion gas meter records.
Fuel / electricity data	Fuel receipts, bank statements, loader hours with fuel intensity, electricity invoices or meters.
Emission savings and factors	CDM Tool 04 / AMS-III.F / AMS-III.H / IPCC FOD and wastewater parameters, or conservative emission factors approved by Credible Carbon.

10. Monitoring and Verification

Parameter	Frequency	Method
Mass of organic waste by type	Per load or transaction	Scale, weighbridge, manifest, invoice or conservative volume conversion.
Rejected / non-organic material	Per sorting event or monthly	Contamination records; non-organic material must be excluded from eligible tonnage.

Parameter	Frequency	Method
Fuel consumption	Per purchase or monthly	Receipts, logbooks, rental equipment hours.
Electricity consumption	Monthly	Utility invoice or meter reading.
Compost / AD process evidence	Monthly or batch-based	Photos, windrow logs, temperature logs, batch records, gas meter records.

11. Minimum PIN Checklist

- GPS location, site layout and processing technology described.
- Organic waste streams and baseline disposal routes justified.
- Tonnage records and measurement methods provided by waste stream.
- Fuel, electricity and process emissions included or conservatively justified.
- Estimates of gross and net greenhouse gas savings per year.
- Additionality statement considers current and future landfill-ban context.
- Poverty impact, ownership, stakeholder engagement and grievance evidence included.
- Calculation spreadsheet attached with BE, PE, LE and ER by year.
- Source of data for monitoring and verification identified.

12. Data and Evidence Hierarchy

Credible Carbon applies an evidence hierarchy when assessing whether project data is sufficiently robust for credit issuance. The verifier should use the best available evidence and apply conservative exclusions or discounts where data quality is weak.

Tier	Evidence type	Project-specific examples
1	Primary transaction and measurement records	Weighbridge tickets, scale records, numbered manifests, customer invoices, tanker records, batch logs.
2	Corroborating records	Bank statements, customer contracts, compost sales invoices, route sheets, photos, operating logs.
3	Documented estimates	Volume-to-mass conversions using documented bin sizes and conservative density values.
4	Operator declaration	Accepted only for minor gaps where total processed volumes are corroborated elsewhere.

13. Community Engagement and Stakeholder Consultation

The project must demonstrate that adequate stakeholder engagement has been conducted before third-party verification. The PIN should include a public notice or equivalent local communication, a

comment period or consultation opportunity, a record of material issues raised, and a functioning grievance channel.

- Identify directly affected stakeholders, including workers, customers, waste generators, land users, neighbours, community organisations or off-takers as relevant.
- Record the engagement method, date, participants, issues raised and project response.
- Keep evidence such as notices, attendance registers, photos, meeting notes, emails, messaging-app notices or letters of support.
- Explain how stakeholder feedback was addressed and how grievances can be submitted during the crediting period.

14. Verification Requirements

Third-party verification is required before credits are issued. The verifier must answer the Credible Carbon assessment questions and confirm that the project is real, operational, conservatively quantified, additional, monitored and poverty-positive.

Verification area	Minimum requirement
Site visit	Verifier observes the processing site, windrows/digester/receiving areas, equipment and record systems.
Tonnage review	Verifier tests waste records against primary manifests, invoices and scale records.
Calculation review	Verifier confirms landfill/wastewater baseline parameters, process emissions and project emissions.
Residue and contamination review	Verifier confirms ineligible or rejected material was excluded or deducted.
Poverty impact	Verifier reviews payroll, revenue-sharing, employment, compost-donation or community-benefit evidence.
Legal ownership of credits	Verifier must establish that the audited legal entity is the rightful owner of the credits and that no other party in the waste stream is claiming, or intends to claim, credits from the same organic waste.