

**Aligning efforts to report  
and act on land use change  
emissions and commodity-driven  
deforestation and conversion**

For many companies, the progress they can make on reducing land use change emissions is closely related to the actions they need to take to address deforestation and ecosystem conversion in their supply chains.

To support companies in accounting and measuring progress towards their Deforestation- and Conversion-Free (DCF) goals and Land Use Change (LUC) emission reduction targets, the Accountability Framework Initiative (AFi), the Greenhouse Gas Protocol (GHGP) and the Science Based Targets Initiative (SBTi) have developed some initial guidance. However, there are still operational gaps in terms of aligning efforts to act, account and report simultaneously on meeting forest, natural ecosystem and climate goals. Building on the existing guidance, Proforest has started analysing and testing approaches to enable practical alignment. This briefing features emerging insights and recommendations to ensure companies develop coherent strategies that deliver both climate outcomes and DCF supply chains.

## Key take aways

To ensure companies can effectively deliver on both DCF commitments and Scope 3 LUC emission targets, they need to work towards aligned strategies and implementation pathways within their supply chains:

- **Develop a coherent approach by ensuring consistent boundary alignment** between LUC accounting and DCF reporting across various supply chains. Where DCF risks and LUC emission factors are high, it may be useful for both DCF management and Scope 3 reporting to have more granular traceability.
- **Leverage traceability back to subnational jurisdiction or lower production area level** obtained through DCF tracing approaches to inform SBTi Forest Land and Agriculture (FLAG) targets and LUC accounting. With more granular emission data, it is possible to capture the emission reductions resulting from within supply chain interventions in emission factor calculations.
- **Use LUC emission accounting to identify priority areas and supply chains for implementing interventions**, and to develop interventions and investments at producer, landscape or jurisdictional level that are coherent across both DCF and SBTi FLAG strategies.



# The emerging frameworks for DCF and LUC emissions reporting

Companies are increasingly focused on tackling deforestation and reducing GHG emissions within their supply chains by setting commitments to (i) deliver DCF supply chains, and (ii) deliver on climate targets by reducing supply chain emissions, including those resulting from land use change. **While mitigation of deforestation and LUC emissions are closely connected, the alignment between the strategies, interventions, reporting and accounting of them is often not clear.**

Civil society organisations have been advocating for commitments on eliminating deforestation since the early 2000s, and companies started to adopt no-deforestation commitments in 2010. Now, companies that set emission reduction targets aligned with the SBTi are required to account for their Scope 3 LUC and other FLAG emissions. Furthermore, as part of their SBTi targets, they are required to commit to no deforestation across their primary deforestation-linked commodities, and it is recommended to include no conversion targets.

However, what this means in practice and how companies can leverage their policies and efforts for DCF to strengthen and accelerate their Scope 3 LUC emission reductions, and vice versa, requires further clarification and guidance.

There are three global reference points which guide how companies commit, set targets, and report:

- The [Accountability Framework Initiative](#) (AFi) provides [guidance](#) on defining and monitoring commitments towards DCF supply chains, suppliers, and landscapes. AFi requires companies to apply a cut-off date of 2020 or earlier, and a target date of 2025 at the latest.
- The [Greenhouse Gas Protocol](#) (GHGP) establishes comprehensive global standardised frameworks to measure and manage corporate GHG emissions. The [GHGP Land Sector and Removals Guidance](#) has been under development since 2020 and is set to be launched in 2023.
- The [Science Based Target initiative](#) (SBTi) [FLAG guidance](#) lays out a method for corporates to set GHG emission targets specific to land-intensive businesses. SBTi provides a reporting platform for DCF and GHG emissions and refers to the GHGP for accounting guidance. Under SBTi, companies are required to set commitments to deforestation-free aligned with AFi.

At a process level these frameworks are similar as they guide companies in:

- setting goals and targets to eliminate land use change associated with their operations and supply chains;
- measuring and accounting for that land use change at multiple scales;
- and disclosing performance and progress<sup>1</sup>.

Importantly, they also support companies in making decisions related to interventions that will address LUC emissions and DCF.

**Despite emerging alignment and formal cross-reference, there remains a significant gap between the two fields and how they relate to corporate land use strategies and approaches for taking action and reporting. There is an urgent need to bridge this gap and develop practical pathways to address forest, ecosystem, and climate goals together.**

<sup>1</sup> See AFi, GHGP, SBTi, [Deforestation- and conversion-free supply chains and land use change emissions: A guide to aligning corporate targets, accounting, and disclosure](#), 2022, p. 7-8.

# Delivering DCF commodities and LUC emission reductions

## Context: separate data and disconnected approaches

For both DCF reporting and LUC emission accounting, how companies set targets, account for land use change, and report impacts will differ based on their location in the supply chain and the level of traceability of purchased or embedded products. Furthermore, separate data sets have led technical accounting and planning interventions for DCF and LUC emissions to evolve separately, resulting in disconnected approaches.

As part of their DCF commitments, companies have generally built up varying levels of supply chain visibility depending on the commodity and their suppliers as laid out in the [Proforest DCF methodology](#). Different pathways for DCF reporting can be used depending on the context, and reporting companies are expected to disclose for each relevant product or commodity the total percentage of sourced volume determined to be DCF, specifying the assessment method. This information is reported through public reporting frameworks such as the [CDP](#) and is also considered by the [Consumer Goods Forum Forest Positive Coalition](#).

For GHG emissions from the FLAG sector, the way in which LUC emissions are calculated also differs depending on the level of traceability. The GHG Protocol defines **direct LUC (dLUC)** calculations, based on primary LUC data within a land management unit (e.g. a farm) or harvested area (e.g. a production plot), and **statistical LUC (sLUC)** calculations, based on an estimate of LUC within a jurisdiction or sourcing area<sup>2</sup>.

In practice, companies have often relied on statistical averages and global datasets, such as the [World Food Life Cycle Assessment database](#) (WFLCA) to determine the emission factors for the commodities in their GHG inventories. This database provides commodity-specific GHG emission factors by country, which help to identify priority countries to take climate mitigation action. **However, these GHG inventories using WFLCA at a national level may not capture the GHG emission reductions resulting from companies' LUC interventions interventions on the ground within their supply chains.**



<sup>2</sup> More information on sLUC can be found in this material by Quantis on the supply shed concept that could be applicable to the sLUC sourcing area approach.

## Working towards better alignment

To work towards a more integrated approach between DCF reporting and LUC emission accounting, the first step companies need to take is **traceability to an adequate scale of production**. This involves understanding and unpacking the different levels of traceability and scale relevant across both DCF reporting and LUC emission accounting.

Importantly, AFi guidance suggests companies use the most granular traceability data available to perform DCF assessments for identifying and addressing risks of deforestation, and to invest in more granular traceability depending on the risk. Similarly, SBTi FLAG asks companies to set GHG emissions targets using the most granular traceability data available to them. At the same time, there are limits in terms of the visibility that downstream companies can achieve within their supply chains, **requiring practical and balanced approaches to optimise the use of resources**.

This is where a lot of the efforts and work companies have developed as part of their DCF commitments and strategies can be leveraged in their climate accounting work. [Proforest's DCF methodology](#) begins with traceability to the granularity needed to confirm DCF - this may be at the scale of an individual plot, a supply shed or a jurisdiction. Information is then collected to confirm no conversion after an agreed cut-off date. In many cases, if planned to align with dLUC and sLUC approaches, this work can feed directly into emissions accounting. The different pathways in the DCF methodology each provide information and data to account for dLUC or sLUC emissions for SBTi FLAG.

### Traceability

#### Standard LUC approach

No extra traceability efforts are needed to confirm DCF status.

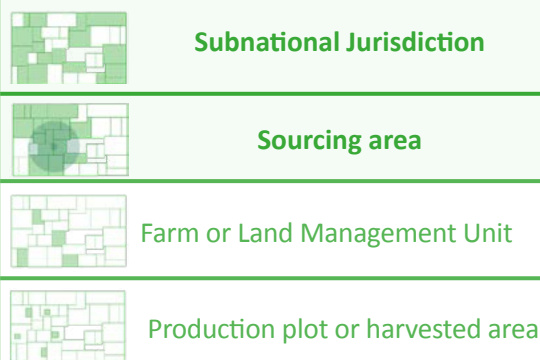


Country level

#### Approach based on DCF methodology

The first step in a DCF methodology is to trace back to the production area at a scale needed to confirm DCF status.

Level of traceability depending on DCF Pathway<sup>3</sup>



### Type of LUC emission factor

National average sLUC from database



\_\_kg CO2eq/kg commodity

Local LUC emission reduction interventions may not be accounted for.

Subnational sLUC



\_\_kg CO2eq/kg commodity

LUC emission reduction interventions can be accounted for towards reaching Science Based Targets, and the areas identified as non-DCF can be prioritized for interventions to further reduce LUC emissions.

dLUC



\_\_kg CO2eq/kg commodity

<sup>3</sup> As laid out in [Proforest's DCF methodology](#), the desired level of traceability will depend on the appropriate DCF pathway.

The two cases studies below illustrate how such traceability data can be used to improve the establishment of baselines and monitoring to capture reductions from interventions at supply chain level and at landscape level respectively, as opposed to global country level defaults. When such approaches cannot provide accurate data for LUC emission accounting, it is recommended to use global sLUC emission factors such as from existing databases.

### Case 1: Using traceability to first level aggregator

Company A purchases beef from suppliers that are able to trace raw material to the slaughterhouse in the producing country but not to the farm. The slaughterhouse's location is combined with information on purchase distance to determine a sourcing area. This area is then used in a geospatial LUC analysis to identify conversion to planted pastures after a specific cut-off date. Depending on the data sources available, this analysis can identify conversion from many native vegetation classes, crops, or pastures and vice-versa, providing information to estimate both DCF risk areas and sLUC emissions in the sourcing area.

### Case 2: Using supply chain mapping to subnational scale<sup>4</sup>

Company B purchases animal products with soy embedded in feed. Using information on raw material origin, the company identifies potential national and subnational origin of the soy using publicly available trade data, like [FAOSTAT](#) and [Trase](#). A LUC analysis is conducted using jurisdictional boundaries instead of the sourcing area. The results categorise jurisdictions by DCF risk and inform the sLUC emission accounting process. When supply chain mapping data is available at a more granular level (municipalities or districts), the DCF category of risk and sLUC emission accounting can also be defined at that level.

In addition to leveraging existing data, companies can and should go further in building consistency between their DCF approach and their methods to identify and report on LUC emissions by reviewing the boundaries of DCF risk assessments and LUC emission accounting. Ideally, these can be aligned over time within the various commodity supply chains and related GHG inventories. **Where boundaries are aligned, interventions and investments to tackle deforestation and conversion in supply chains could be accounted for in LUC emissions to meet SBTi targets.**

### Next steps

This briefing explored initial steps on how to develop an integrated approach for Scope 3 LUC emission targets and achieving DCF supply chains. While several technical issues on LUC emission calculation and reporting remain to be clarified, there is a clear need to **ensure that company efforts to achieve DCF and to manage LUC emissions are aligned and inform each other.** This will make it more efficient and effective to deliver on both, whereby interventions can be developed at the most relevant scale to address LUC emissions.

As further guidance will become available from both SBTi FLAG and GHGP in Q3 2023 and beyond, Proforest will continue to work with companies and partners to align strategies that deliver on DCF and LUC emissions, integrating responsible sourcing, landscapes, and collaboration.

<sup>4</sup> This method has been piloted to inform the GHGP for the land sector and removals guidance as part of the public consultation process. It is expected to have more details about this approach in this guidance.





## **proforest**

Proforest is a global organisation with a single mission: To ensure agricultural and forestry production that delivers positive outcomes for people, nature and climate. We have more than twenty years of practical experience in supporting companies, governments, communities and partners, to establish responsible production and sourcing practices in Asia, Africa, Latin America and the Caribbean, Europe and North America. We work within and beyond supply chains: with technical expertise in implementation of responsible sourcing and production, collaboration, landscape and multi-stakeholder initiatives, capacity building, tools and training.

[www.proforest.net](http://www.proforest.net)