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# Bunge Palm Oil Traceability Protocol (v1.4)

## Introduction

The objective of this protocol is to assure the completeness, and quality of collected palm traceability data and calculated traceability KPIs which are used internally as key input for sustainability activities, and published on Bunge’s Palm Oil Dashboard. The execution of this protocol is defined in Bunge Palm Oil Traceability Procedure.

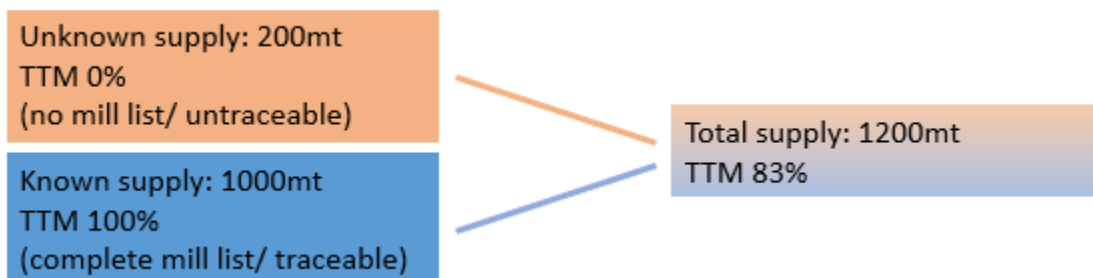
## Definitions

### Traceability to Mill

Volumes are traceable to mill (TTM) if they are supported by a list of mills and its respective % traceability to mill score. Mill lists can be shipment specific, or a mill list for the entire facility the volume was sourced from. As a minimum mill lists should contain mill names, parent company names and GPS coordinates. TTM scores are calculated using the formula:

$$\frac{\text{Volume of traceable palm oil}}{\text{Total vol. of palm oil (traceable and untraceable)}} \times 100 = \text{Percentage of traceable palm oil}$$

If a supplier sources from a combination of untraceable and traceable sources the traceability score is calculated as follows:



### Traceability to Plantation

Volumes are traceable to plantation (TTP), if either:

- i. The volume is supported by a percentage of traceability to plantation score, and a list of fresh fruit bunch (FFB) sources containing minimal information per FFB source type as shown in the table below.\*
- ii. The supplier shares a self-declared TTP score, and the supplier's TTP definition is aligned with minimum requirements for TTP as shown in the table below.
- iii. It is a RSPO SG volume with complete supporting documents.
- iv. The volume is supplied by a direct mill in Peninsular Malaysia with concession maps provided by the mill and/or an external source.

\* In addition, all new estate suppliers are required to provide shapefiles of concessions, and sub district information for smallholders is requested.

Minimum requirements for Traceability to Plantation (TTP)\*

	<b>Estate known planted area with &gt;50 ha</b>	<b>Dealer Intermediate supplier and unknown planted area</b>	<b>Smallholder known planted area with &lt;50 ha</b>
<b>Parent company name</b>	x		
<b>Name</b>	x	x	
<b>GPS coordinates</b>	x or concession maps		
<b>% FFB volumes supplied into the mill</b>	x	x	x
<b>Number of smallholders</b>			x

TTP scores are calculated using the formula:

$$\frac{\text{Volume of traceable palm oil}}{\text{Total vol. of palm oil (traceable and untraceable)}} \times 100 = \text{Percentage of traceable palm oil}$$

Total vol. of palm oil (traceable and untraceable)

# of supplying mills direct and indirect sourcing mills

Direct mills are all mills from which we source directly. Indirect sourcing mills are mills that we source from via our trading partners. Total of supplying mills is the number of mills we sourced from. KPI is calculated by

counting total number of mills we directly source from, total number of mills we indirectly source from, total number of all supplying mills.

#### % from sources with NDPE commitment

All volumes from sources with an equal or stronger NDPE commitment than the set minimum requirements are considered under this KPI. The NDPE commitment status of suppliers is verified independently. KPI is calculated using the formula: % volume under NDPE commitment / total volume received.

#### % certified volumes sourced

All certified volumes either certified as RSPO (MB/SG/IP) or ISCC are considered under this KPI. The % certified volumes sourced is calculated using the formula: certified volume received/ total volume received.

#### % volume actively monitored

Areas that we monitor by using remote sensing are considered being actively monitored. KPI calculated using the formula: volume coming from monitored areas / total volume.

### Data Accuracy and Completeness

Traceability is a minimum requirement for supplier qualification and traceability data requirements are explained during supplier onboarding.

To ensure accuracy and completeness of data we encourage our tier 1 suppliers to independently verify their traceability data. It is Bunge's strategy to work with suppliers that have similar protocols in place, and are third-party verified or working with an implementation partner supporting their traceability work.

#### Quality Control of Received Traceability Data

Submitted traceability data is checked on completeness and accuracy. In case of incomplete information, or conflicting data (with regards to prior collected or publicly available data) data is clarified with the supplier.

Quarterly data and summary reports are reviewed to ensure they conform to the requirements of this document before it gets published.

## Records

Collected purchasing data and traceability data is archived. The data is kept for minimum 3 years (digital copy).

## Third-Party Verification

Traceability as well as other KPIs listed in this document are subject to an annual third-party verification assessment by a third-party verification body that meets the below requirements:

- i. The third-party is recognized by a national public authority or an accreditation body which is a member of the International Accreditation Forum (IAF)
- ii. The third-party conducts verifications in conformity with ISO 19011 standard
- iii. The workflow of the certification process complies ISO/CE 17065:2012
- iv. The third-party has experience with the RSPO certification scheme

## Verification Assessment

For the verification assessment a sample methodology can be applied. The most suitable methodology can be selected by the auditee. However, this methodology should cover all key facilities over an audit cycle of 4 years and use a square root rationale for sample size selection. The methodology should be justified to and accepted by the selected verification body as being representative of the total number of facilities covered by the scope of the verification.

## Upstream Verification Assessment

The verification assessment may include upstream supply chain verification for suppliers that are not yet third-party verified or work with a third-party implementation partner that supports in implementing palm policies and commitments.

Upstream verification assessments are used to confirm complete data has been reported, and are considered in case:

- a.) The supplier fails to clarify data inconsistency during internal quality control or,
- b.) We notice that we routinely receive incomplete or inaccurate data type major inconsistency.

The upstream verification assessment includes only level of tier 1 suppliers. It is our direct suppliers' role to verify their tier 1 suppliers, and so forth.

#### Handling of Non-conformities

Any identified non-conformity, minor or major, is to be addressed with an adequate corrective action. This includes immediate action to correct the specific non-conformity, as well as developing and implementing timebound plans to avoid future similar non-conformities.

#### Issuance of Attestation

The verifier issues an attestation once verification is completed and all non-conformities have been closed. This serves as proof that the third-party verification assessment has been completed successfully. The attestation is valid for one year.

# Bunge Palm Oil Verified Deforestation Free Protocol (v1.2)

## Introduction

The objective of this protocol is to assure completeness and quality of the calculated 'Verified Deforestation Free' (VDF) KPI. This metric was first introduced in 2018 when sustainability data compilation took a big step forward with increased monitoring coverage and increased traceability to mill and plantation. It now serves as a key parameter for both Bunge and its customers to get immediate insights in the progression of both reduced supply chain risk and increased supply chain insights. The execution of this protocol is defined in Bunge Palm Oil Verified Deforestation Free Procedure.

## Definitions

### Verified Deforestation Free (VDF)

Volume is Verified Deforestation Free (VDF) if it comes from suppliers that are not linked to active deforestation for palm development. Supplier volume is estimated at mill level, based on traceability data (see Bunge's traceability protocol) and a batch level averages per mill.

VDF score is calculated using below formula<sup>1</sup>, where:  $n$  equals the total number of supplied traceable mills,  $i$  equals mill specific index,  $\hat{V}_i$  equals the estimated total mill specific volume,  $V_u$  equals the total volume untraceable to mill, and  $\hat{V}_i^{VDF}$  equals the estimated mill specific VDF volume.

$$VDF_{\%} = \frac{\sum_{i=1}^n \hat{V}_i^{VDF}}{(\sum_{i=1}^n \hat{V}_i) + (V_u)}$$

The formula shows that the mill specific VDF volume ( $\hat{V}_i^{VDF}$ ) is to be calculated separately from the total (mill) volume. The methodology behind  $\hat{V}_i^{VDF}$  is described in the next paragraph.

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<sup>1</sup> Example: estimated total VDF volume = 500 mT, estimated mill based volume = 800 mT, untraceable volume = 200 mT, then the total VDF score is 50%.

Minimum requirements for verified deforestation free

The VDF volume is determined at mill level, and involves checks to be completed. A mill volume is considered VDF if:

**1.** Mill is RSPO IP certified

**OR all of below conditions are met:**

- 1.** Concessions are mapped at mill or parent level
- 2.** Concessions are monitored by Bunge's deforestation monitoring system.
- 3.** Free from palm oil linked deforestation or less than 10 hectares (space of data inaccuracy).
- 4.** Are not linked to deforestation by Aidenvironment / Earthequalizer on parent level
- 5.** Are not suspended or blocked on Bunge's grievance list for deforestation.

If a mill does not comply with the above (e.g. a grievance is raised, or deforestation was detected), its volume will not fall under  $\hat{V}_i^{VDF}$ . If above checks succeeded, each VDF mill volume is split into 3 categories:

- a.** RSPO SG Certified PO -> 100% VDF
- b.** FFB supplies from mill owned plantations -> 100% VDF
- c.** FFB supplies from 3<sup>rd</sup> party supply -> 100% VDF if land use change within 50km radius of mill is below threshold, 0% otherwise.

## Data Accuracy and Completeness

The fundamentals of VDF are traceability, deforestation monitoring, and grievances. If volumes are untraceable, the total volume will be non-VDF (see formula;  $V_u$ ). If the mill is not monitored, the volume will be non-VDF ( $\hat{V}_i^{VDF} = 0$ ).

## Traceable to plantation

Traceability data is part of an annual independent audit, and the [protocol](#) can be found online.



## Deforestation alerts

Deforestation alerts are produced by a third party, Satelligence, with a science based accuracy of at least 98%. Alerts are received in raw format on bi-weekly basis.

## Grievances

The grievance procedure is described in a process flow and can be found [online](#). It contains clear actions taken from moment of grievance is raised to final grievance status.

## Third-Party Verification

KPIs listed in this document are subject to an annual third party verification assessment by a third-party verification body that meets the below requirements:

- I. The third-party is recognized by a national public authority or an accreditation
- II. body which is a member of the International Accreditation Forum (IAF)
- III. The third-party conducts verifications in conformity with ISO 19011 standard
- IV. The workflow of the certification process complies ISO/CE 17065:2012
- V. The third-party has experience with the RSPO certification scheme

## Verification Assessment

For the verification assessment, a sample methodology can be applied. The most suitable methodology can be selected by the auditee. The methodology should be justified to, and accepted by the selected verification body as being representative of the total number of mills covered by the scope of the verification.

## Handling of Non-conformities

Any identified non-conformity, minor or major, is to be addressed with an adequate corrective action. This includes immediate action to correct the specific non-conformity, as well as developing and implementing time bound plans to avoid future similar non-conformities.

## Issuance of Attestation

The verifier issues an attestation once verification is completed and all non-conformities have been closed. This serves as proof that the third-party verification assessment has been completed successfully. The attestation is valid for one year.