



SBTi FLAG and draft GHG Protocol Land Sector and Removals guidance – implications for corporates

Briefing note– October 2022 (V2)

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1. Introduction

Two long-awaited publications came out within days of each other at the end of September. The first was the Science-Based Targets Initiative's (SBTi) guidance for Forestry, Land Use and Agriculture (FLAG). The second was the GHG Protocol draft Land Sector and Removals Guidance, which sets out the associated rules for GHG accounting.

The timing is no coincidence, the SBTi target setting guidance refers to the GHG Protocol for all matters of GHG accounting, and the development processes have been interlinked.

This document summarises the main points and implications for companies that may be required to, or interested in, setting science-based targets for the land sector.

2. What are FLAG emissions?

Forests, land-use and agriculture (FLAG) sources account for nearly a quarter of global annual greenhouse gas emissions. They also have a large potential to remove (sequester) carbon from the atmosphere – without this, the Paris Agreement goals are impossible. Typical corporate sources of FLAG emissions are emissions from livestock, field emissions from fertiliser use (N₂O), burning of agriculture waste, land use change and deforestation.

3. Who is the SBTi's FLAG target setting guidance relevant to?

The new guidance complements the Net Zero Corporate Standard launched by the SBTi in October 2021. Setting carbon reduction targets to the Net Zero Standard is voluntary, but has become the norm for companies serious about climate action and is increasingly expected of large companies by investors and customers.

The FLAG guidance is mandatory for companies with or about to set SBTi-validated targets in the following SBTi sectors: forest and paper, food production, food and beverage processing, food and staple retailing and tobacco.

It is also mandatory for other companies with FLAG emissions totalling 20% or more of their total scope 1, 2 and 3 emissions. This is likely to capture companies in packaging, hospitality, textiles, apparel, and other sectors – even where they are not directly involved in FLAG activities themselves.

Companies with FLAG emissions less than 20% are also encouraged to set a FLAG target. If they do not, FLAG related emissions must still be included in the (non-land) energy/industry target

boundary¹. This has the potential drawbacks that FLAG-related carbon removals cannot be included and more aggressive minimum reduction targets will apply (see Question 8 for more information).

4. When will companies with SBTs have to comply?

Its introduction is phased according to companies' current SBTi target status as follows:

- Companies that set their target pre-Jan 2020 must set a FLAG target by 31st December 2023.
- Companies that set their target post-Jan 2020 and pre-30th April 2023 must add a FLAG target by 31st Dec 2024.
- Companies setting their first SBTi validated target post April 30 2023 must set a FLAG target upon submission.

5. How do FLAG targets relate to the existing energy/industrial SBT framework?

A separate FLAG target is required in addition to the standard energy/industrial SBT target. The two run in parallel with separate GHG inventories, target requirements and reporting. Over or under achievement against one target has no impact on the achievement of the other.

It's worth noting that some FLAG emission sources that may already be present in an energy/industrial GHG inventory, such as enteric methane emissions from livestock or nitrous oxide from fertiliser application, will become part of the FLAG inventory. This is likely to make the energy/industrial target easier to meet (see question 9).

While nature-based carbon removal (sequestration) is integral to FLAG carbon accounting, the strict separation of EI and FLAG means that these removals can only count towards the achievement of the FLAG target (see question 10 for more on this).

The FLAG target boundary is up to the farm gate or up to the timber yard, i.e., other downstream emissions such as processing of FLAG commodities will fall into the standard energy/industrial GHG inventory and target setting. Emissions from bioenergy is covered under the existing SBTi criteria.

¹ The energy/industry target refers to the core SBT target setting framework for non-land emissions, which was originally launched in 2015 and updated in 2021 to create the SBTi's Net Zero Corporate Standard. The Net Zero Corporate Standard features near and long term targets, and a definition of Net Zero.

6. How do you calculate or measure a company's FLAG emissions?

This is where the GHG Protocol's Land Sector and Removals guidance comes in. The core GHG Protocol Corporate Standard does not cover all aspects of FLAG emissions and removals (sequestration). The new guidance aims to fill in the gaps. It's a complex area, the new GHG Protocol guidance is split into two documents, together totalling 400+ pages. Many further datasets are needed to actually complete the calculations.

In short, however, the approach centres on estimating or measuring the quantity of carbon stored in carbon 'pools' and the fluxes (movement) of carbon between them. Much of this is associated with the biogenic carbon cycle as summarise in the figure below:

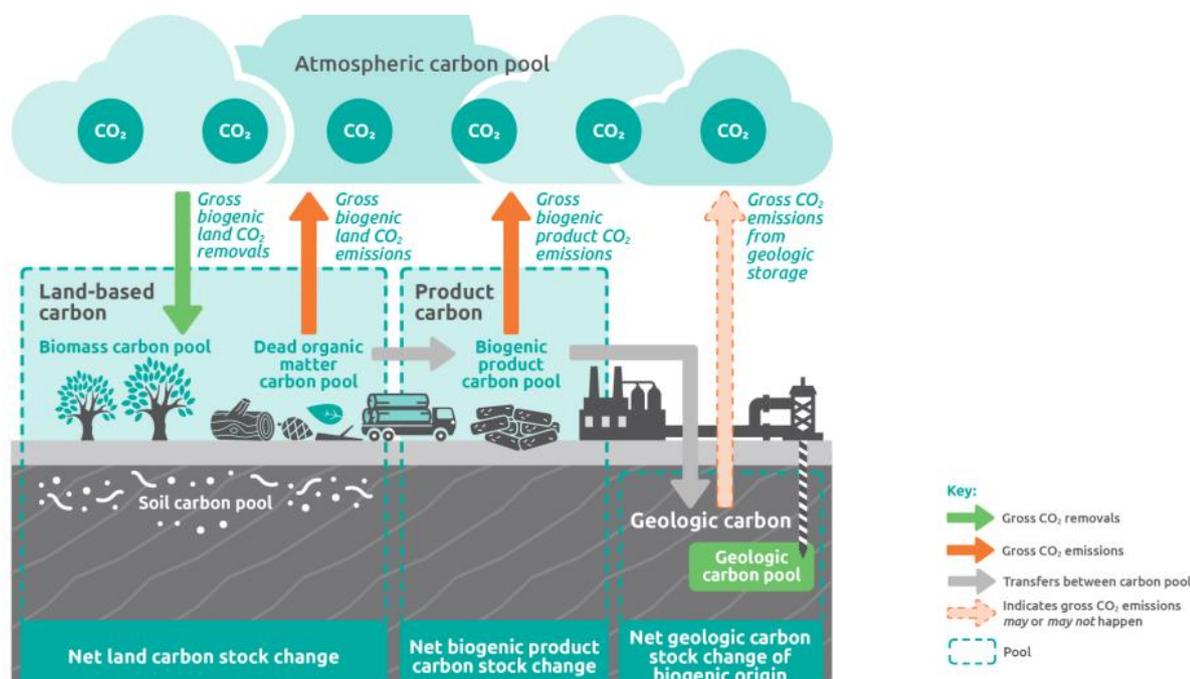


Figure 1: The Biogenic carbon cycle. Source: Chapter 4, Figure 4.4. GHG Protocol Land Sector and Removals Guidance, Draft for Pilot Testing and Review, September 2022

The task of actually calculating FLAG emissions can be performed as bespoke calculations and / or via various tools and resources. The World Resources Institute (WRI) published a list of 'Land Sector Calculation Resources' as part of the suite of draft guidance documents. There are 100+ entries but unfortunately no single tool or resource covers all areas. Undertaking the calculations looks to be the domain of specialists for some time to come – either in performing calculations themselves or in the use of proprietary software tools.

Data requirements are likely to include FLAG-associated material flows, categorisation of land areas by usage, land management information, livestock numbers and empirical measurements

for carbon removal calculations. Some of this may already be covered by the energy/industrial GHG inventory.

Although published as a draft, the GHG Protocol draft guidance contains only three consultation questions and thus it appears that the final version to be published in 2023 will be very similar to the draft.

7. How are carbon removals calculated?

Whereas it is acceptable for emissions to be calculated with rather coarse estimation methodologies, carbon removal calculations have to meet additional requirements. This makes sense, as it may be tempting to be more generous with assumptions for removals than for emissions, to make the journey to net zero easier. The additional requirements include ongoing storage monitoring, traceability, primary empirical data relating to the specific carbon pool, calculation of the statistical uncertainty and accounting of any reversals (i.e., carbon stock losses or loss of ability to monitor previously stored carbon).

Note that the GHG Protocol guidance covers all forms of carbon removal i.e., Technical Carbon Dioxide Removals (TCDR) as well as nature based.

8. Is there guidance on how to report land sector emissions and removals?

Yes, reporting formats have been published as part of the guidance. This comprises an .xls table for GHG inventory data and a Word reporting template, covering accompanying information such as context, scope, calculation methods, traceability systems and monitoring systems.

Reporting of removals is optional, but where included, must be reported separately alongside gross emissions figures and the resultant net emissions.

It is also mandatory to report on at least one of three 'Land Tracking' metrics. These are designed to provide information on the company's wider land and emissions impacts, beyond the immediate boundary of corporate emissions reporting. This is important because in some situations, actions to reduce a company's land sector or energy/industrial emissions can lead to increased land use change outside of a company's inventory boundary. For example, demand for biofuels leading to additional land clearing for food crops that have been displaced.

The three Land Tracking options are:

- Indirect land use change emissions (tCO₂e) i.e., emissions due to land conversion on lands outside of the value chain induced by the company's activities.
- Carbon opportunity costs (tCO₂e) – the amount of additional carbon that could be stored if the land in production were allowed to return to native vegetation.

- Land occupation (ha) – the amount of land occupied for a certain time to produce a product.

9. What are the FLAG target setting options?

The SBTi FLAG guidance is focused on near-term (i.e., 5-10 year) targets. The long-term target is 72% by 2050 against the base year. The FLAG guidance contains two target setting approaches:

- **FLAG Sector approach:** for companies with diversified emissions across FLAG emissions sources. It follows a percentage reduction against a baseline model, with the near-term absolute target set as -3.03%/year linear reduction as opposed to the -4.2%/year (and -90% for long term target) for energy/industrial targets. The lower ambition reflects the challenges in reducing N₂O and CH₄ emissions from agriculture.
- **FLAG commodity approach:** This is an alternative option for 9 agricultural commodities (beef, dairy, chicken, pork, corn, wheat, soy, palm oil, rice) where the emissions associated with any one commodity exceed 10% of total FLAG emissions. These targets also follow a percentage reduction from a baseline model, but expressed as emission intensity metric (tCO₂e/tonne of product). The target percentages depend on the region and commodity, but the global averages range from -2.4% a year for beef to -3.8%/yr for soy. Timber and wood fibre is the exception, where a SBTi commodity target tool **has** to be used, if emissions exceed 10% of the FLAG total (gross, excluding removals).

As both types are based on a ‘reduction against a baseline model’, it will be harder for those companies that have already acted to reduce emissions to achieve the targets than those that haven’t. The minimum target boundaries are the same as for energy/industrial targets – at least 95% for scopes 1 and 2, and at least 67% for scope 3.

Deforestation commitment

In addition to the targets above, companies are required to make a formal commitment to achieving zero deforestation in their value chain by their target date. This is a pre-requisite for FLAG target approval. Companies are also encouraged to align their deforestation targets with the Accountability Framework Initiative (AFI), with leaders expected to extend their commitments to cover the elimination of land conversion and peat burning.

10. Can credited GHG reductions or removals (‘offsets’) be used to meet SBTi FLAG reduction targets?

No, carbon offsets can only be used as part of ‘beyond value chain mitigation’ (which is voluntary but encouraged) and removal offsets for neutralising the final residual emissions following achievement of long-term targets to declare net zero. Offsets cannot count towards meeting the FLAG target itself.

Note however that producing removal credits from assets within the value chain (sometimes called ‘inset credits’) via good quality crediting mechanisms could be a good way to tick all the boxes for carbon removal accounting as mentioned in Question 7. Double counting must be avoided by accounting for the impact through the normal scopes 1, 2 and 3 GHG inventory method i.e., accounting for removals where they occur in the value chain, rather than via the sale / purchase of credits. Chapter 13 of the new GHG Protocol guidance covers this in detail.

11. Can renewable gas certificates be used to claim lower scope 1 emissions for gas use?

There was an expectation that the GHG Protocol Land Sector and Removals guidance would put to bed a long-running debate over whether it is acceptable to use renewable certificates to claim low/zero emissions for gas delivered by the natural gas grid, in a similar fashion to scope 2 market-based reporting for renewable electricity.

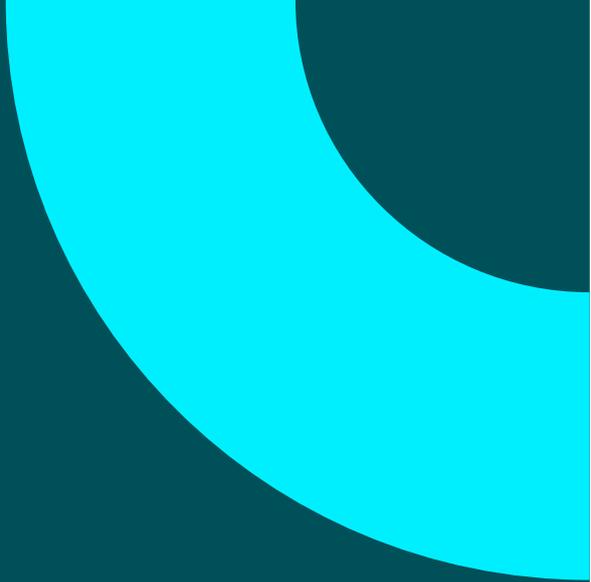
In the event, the guidance states that this approach is not acceptable, but it will be subject to a wider review of carbon accounting of market-based instruments due to start in 2023. A coherent and robust carbon accounting mechanism for pipelined gas is indeed sorely needed, as companies are already taking strategic decisions based on this contractual accounting approach being possible. Furthermore, alongside the small amounts of biomethane already fed into gas grids, there is the prospect of the different types of hydrogen being injected too, with various upstream emission footprints.

12. What does it all mean for Net Zero strategy and target setting?

In our opinion the main issues and implications for corporates are:

- All companies with significant land sector impacts are going to have to update their GHG inventories in line with the GHG Protocol Land Sector and Removals Guidance. This is irrespective of whether they choose to adopt SBTi Net Zero Corporate Standard validated targets or not.
- The calculation of FLAG emissions and removals will require companies, advisors, and other stakeholders to understand new terminology, definitions and accounting rules.
- SBTi target setting will require companies to split their GHG inventory into non-land and FLAG emissions. To set targets in confidence, companies will need to conduct separate pathway and target setting analyses. Progress on energy/industry and FLAG will need to be reported separately and annually.
- If companies are wishing to count carbon removals as part of their FLAG GHG inventory, they will need to invest in the means to measure it. A practical way forward may be to use established voluntary crediting mechanisms to produce credits, but as an accounting mechanism rather than to produce credits for sale.

For further support or any other queries on net zero strategy please contact [Tim Crozier-Cole, Head of 'Aim for Zero' Corporates.](#)



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