

Reporting Commodity Volumes

CDP Corporate Questionnaire



Version

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1.0	Released: June 2024	<ul style="list-style-type: none">• Publication of the Forests - Technical Note 'Reporting commodity volumes'
2.0	21 st May 2025	<ul style="list-style-type: none">• Minor corrections in sections "About this technical note" and "How should I convert commodity volumes into the metric ton?"• Updates to formatting in line with new branding
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About this technical note

CDP requests disclosers to report on their commodity volumes when disclosing on forests-related questions, in order to create more transparent, comprehensive and comparable disclosure data. This technical note provides an overview of this approach and guidance to convert commodity volumes into the unit of the metric ton.

1. Volume reporting

1.1. How does CDP refer to commodity volumes

CDP refers to **four** types of volumes throughout the disclosure:

- **Total commodity volume:** the total volume of a commodity produced and/or sourced (including used, purchased and consumed) by your organization regardless of whether this volume is included or excluded from your disclosure.
- **Disclosure volume:** the volume that your organization includes in its disclosure. Organizations are encouraged to report the "Total commodity volume" as their "Disclosure volume", however certain volumes may be excluded.
- **Produced volume:** the proportion of the "Disclosure volume" that is produced by your organization e.g., commodities grown, reared or harvested on land owned, managed or controlled.
- **Sourced volume:** the proportion of the "Disclosure volume" that is consumed, sourced, purchased and/or used by your organization for processing, trading or used as an input for manufacturing and/or packaging. This includes the commodity volume contained within manufactured goods sold by retailers in addition to the volume of soy embedded in animal products.

These four volumes are connected and should be viewed through a nested approach for each commodity (Figure 1):

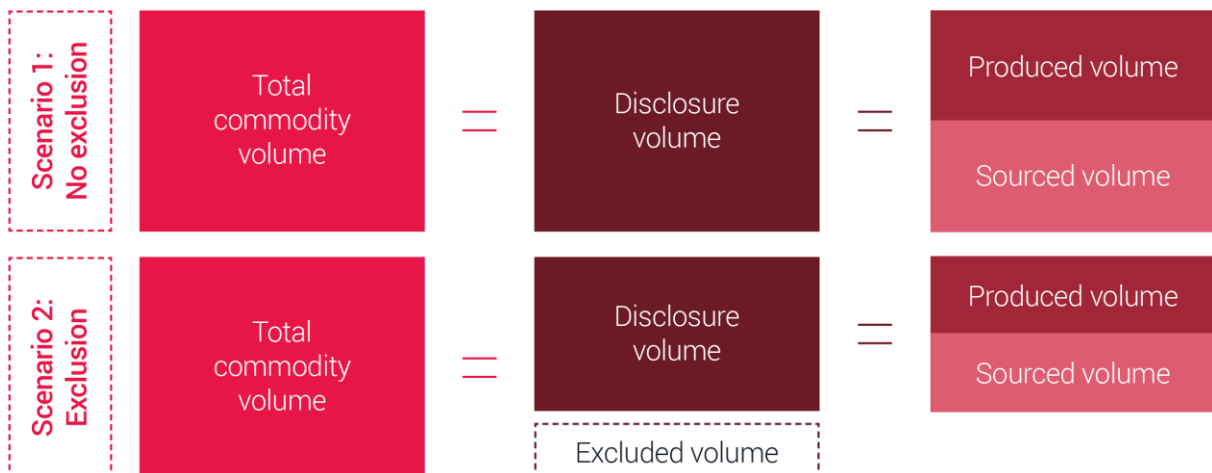


Figure 1: The four volumes referred to by CDP and how these are nested under two scenarios. Scenario 1 shows the breakdown of the volumes when there are no exclusions to the total commodity volume. Scenario 2 shows the breakdown of the volumes when there are exclusions to the total commodity volume.

- The overarching volume is the "Total commodity volume".
- For full and comprehensive disclosure, the "Disclosure volume" should equate to the same volume as the "Total commodity volume". However, certain volumes may be excluded. If this is the case, there will be differences in the "Total commodity volume" compared to the "Disclosure volume".
- The produced and/or sourced volumes, summed together, will always equate to the "Disclosure volume".
- Examples of how organizations may break down these four volumes are detailed in the appendix.

1.2. Where are the volumes referred to in the disclosure framework?

- The “Total commodity volume” is requested in question 1.22 of Module 1: Introduction.
- Details on the remaining three volumes (Disclosure volume, Produced volume, Sourced volume) are requested in question 8.2 of Module 8: Environmental performance – Forests.
- The three individual volumes reported in 8.2 will be referred to throughout questions in Module 8 with certain questions referencing different volume types as illustrated in Figure 1. An organization’s response to 8.2 will be used to contextualize the subsequent answers to those questions.

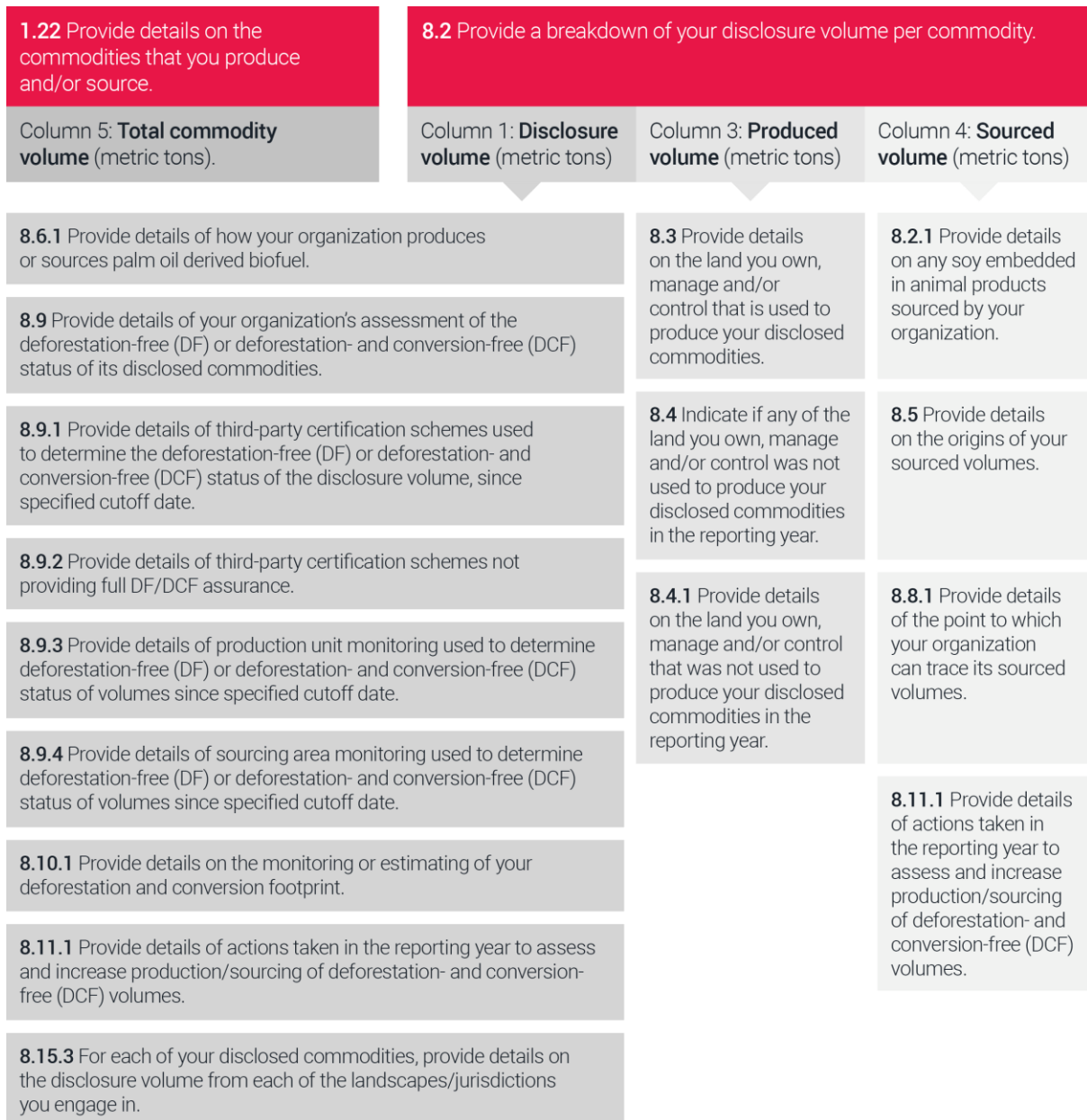


Figure 2: Breakdown of where each of the four volumes is referred to in the disclosure framework

1.3. What unit should the volumes be reported in?

Volumes should be reported in the **metric ton** (sometimes spelt 'tonne' in the UK), a unit of mass equal to 1,000 kilograms. This is distinct from non-metric units such as the:

- Short ton (US ton): 907kg
- Long ton (Imperial ton): 1,016kg

2. Converting between volumes

2.1. Why is it useful to convert units into the metric ton?

1) To create standardized and comparable data on commodity volumes:

- It helps create comparable data between organizations reporting on the same commodity.
- For organizations producing and/or sourcing more than one commodity, it shows the relative dependency on each commodity being produced and/or sourced.
- Other data platforms and not-for-profit initiatives are increasingly providing open data on deforestation including commodity volumes used/traded by organizations. Many of these volumes are reported in units of mass, specifically metric tons.

2) Several standards, frameworks and certification schemes request commodity volumes in the unit of the metric ton:

- The Taskforce on Nature-related Financial Disclosures (TNFD) lists 14 core global disclosure metrics relating to dependencies and impacts on nature, and nature-related risks and opportunities to the organization.
 - Core metric C3.1 refers to the "Quantity of high-risk natural commodities sourced from land/ocean/freshwater". This metric is to be reported in the unit tonnes.
- To set targets to manage nature-related impacts, the TNFD also recommends that corporates use methods from the Science Based Targets Network (SBTN). As part of 'Step 3: Land - Measure, Set and Disclose V1.0' SBTN require data on the:
 - Volumes of high-impact commodities to be reported in the unit of metric tons (or equivalent) for Target 1.
 - Volumes of agricultural commodities produced by production location to be reported in the unit of metric tons for Target 2.
 - Volumes of agricultural commodities purchased to be reported in the unit of metric tons for Target 2.
 - Volumes of high-impact commodities to be reported in the unit of metric tons for Target 3.
- As part of the Annual Communication of Progress (ACOP), the Roundtable on Sustainable Palm Oil (RSPO) members are required to detail the volumes of uncertified and certified palm oil sourced in tonnes (metric ton) annually.

2.2. How should I convert commodity volumes into the metric ton?

Commodities are often measured in different units and these in turn can be grouped by units of mass, volume and area (Table 1).

Table 1: Common unit types that each commodity is reported on.

Cattle products	Unit Type	Timber Products	Unit Type
Metric ton	Mass	Metric ton	Mass
Kilograms	Mass	Kilograms	Mass
Pounds	Mass	Pounds	Mass
Heads of Cattle	Other	Cubic meters	Volume
Cubic meters	Volume	Cubic feet	Volume
Liters	Volume	Square meters	Area
Square meters	Area	Square feet	Area
Square feet	Area		

Palm Oil	Unit Type	Soy	Unit Type
Metric ton	Mass	Metric ton	Mass
Kilograms	Mass	Kilograms	Mass
Pounds	Mass	Pounds	Mass
Cubic meters	Volume		
Liters	Volume		

Cocoa	Unit Type	Coffee	Unit Type
Metric ton	Mass	Metric ton	Mass
Pounds	Mass	Pounds	Mass

Rubber	Unit type
Metric ton	Mass
Pounds	Mass

To convert the commodity into the unit of “metric ton” a conversion factor (or coefficient) can be used. The choice and applicability of a conversion factor depends on a number of variables such as physical properties like the density. **As such the conversion factor will differ according to the context and situation and there is therefore no single or ideal conversion factor that covers all contexts and scenarios.**

2.3. Converting between units of mass

Commodities that are reported in units of mass such as Kilograms and Pounds can be converted to the metric ton using set conversion factors between units of mass:

Table 2: Conversion factors between units of mass

Unit	Conversion factor (1 metric ton)
Kilogram	0.001
Short ton	0.9071
Long ton	1.106
Pounds	0.00045

Example:

Organization A produces 15,000 kilograms of soy. To convert this into metric tons, they need to apply a conversion factor of 0.001. The calculation is therefore:

- $15,000\text{kg} \times 0.001 = 15$ Metric tons of soy

2.4. Converting between units of volume and units of mass

To convert commodities that are reported in units of volume (e.g., cubic meters, board feet, liters) to the metric ton, requires knowing the density of the commodity. Density is defined as the mass per unit of volume and is often expressed in units such as kilograms per cubic meter (kg/m^3). The density of the commodity depends on a number of factors and therefore contextual information is required to determine this. Once the density is known, the calculation to convert the unit of volume to a unit of mass is:

- $\text{Mass} = \text{Volume} \times \text{Density}$

Example:

Organization B produces 10 cubic meters of timber (m^3) from a specific tree species which has a density of 550 kilograms per cubic meter (kg/m^3). The calculation to convert these volumes into the metric ton is therefore:

- Volume = 10 m^3
- Density = $550 \text{ kg}/\text{m}^3$
- Calculation Step 1: Mass (Kilogram) = $10 \text{ m}^3 \times 550 \text{ kg}/\text{m}^3 = 5,500 \text{ kg}$
- Calculation Step 2: Mass (Metric ton) = $5,500\text{kg} \times 0.001^* = 5.5$ metric tons

Organization C sources 7,500 cubic meters (m^3) of palm oil. The organization has determined the oil to have a density of 910 kilograms per cubic meter (kg/m^3). The calculation to convert these volumes into the metric ton is therefore:

- Volume = $7,500 \text{ m}^3$
- Density = $910 \text{ kg}/\text{m}^3$

- Calculation Step 1: Mass (Kilogram) = $7500 \text{ m}^3 \times 910 \text{ kg/ m}^3 = 6,825,000 \text{ kg}$
- Calculation Step 2: Mass (Metric ton) = $6,825,000 \text{ kilograms} \times 0.001^* = 6,825 \text{ metric tons}$

*Conversion factor between kilograms and metric tons (see Table 2)

2.5. Converting between units of area and units of mass

Converting commodities that are reported in units of area (e.g., square feet or square meters) to the metric ton, requires additional information prior to conversion including knowing both the density and the thickness of the product. Once both the density and thickness are known, a two-step calculation is required:

- Calculate the volume: $\text{Volume} = \text{Area} \times \text{Thickness}$
- Calculate the mass: $\text{Mass} = \text{Volume} \times \text{Density}$

Example:

Organization D produces 20 square meters of timber products. They determine that the timber product has a thickness of 0.2 meters and a density of 350 kilograms per cubic meter (kg/m^3). The calculation to convert the 20 square meters of timber into metric tons is as follows:

- Area = 20 m^2
- Thickness = 0.2 m
- Density = 350 kg/m^3

- Calculation Step 1: $\text{Volume} = 20 \text{ m}^2 \times 0.2 \text{ m} = 4 \text{ m}^3$
- Calculation Step 2: $\text{Mass (Kilogram)} = 4 \text{ m}^3 \times 350 \text{ kg/m}^3 = 1400 \text{ kg}$
- Calculation Step 2: $\text{Mass (Metric ton)} = 1400 \text{ kg} \times 0.001^* = 1.4 \text{ metric tons}$

*Conversion factor between kilograms and metric tons (see Table 2)

Appendix: Examples on how to report on the four volume types

Reporting on these four volumes will depend on if the organization has produced and/or sourced the commodity, and if they are excluding volumes from their disclosure of forests related data. To illustrate the difference, refer to the three examples below:

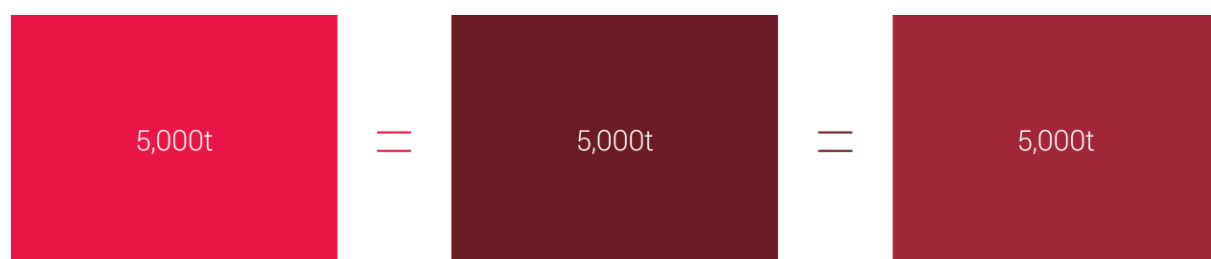
Example 1 - Organization X:

- Produce and source 30,000 metric tons (t) of soy. 30,000t is the “Total commodity volume”.
- 10,000 metric tons is excluded from the disclosure of forests related data due to e.g., these volumes relating to a merger in the reporting year.
- Therefore 20,000 metric tons of soy is included in the disclosure. This is Organization X’s “Disclosure volume” for soy.
- Since Organization X both produce and source soy, the “Disclosure volume” comprises both the “Produced volume” and the “Sourced volume”.
- 15,000 metric tons of soy is produced and disclosed on. This is the “Produced volume”.
- 5,000 metric tons of soy is sourced and disclosed on. This is the “Sourced volume”.
- Together the “Produced volume” and “Sourced volume” equate to the “Disclosure volume” (20,000t).



Example 2 - Organization Y:

- Source 5,000 metric tons of soy (“Total commodity volume”).
- No volumes are excluded from the disclosure of forests related data.
- As a result, the full 5,000 metric tons of soy is included in the disclosure (“Disclosure volume”).
- Since Organization Y only source soy, the “Disclosure volume” comprises only the “Sourced volume”. The “Sourced volume” thus equates to 5,000 metric tons (same as both the “Disclosure volume” and “Total commodity volume”).



Example 3 - Organization Z:

- Produce 20,000 metric tons of soy (“Total commodity volume”).
- 5,000 metric tons of soy is excluded from the disclosure of forests related data.
- Therefore 15,000 metric tons of soy is included in organization Z’s disclosure (“Disclosure volume”).
- Since Organization Z only produce this commodity, the “Disclosure volume” for the commodity of soy comprises only the “Produced volume”.
- The “Produced volume” thus equates to 15,000 metric tons (same as the “Disclosure volume”).

