

CDM-SSCWG45-A05

Draft Small-scale Methodology

AMS-III.T: Plant oil production and use for transport applications

Version 03.0

Sectoral scope(s): 07



DRAFT



United Nations
Framework Convention on
Climate Change

COVER NOTE

1. Procedural background

1. Following the approval of the methodological tool “Project emissions from cultivation of biomass” at the seventy-fifth meeting of the Executive Board (hereinafter referred to as the Board) of the clean development mechanism (CDM), the Small-Scale Working Group (SSC WG) requested a mandate from the Board to integrate this tool into SSC methodologies. Consequently, the Board mandated this task at its seventy-sixth meeting (EB 76, para 53).

2. Purpose

2. The draft revision:
 - (a) Introduces the methodological tool “Project emissions from cultivation of biomass”, taking advantage of its procedures and applicability criteria, and removing obsolete procedure;
 - (b) Introduces project and leakage emissions equations instead of cross-reference to another methodology;
 - (c) Removes restrictions for application in a PoA;
 - (d) Removes provisions for scrapping of equipment in a PoA.

3. Key issues and proposed solutions

3. None.

4. Impacts

- (a) Introduces the methodological tool “Project emissions from cultivation of biomass”, taking advantage of its procedures and applicability criteria, and removing obsolete procedure;
- (b) Streamlines biomass cultivation procedures;
- (c) Streamlines transport and energy consumption related project emissions procedures;
- (d) Improves the emission reduction calculations;
- (e) Removes restrictions for application in a PoA.

5. Subsequent work and timelines

4. None.

6. Recommendations to the Board

5. The SSC WG, at its 45th meeting, recommends the methodology for approval to the Board at a future meeting.

TABLE OF CONTENTS	Page
1. INTRODUCTION	5
2. SCOPE, APPLICABILITY, AND ENTRY INTO FORCE	5
2.1. Scope.....	5
2.2. Applicability.....	5
2.3. Entry into force.....	6
3. NORMATIVE REFERENCES	6
4. DEFINITIONS	7
5. BASELINE METHODOLOGY	7
5.1. Project boundary.....	7
5.2. Baseline emissions.....	7
5.3. Project Activity emissions	9
5.4. Leakage	11
5.5. Emission reduction.....	12
6. MONITORING METHODOLOGY	12
6.1. Data and parameters monitored	13
7. PROJECT ACTIVITY UNDER A PROGRAMME OF ACTIVITIES.....	17

1. Introduction

6. The following table describes the key elements of the methodology:

Table 1. Methodology key elements

Typical project(s)	Plant oil production that is used for transportation applications, where the plant oil is produced from pressed and filtered oilseeds from plants that are cultivated on dedicated plantations
Type of GHG emissions mitigation action	Fuel switch. Displacement of more-GHG-intensive petrodiesel for transport.

2. Scope, applicability, and entry into force

2.1. Scope

7. This methodology covers project activities involving the cultivation of oilseeds, the production of plant oil¹ and the use of plant oil for transportation applications. Plant oil in contrast to bio-diesel is not trans-esterified but only pressed and filtered from oilseeds.

2.2. Applicability

8. This methodology is only applicable to plant oil that:
- (a) Is used in blends of up to 10 per cent by volume of plant oil in unconverted vehicles;² or
 - (b) Is used as pure or in blends above 10 per cent by volume of plant oil.³
9. This methodology is applicable under the following conditions:
- (a) In the baseline situation the vehicles use diesel;
 - (b) Plant oil must comply with national quality regulations or in absence of the latter with the quality standards stipulated in Table 2;
 - (c) The retailers, final users and the producer of the plant oil or its blend are bound by a contract that states that the retailers and final consumers shall not claim emission reductions resulting from its consumption. The contract also enables the producer to monitor the consumption of plant oil or its blend. Only the producer of the plant oil can claim emission reductions under this methodology;

¹ Plant oil, or vegetable oil, is oil of plant origin composing of triglycerides. Although many different parts of the plants may yield oil, most often oil is extracted from the seeds or fruits of the plant. Examples of plant oil are sunflower oil, rapeseed oil and jatropha oil.

² The term 'vehicles' used throughout this document also includes other transportation applications such as domestic water borne transport. Domestic water borne transport as defined by IPCC 2006, vol.2, chapter 3 can be considered as eligible.

³ Conversion measures include adaptations of fuel supply, fuel injection and combustion.

- (d) Under this methodology only the CO₂ emissions from diesel displaced by plant oil is considered;⁴
- (e) In accordance with the approved “General guidance on leakage in biomass project activities” for small scale projects, the project participants should demonstrate that the area where the biomass is grown is not a forest (as per DNA forest definition) and has not been deforested, according to the forest definition by the national DNA, during the last 10 years prior to the implementation of the project activity. In the absence of forest definition from the DNA, definitions provided by relevant international organizations (e.g. FAO) shall be used. The plantations established on peatlands are not eligible under this methodology;
- (f) If the project activity utilizes oil seeds sourced from dedicated plantations, the applicability conditions prescribed in the methodological tool “Project emissions from cultivation of biomass” shall apply;
- (g) The export of the plant oil produced to Annex I countries is not allowed under this methodology.

Table 2. Proposed quality control parameters for plant oil

Properties	Unit	Proposed Limiting Value		Possible Testing Method
		Min.	Max.	
Acid Value	mg KOH/g	-	2.0	DIN EN ISO 660
Oxidation Stability (110°C)	h	5.0	-	ISO 6886
Ash Content	Mass-%	-	0.01	DIN EN ISO 6245
Contamination	mg/kg	-	25	DIN EN 12662
Phosphorus Content	mg/kg	-	15	ASTM D3231-99
Water Content	Mass-%	-	0.075	Pr EN ISO 12937
Kinematic Viscosity (40°C)	mm ² /s	-	Variable	DIN EN ISO 3104

10. Measures are limited to those that result in emission reductions of less than or equal to 60 kt CO₂ equivalent annually.

2.3. Entry into force

11. The date of entry into force is the date of the publication of the EB 81 meeting report.

3. Normative references

12. Project participants shall apply the “General guidelines for SSC CDM methodologies” and the “Guidelines on the demonstration of additionality of small-scale project activities” information on additionality (attachment A to Appendix B) provided at

⁴ Project participants are encouraged to submit procedures to calculate upstream emissions related to the production and use of fossil fuel in the baseline for consideration and approval by the CDM Executive Board.

<<http://cdm.unfccc.int/methodologies/SSCmethodologies/approved.html>> mutatis mutandis.

13. This methodology also refers to the latest approved versions of the following approved methodologies, guidelines⁵ and tools:
- (a) “General guidance on leakage in biomass project activities”;
 - (b) “AMS-III.F: Avoidance of methane emissions through composting”;
 - (c) “AMS-III.G: Landfill methane recovery”;
 - (d) “AMS-III.H: Methane recovery in wastewater treatment”;
 - (e) AMS-III.AK “Biodiesel production and use for transport applications”;
 - (f) “Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion”;
 - (g) “Project emissions from cultivation of biomass”;
 - (h) “Project and leakage emissions from transportation of freight”;
 - (i) “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”.

4. Definitions

14. The definitions contained in the Glossary of CDM terms shall apply.
15. Furthermore, the following definitions apply:

- (a) **Plant oil**, or **vegetable oil**, is oil of plant origin composing of triglycerides. Although many different parts of the plants may yield oil, most often oil is extracted from the seeds or fruits of the plant. Examples of plant oil are sunflower oil, rapeseed oil and jatropha oil.

5. Baseline methodology

5.1. Project boundary

16. The project boundary is the geographical area of the cultivation, production and processing of oil-seeds and the areas where plant oil is blended and sold to the final users. The vehicles of the final users where the plant oil or blend is consumed are also included in the project boundary.

5.2. Baseline emissions

17. Baseline emissions (**BE_y**) are calculated based on the amount of plant oil consumed by the project. For this purpose the amount of diesel fuel that would have been consumed in absence of using plant oil is calculated. Calculations are based on the relative net calorific values of the fuels used.

⁵ Please refer to: <<https://cdm.unfccc.int/Reference/index.html>>.

$$FC_{D,y} = \sum_{k=1..n} \frac{NCV_k}{NCV_D} \times \min(FC_{k,y}, FP_{k,y}) \quad FC_{D,y} = \sum_{k=1..n} \frac{NCV_k}{NCV_D} \times FC_{k,y} \quad \text{Equation (1)}$$

Where:

$FC_{D,y}$ = Diesel fuel which would have been consumed in the absence of the project activity in the year y (tonnes m^3)

NCV_k = Net calorific value of plant oil k (GJ/m 3)

NCV_D = Net calorific value of diesel (GJ/m 3)

$FC_{k,y}$ = Plant oil type k consumed in the year y (tonnes m^3)

K = Types of plant oil used (dependent on oil-seed source)

18. Under the condition of:

$$FC_{k,y} \leq FP_{k,y} \quad \text{Equation (2)}$$

Where:

$FP_{k,y}$ = Plant oil type k produced in the year y (tonnes m^3)

18. The net calorific values (in GJ/m 3) of diesel and of plant oil used are determined based on direct measurements of a representative sample.
19. Only plant oil which is consumed in non-annex 1 countries by captive fleets and which is sold to the end users at filling stations and recorded by calibrated metering systems is included. Captive fleets, retailers and final consumers are bound by a contract that allows the producer to monitor the consumption of plant oil and states that the captive fleet, the retailer or end user shall not claim emission reductions resulting from its consumption.
20. Total baseline emissions are determined as follows:

$$BE_y = FC_{D,y} \times NCV_D \times EF_{CO_2,D} \times f_{PD,y} \quad \text{Equation (3)}$$

Where:

BE_y = Baseline emissions in year y (t CO $_2$ e)

NCV_D = Net calorific value of diesel (GJ/tonnem 3)

$EF_{CO_2,D}$ = CO₂ emission factor diesel (t CO₂e/GJ)

$f_{PD,y}$ = 1.0 if pure petrodiesel is used for blending otherwise use the fraction of petrodiesel in the fuel used for blending⁶ (blending fraction based on volume basis)

5.3. Project Activity emissions

21. Project activity emissions (PE_y) are the emissions related to the cultivation of oil seeds and production of plant oil (“field-to-wheel” emissions). These emissions will be attributed to the plant oil produced, and not shared over the different co-products.⁷

22. The project emissions related to the cultivation of oil seeds are calculated using the latest version of the tool “Project emissions from cultivation of biomass”.

~~18. Project emissions from the cultivation of oil crops and production of oil seeds, shall be calculated in accordance with the “General guidance on leakage in biomass project activities” for small scale CDM project. Specific details are provided in this methodology for N₂O emissions resulting from fertilizer application and/or from nitrogen in crop residues (above ground and below ground).~~

23. In addition, to the emission sources included in paragraph 2244 the following sources shall be considered:

- (a) Emissions from energy use for processing (e.g. pressing and filtering) of plant oil;
- (b) Where applicable methane emissions due to stockpiling, land filling, waste water generated in the plant oil production facility.

24. For each oilseed/plant oil type k the project emissions shall be calculated separately.

$$PE_y = \sum_k PE_{PO,k,y} \times FP_{k,y} \quad \text{Equation (4)}$$

Where:

PE_y = Total project emissions from plant oil production (t CO₂e) in year y

$PE_{PO,k,y}$ = Project emissions from plant oil production of crop k (t CO₂e/tonne m³) plant oil k produced) in year y

$FP_{k,y}$ = Plant oil type k produced in the year y (tonne)

$$PE_{PO,k,y} = \frac{PE_{FA,k,y} + PE_{OFP,k,y} + PE_{CH4,k,y}}{H_{k,y} \times OY_{k,y}} \quad \text{Equation (5)}$$

⁶ It is expected that plant oil is blended with pure petrodiesel, however where the project proponent has no access to pure petrodiesel (e.g. due to local regulations requiring sale of blended petrodiesel in the region/country) blended fuel may be used.

⁷ Project proponents are encouraged to submit procedures to allocate emissions associated with the cultivation of oil seeds and production of plant oil among by-products for consideration and approval by the Board.

Where:

$PE_{FA,k,y}$ = Project emissions of N₂O in from cultivation of crop *k* in year *y* (t CO₂e)

$PE_{OFF,k,y}$ = Project emissions from energy use for oil-seed processing (e.g. pressing and filtering) of crop *k* in year *y* (t CO₂)

$PE_{CH4,k,y}$ = Project emissions of CH₄ from solid waste and/or waste water treatment associated with crop *k* in year *y* (t CO₂)

$H_{k,y}$ = Harvest of crop *k* in year *y* (tonne crop)

$OY_{k,y}$ = Oil yield of crop *k* in year *y* (tonne-m³ oil/t crop)

21. The project emissions of N₂O from oil crop cultivation ($PE_{FA,k,y}$) are determined as per the following options:

(a) Option 1: Use of default emission factor, where before the project activity the land is a degraded grassland or long-term cultivated land with low soil organic content

$$PE_{FA,k,y} = \sum_k A_{k,y} * EF_{k,y} \quad \text{Equation 6}$$

Where:

$A_{k,y}$ = Area in which oil seed type *k* is cultivated for use in the project plant in year *y* (ha)

$EF_{k,y}$ = Project emissions of N₂O from land management at the plantation where the oil seed type *k* is cultivated in year *y* (tCO₂e/ha)

Table 3 Default factors for the N₂O emissions (tCO₂e/ ha) associated with the cultivation of oil seeds⁸

Crop	Climate Zone	EF <i>k,y</i> (tCO ₂ e/ha)
Palm	Tropical Moist	0.53
Palm	Tropical Wet	0.53
Jatropha	Tropical Moist	0.60
Jatropha	Tropical Dry	0.9

Option 2: Calculation as per the equation below:

$$PE_{FA,k,y} = \left[(F_{ON,k,y} + F_{SN,k,y} + F_{CR,k,y}) \times EF_{N2O_direct} \right] \times \frac{44}{28} \times GWP_{N2O} \quad \text{Equation 7}$$

Where:

$F_{ON,k,y}$ = Amount of organic fertilizer nitrogen applied in crop *k* in year *y* (tonne N)

$F_{SN,k,y}$ = Amount of synthetic fertilizer nitrogen applied in crop *k* in year *y* (tonne N)

⁸ The default emission factor accounts for N₂O emissions from land management, however the project emissions from fossil fuel consumption for agriculture operations and upstream emissions related to the production of synthetic fertilizers used at plantation are neglected in this simplified SSC-CDM methodology.

- $FCR_{k,y}$ = Amount of N in residues of crop k in year y (tonne N). For N-fixing crops like soybean FCR shall be taken into account. For other types of crops FCR can be ignored. FCR shall be calculated in accordance with 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol 4, chapter 11
- $EF_{N_2O_direct}$ = N_2O emission factor for emissions from N inputs (tonne N_2O -N/tonne N input). A default value of 0.01 can be taken in accordance with 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Vol 4, Table 11.1 p.11
- $GWPN_2O$ = Global warming potential of N_2O (tCO₂e/tN₂O) (value of 310)

25. Project emissions cultivation of oil crop k ($PE_{FA,k,y}$) are calculated using the latest version of the tool “Project emissions from cultivation of biomass”.

26. Project emissions from energy use for processing (e.g. pressing and filtering) of plant oil ($PE_{OFF,k,y}$) are calculated using the “Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion” (if fossil fuels are used) and/or “Tool to calculate baseline, project and/or leakage emissions from electricity consumption” (if electricity is used).

22. determined as follows:

$$PE_{OFF,k,y} = EC_{OFF,k,y} \times EF_{CO_2,ELEC} + \sum_i (FC_{OFF,i,k,y} \times NCV_i \times EF_{CO_2,i}) \quad \text{Equation 8}$$

Where:

- $EC_{OFF,k,y}$ = Electricity consumption in processing (e.g. pressing and filtering) for crop k in year y (MWh)
- $EF_{CO_2,ELEC}$ = Emissions factor for grid electricity supplied to the project plant using the calculation methods of AMS I.D (tCO₂e/MWh)
- $FC_{OFF,i,k,y}$ = Consumption of fossil fuel i for filtering and pressing for crop k in year y (tonnes)
- NCV_i = Net calorific value of fossil fuel i (GJ/tonne)
- $EF_{CO_2,i}$ = Emissions factor of fossil fuel i (tCO₂/GJ fuel)

27. Project emission of CH₄ from solid waste disposal and/or waste water treatment ($PE_{CH_4,k,y}$) are calculated as per provisions in AMS-III.G (landfill); AMS-III.F (composting), and/or AMS-III.H (waste water treatment).

28. Project emissions from transportation of oil seeds to the oil production plant are estimated using the latest version of the tool “Project and leakage emissions from transportation of freight”. have to be accounted following the procedures in AMS-III.AK if the transportation distance is of more than 200 km, otherwise they can be neglected.

5.4. Leakage

29. Leakage emissions are calculated as follows:

$$30. \quad LE_y = -LE_{upstream,y} \quad \text{Equation (6)}$$

Where:

LE_y = Leakage in year y (t CO₂)

$LE_{upstream,y}$ = Negative leakage due to reducing indirect emissions associated with the production of petrodiesel (t CO₂)

24. Leakage emissions due to a shift of pre-project activities shall be accounted for as per the approved “General guidance on leakage in biomass project activities” for small-scale project activities.

31. The substitution of plant oil for petrodiesel reduces indirect (“upstream”) emissions associated with the production of petrodiesel ($LE_{upstream}$) and is treated as negative leakage⁹ and can be calculated as per the methodological tool “Upstream leakage emissions associated with fossil fuel use”.

5.5. Emission reduction

32. The emission reduction achieved by the project activity shall be calculated as the difference between the baseline emissions and the sum of the project emissions and leakage.

$$ER_y = BE_y - \text{MAX}(PE_y + LE_y, 0) \quad ER_y = BE_y - PE_y - LE_y \quad \text{Equation (7)}$$

Where:

ER_y = Emission reductions in the year y (t CO₂e)

BE_y = Baseline emissions in year y (t CO₂e)

PE_y = Project emissions from plant oil production (t CO₂e) in year y (t CO₂e)

LE_y = Leakage emissions in year y (t CO₂e)

33. The emissions from the production of plant oil are compared to the emissions from the production of the petrodiesel, which is avoided by displacing petrodiesel consumption with plant oil and is considered as negative leakage. The project emissions from the production of plant oil may be compensated by this negative leakage. However, project proponents shall not claim emission reductions from this comparison.

6. Monitoring methodology

34. The following parameters shall be monitored as per the Tables III.T.3 below. The applicable requirements specified in the “General guidelines to for SSC CDM methodologies” (e.g. calibration requirements, sampling requirements) are also an integral part of the monitoring guidelines specified below and therefore shall be referred by the project participants.

⁹ Emission reduction from reducing international bunker fuel consumption is not eligible under CDM as per EB 25 report, paragraph 58.

6.1. Data and parameters monitored

35. The following parameters shall be monitored and recorded during the crediting period:

Data / Parameter table 1.

Data / Parameter:	$H_{k,y}$
Data unit:	Tonnes
Description:	Harvest of crop k in year y
Measurement procedures (if any):	Measurements are undertaken using calibrated meters
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 2.

Data / Parameter:	$OY_{k,y}$
Data unit:	Tonnes-m ³ oil/ t crop
Description:	Oil yield of crop k in year y
Measurement procedures (if any):	Measured and calculated value. The plant oil extraction data shall be cross-checked with the amount of plant oil consumed by end-users
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 3

Data / Parameter:	$A_{k,y}$
Data unit:	Ha
Description:	Area in which oil seed type k is cultivated for use in the project plant in year y
Measurement procedures (if any):	Metered and calculated plantation area (e.g. using maps). Measurements results shall be consistent with yield of the plantation
Monitoring frequency:	Annually
QA/QC procedures:	-
Any comment:	-

Data / Parameter table 3.

Data / Parameter:	
Data unit:	%
Description:	Oil content of oil seeds
Measurement procedures (if any):	Laboratory analysis to be carried out. The value is to be established on representative samples
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 5.

Data / Parameter:	EF_{CO₂,ELEC}
Data unit:	tCO₂e/kWh
Description:	CO₂-emission factor for grid electricity supplied to the project plant in year <i>y</i>
Measurement procedures (if any):	Grid emission factor shall be determined as per AMS-I.D
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 6.

Data / Parameter:	EF_{CO₂,i}
Data unit:	tCO₂e/GJ
Description:	CO₂-emission factor of fossil fuel type <i>i</i>
Measurement procedures (if any):	As per the “Tool to calculate project or leakage CO₂-emissions from fossil fuel combustion”
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 7.

Data / Parameter:	EC_{OFP,k,y}
Data unit:	MWh
Description:	Quantity of electricity consumption in processing (e.g. pressing and filtering) for crop <i>k</i> in year <i>y</i>
Measurement procedures (if any):	As per the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”
Monitoring frequency:	As per the “Tool to calculate baseline, project and/or leakage emissions from electricity consumption”
Any comment:	

Data / Parameter table 8.

Data / Parameter:	NCV_i
Data unit:	GJ/mass or volume unit
Description:	Net calorific value of fossil fuel type <i>i</i>
Measurement procedures (if any):	As per the “Tool to calculate project or leakage CO₂-emissions from fossil fuel combustion”
Monitoring frequency:	Annually
Any comment:	

Data / Parameter table 4.

Data / Parameter:	FC_{OFP,i,k,y}
Data unit:	Mass or volume unit

Description:	Quantity of fossil fuel consumption / for filtering and pressing for crop k in year y
Measurement procedures (if any):	As per the "Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion"
Monitoring frequency:	As per the "Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion"
Any comment:	-

Data / Parameter table 10.

Data / Parameter:	$F_{ON,k,y}$; $F_{SN,k,y}$
Data unit:	Tonnes
Description:	Amount of organic fertilizer nitrogen applied in crop k in year y Amount of synthetic fertilizer nitrogen applied in crop k in year y
Measurement procedures (if any):	Measurements are undertaken using calibrated meters. Measurements results shall be cross-checked with records for purchased amount (e.g. invoices/receipts)
Monitoring frequency:	Continuously or in batches
Any comment:	-

Data / Parameter table 4.

Data / Parameter:	NCV_k
Data unit:	GJ/m ³
Description:	Net calorific value of plant oil k
Measurement procedures (if any):	Measured according to relevant national/international standards. Analysis has to be carried out by accredited laboratory
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 5.

Data / Parameter:	NCV_D
Data unit:	GJ/m ³
Description:	Net calorific value of petrodiesel
Measurement procedures (if any):	Measured according to relevant national/international standards. Analysis has to be carried out by accredited laboratory
Monitoring frequency:	Annually
Any comment:	-

Data / Parameter table 6.

Data / Parameter:	$FP_{k,y}$
Data unit:	Tonnes/m ³
Description:	Plant oil type k produced in the year y

Measurement procedures (if any):	Measurement through direct weighting or volume and density
Monitoring frequency:	Continuously or in batches
Any comment:	-

Data / Parameter table 7.

Data / Parameter:	FC_{k,y}
Data unit:	Tonnes/m ³
Description:	Plant oil type <i>k</i> consumed in the year <i>y</i>
Measurement procedures (if any):	Measurements of the amount of plant oil sold to retailers and filled into vehicles of the final end users and captive fleets are undertaken using calibrated meters for volume and multiplied by the density which is determined through sampling. Measurements results shall be cross-checked with production and consumption data
Monitoring frequency:	Continuously or in batches
Any comment:	-

Data / Parameter table 15

Data Wenxin Li: Where is this parameter used? And the 2 parameters below?/ Parameter:	FB_{PO,y} DRAFT
Data unit:	Tonnes/m ³
Description:	Amount of plant oil bought in case the plant oil is sold and/or used as blend
Measurement procedures (if any):	Measurements of the amount of plant oil bought by the retailers and owners of captive fleets are undertaken using calibrated meters. Measurements results shall be cross-checked with sales records
Monitoring frequency:	Continuously or in batches
Any comment:	

Data / Parameter table 16.

Data / Parameter:	FB_{D,y}
Data unit:	Tonnes/m ³
Description:	Amount of diesel bought in the case the plant oil is sold and/or used as blend
Measurement procedures (if any):	Measurements of the amount of diesel bought by the retailers and owners of captive fleets are undertaken using calibrated meters. Measurements results shall be cross-checked with sales records
Monitoring frequency:	Continuously or in batches
Any comment:	-

Data / Parameter table 17

Data / Parameter:	FC_{PO,y}
Data unit:	Tonnes/m3
Description:	Amount of blended plant oil used
Source of data:	-
Measurement procedures (if any):	Measurements of the amount of blended plant oil sold final end users and captive fleets are undertaken using calibrated meters. Measurements results shall be cross checked with production and consumption data
Monitoring frequency:	Continuously or in batches
Any comment:	-

Data / Parameter table 8.

Data / Parameter:	f_{PD,y}
Data unit:	%
Description:	Fraction of petrodiesel in the fuel used for blending
Measurement procedures (if any):	Data from the supplier of the fuel used for blending
Monitoring frequency:	Continuously or in batches
Any comment:	-

~~27. The occurrence of shift of pre-project activities and the competing uses of biomass shall be monitored and verified.~~

36. The compliance of pure plant oil and plant oil blends with national regulations or in absence of latter compliance with the parameters identified in Table III.T.1 2 shall be ensured through monitoring.

~~29. All the parameters for determination of the methane project emissions are to be estimated as per paragraph 27 and the procedures of the relevant methodologies.~~

37. If paragraph 8(b) is applicable, the engine conversion of the vehicles shall be monitored and verified by sampling.

38. It shall be monitored and verified that no plant oil is exported to Annex I countries.

7. Project activity under a programme of activities

~~39. The methodology is applicable to a programme of activities, no additional leakage estimations are necessary other than that indicated under leakage section above.~~

~~32. As currently constructed this methodology does not apply to a programme of activities. In order for this methodology to be used under a programme of activities further analyses are required, for instance further analysis concerning issues related to the shift of the pre-project activities in the lands where the oil crops are grown and the competing use of biomass is required. Project proponents are encouraged to submit procedures to address these issues as revisions to make this methodology applicable to a programme of activities for approval by the Board.~~

- - - - -

Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	5 September 2014	<p>SSC WG 45, Annex 5</p> <p>To be considered by the Board at EB 81.</p> <p>This document was issued for call for public input from 16 to 31 May 2014.</p> <p>Revision to:</p> <ul style="list-style-type: none"> (a) Introduce the methodological tool “Project emissions from cultivation of biomass”, taking advantage of its procedures and applicability criteria, and removing obsolete procedure; (b) Streamline biomass cultivation procedures; (c) Streamline transport and energy consumption related project emissions procedures; (d) Improve the emission reduction calculations; (e) Remove restrictions for application in a PoA.
02.0	30 July 2010	<p>EB 55, Annex 33</p> <p>To include default factors for project emissions associated with the oil seed cultivation and procedures for accounting methane project emissions.</p>
01.0	30 November 2007	<p>EB 36, Annex 22</p> <p>Initial adoption.</p>

Decision Class: Regulatory

Document Type: Standard

Business Function: Methodology

Keywords: plant oil, simplified methodologies, transport, type (iii) projects