



FROM COMMITMENT TO ACTION: SETTING FLAG SCIENCE-BASED TARGETS

ASIA PACIFIC SESSION

July 2023

PARTNER ORGANIZATIONS









IN COLLABORATION WITH



VIDEO-CONFERENCE GUIDELINES



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- Slides from this webinar will be shared after the event.
- This webinar will be recorded for the benefit of those who cannot attend. The recording will be on the <u>SBTi YouTube</u>.



TODAY'S SPEAKERS





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AGENDA

Intro to the SBTi	5 min
SBTi FLAG & GHG Protocol Land Sector Guidance recap	10 min
GHG Protocol Land Sector Guidance status update	15 min
SBTi FLAG features & requirements	10 min
SBTi FLAG target setting process	5 min
Case studies	10 min
Closing	5 min

INTRODUCTION TO THE SBTi

What is the Science Based Targets initiative?



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The Science Based Targets initiative (SBTi) is a **global body** enabling businesses and financial institutions to set **ambitious emissions reductions** targets in line with the **latest climate science**.

Founding Partners



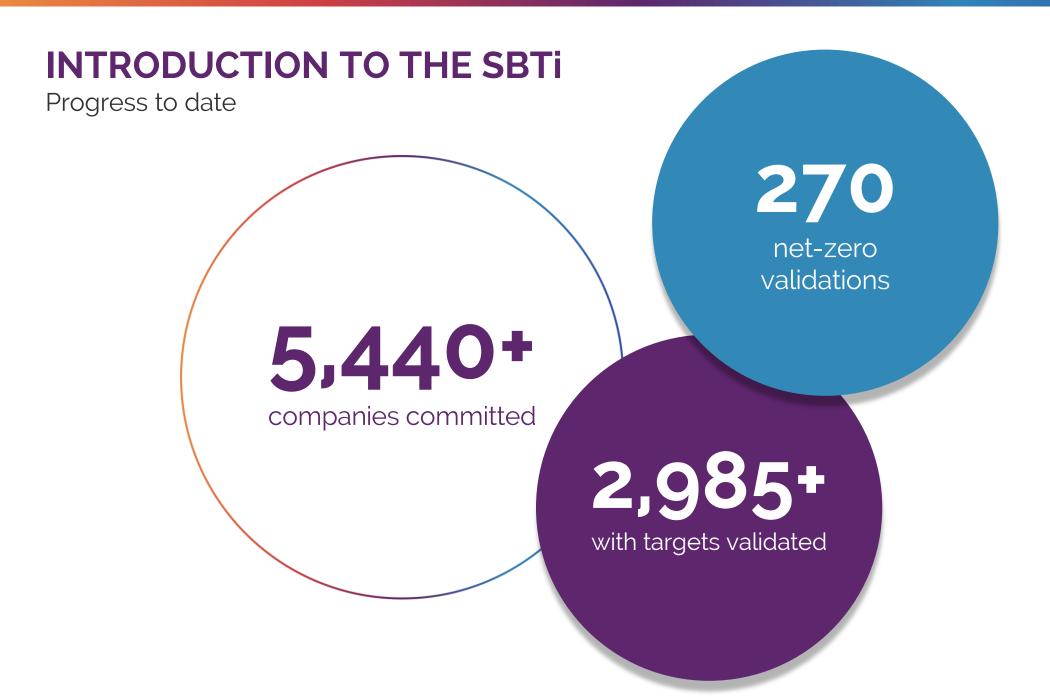






In collaboration with





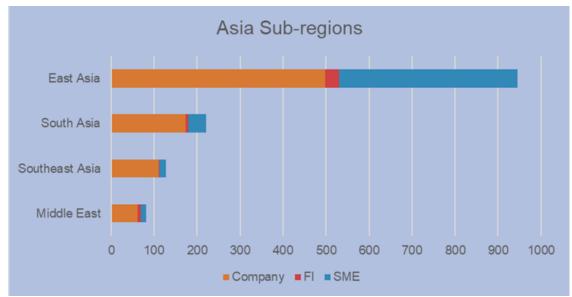


WHERE ARE THE HEADQUARTERS OF THESE COMPANIES?



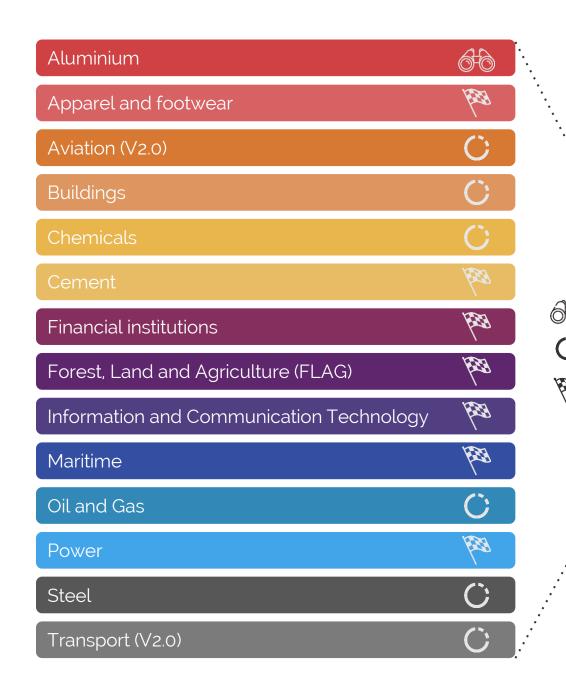
(Committed + targets validated)





Data as of 21 June 2023

Significant part are global multinationals with operations and **supply chains across the globe** (with targets that include developing world).





emissions

Scoping phase

In development

Finalized



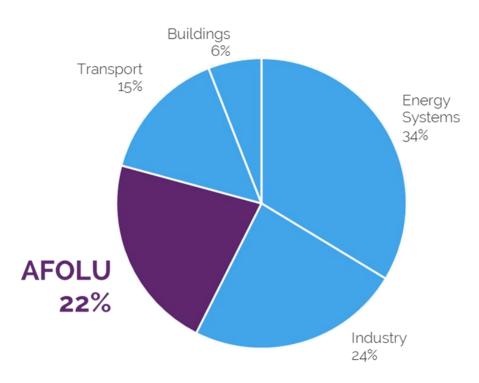
RECAP

Filling the 22% gap of global emissions

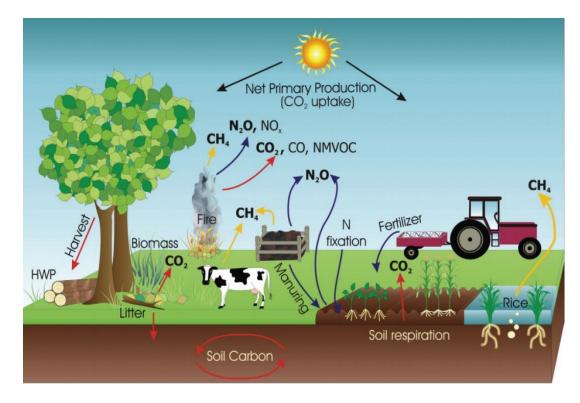


Agriculture, Forestry, and Other Land Use (AFOLU) emissions represent ~22% of global annual GHG emissions

Standards are needed to comprehensively account for and cover these emissions in target setting



Data Source: IPCC AR6



NEW GUIDANCE ON GHG ACCOUNTING & TARGET SETTING

Sponsor



Title

Land Sector & Removals Guidance

Scope

GHG Accounting Guidance

Developers

WRI, WBCSD

Status

Currently in <u>draft</u>



Forests, Land, & Agriculture (FLAG) Guidance

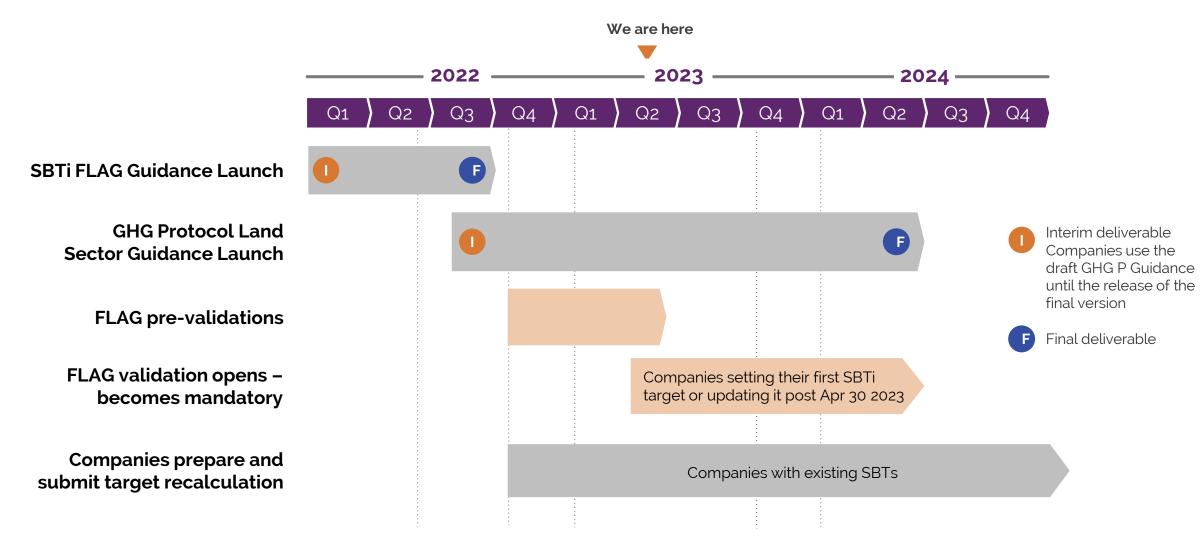
Target-Setting Guidance

WWF, SBTi

Released Sep 2022

SBTi FLAG & GHG P LAND SECTOR GUIDANCE TIMELINES





FREQUENTLY ASKED QUESTIONS





My company will set a net-zero target this year. Can we wait until end-2024 to set a FLAG target?

No, since May 2023, companies that meet FLAG criteria as per <u>FLAG-C1</u> and that wish to set net-zero targets must also include FLAG near-term targets.

? If my company sets a FLAG target this year, should the FLAG target be recalculated once the final GHG Protocol Land Sector Guidance is released?

No, companies setting FLAG targets in 2023 using the draft version of the <u>GHG Protocol Land Sector</u> and Removals Guidance will not need to update their FLAG targets outside of their regular SBTi target update cycle.





Greenhouse Gas Protocol Land Sector and Removal Guidance

Purpose of the guidance

The GHG Protocol Land Sector and Removals Guidance is intended to support companies by providing clarity on the steps, methods and data needed to calculate GHG emissions and removals from land-based activities and technological CO₂ removal activities.

Relationship to other standards

Companies should use this guidance in combination with the *Corporate Standard* and the *Corporate Value Chain* (Scope 3) Standard.

Intended audience

Companies and other organizations in:

Agricultural, forestry, or other land-based value chains, including those that own or control land; supply to producers; purchase, consume, process or sell food, fibre, feed, bioenergy or other biogenic products; and store biogenic CO₂; and

Technological CO₂ removal (TCDR) value chains, including those that own or control TCDR operations; purchase, consume, process or sell TCDR products; and store technologically removed CO₂.

Scope of the guidance

Corporate-level accounting and reporting of emissions and removals across scopes 1, 2 and 3

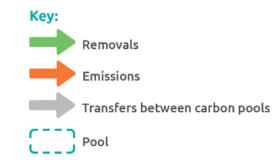
GHG emissions from landuse change and land-based activities and CO₂ removals and storage.

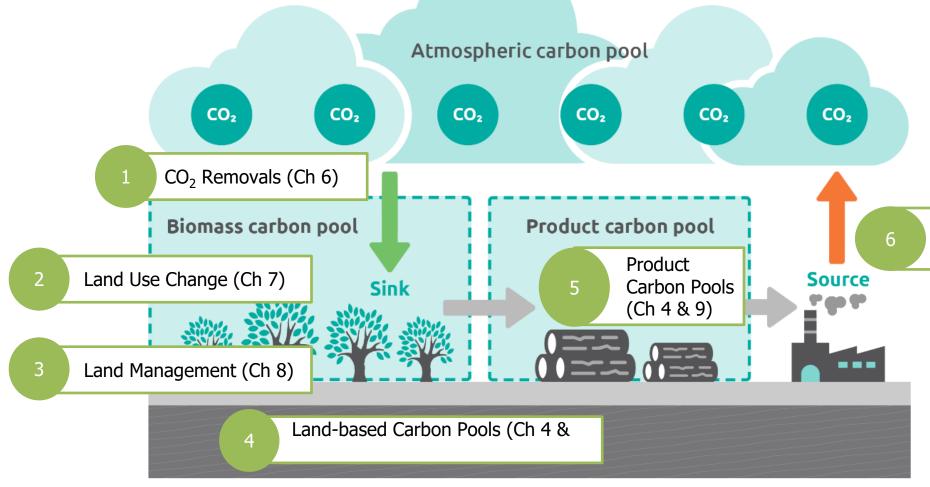






Overview of New Land Sector Activities





Biogenic Product Emissions (Ch 9)



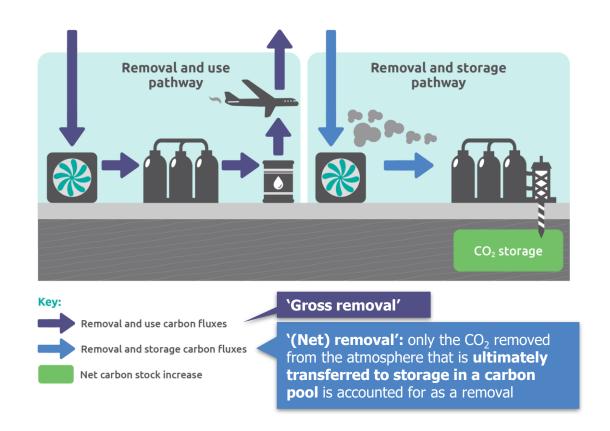
1 CO₂ Removals – background

Removal definition

A removal is defined as a process that includes two distinct elements:

- transfer of GHGs from the atmosphere via sinks (the process that removes GHGs from the atmosphere); and
- 2) **storage** of carbon or CO₂ within **pools** (the physical reservoir or medium where the removed carbon or CO₂ is stored).

Removal and use vs. removal and storage









1 CO₂ Removals – draft requirements

Credible removals will be accounted through ensuring the **permanence and conservativeness** principles are followed. These will be satisfied through the following requirements:

Ongoing monitoring Traceability Primary data 4 **Uncertainty** Reversals

Permanence: Ensure mechanisms are in place to monitor the continued storage of reported removals, account for reversals, and report emissions from associated carbon pools.

The **conservativeness principle** necessitates erring on the side of caution in case of any ambiguity.



2 Land use categories and land use change

Six types of land use categories (IPCC1)

Land use change (LUC)



Forest Lands

- Managed forest lands
- Plantation forests



Grasslands

- Rangeland
- Managed grasslands
- Pasture / Silvopasture



Croplands

- Farms with annual crops
- Farms with perennial crops
- Agroforestry

LUC can be represented by:

- a change from one category to another
- lands remaining within the same category over time but changing from one land use subcategory to another



Wetlands

- Water bodies / Reservoirs
- Temporarily flooded land
- Paludiculture



Settlements

- Cities / Communities
- Infrastructure
- Commercial development



Other Lands

- Deserts
- Barren land
- Ice-covered surfaces

LUC can be quantified using: Direct land use change (dLUC)

Calculated at the farm or land management unit level

Statistical land use change (sLUC)

Calculated at a landscape or jurisdictional level







2 Land tracking categories

Actions to reduce LUC emissions and/or other emissions in scopes 1, 2 and 3 can lead to increased LUC on land outside of a company's inventory boundary. To track systemic effects, companies shall choose at least one metric to report



Indirect land use change (iLUC)



Carbon opportunity costs (COCs)



Land occupation (LO)





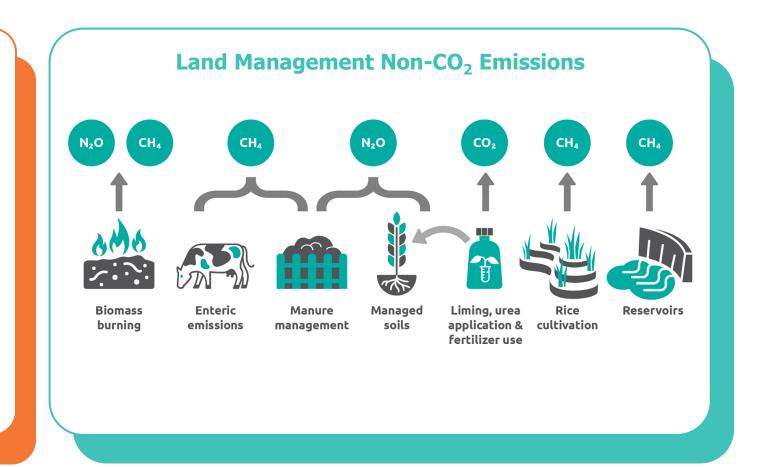
3 Land management

Land Management Net CO₂ Removals and Emissions

Management practices on lands remaining in the same land use such as:

- harvesting and forest rotation periods,
- replanting,
- species selection,
- fire management,
- site preparation,
- crop tillage and residue management,
- crop rotations or intercropping,
- soil amendments, and
- conservation buffers and set aside lands

can **increase or decrease the total carbon stocks** in landbased carbon pools over time.

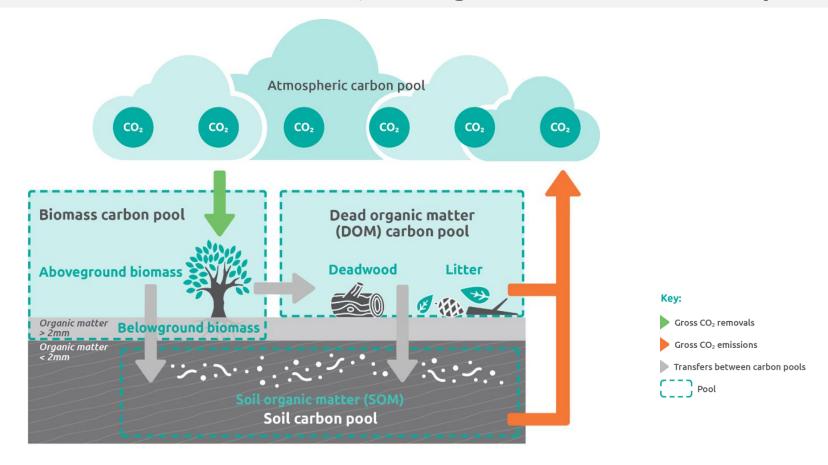






4 Land-based carbon pools

A land-based carbon pool is the carbon in **terrestrial biomass**, **dead organic matter** and **soil carbon pools**









Product carbon pools

Biogenic products begin as raw products, such as logs or agricultural goods, and later become semi-finished or intermediate and, in the end, final products through processing and manufacturing as they proceed through the value chain.

Types of biogenic products (non-exhaustive)







Crops



Animal products



Bioenergy





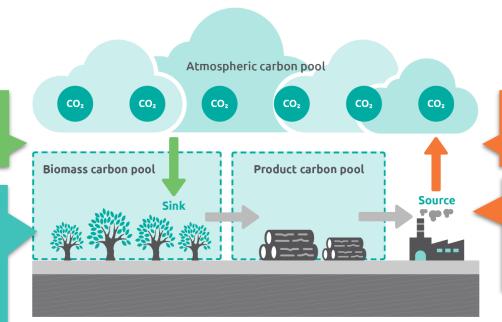
6 Biogenic CO2 emissions

Biogenic CO_2 is reported as the net biogenic CO_2 flux based on net land carbon stock changes in the relevant scope. As net emissions are reported in the relevant scope gross biogenic CO_2 removals and gross biogenic CO_2 emissions are separately reported for transparency. Biogenic CH_4 or N_2O is reported as emissions (non-land) in the relevant scope.

Land carbon stock change and gross biogenic CO₂ emissions

Gross biogenic land CO₂ removals are separately reported

Net biogenic CO₂ emissions or removals are accounted by estimating the net land carbon stock change and reporting as land emissions in the relevant scope



Gross biogenic product CO₂ emissions are separately reported

Biogenic product CH₄ and N₂O emissions are reported as emissions (non-land) in the relevant scope







Frequently Asked Questions

- How can I account for emissions when data is not available, or we don't have the resources to collect it?
- How to get engaged with GHG Protocol on further standard development?





KEY FEATURES & REQUIREMENTS OF FLAG



- FLAG covers land emissions and biogenic removals.
- FLAG targets are separate from energy/industry targets.
- FLAG offers options for demand-side and supply-side companies:
 - Sector approach.
 - Commodity approach.
- FLAG requires a **no-deforestation commitment**.
- FLAG does NOT include offsets.
- FLAG "designated sectors" and emissions threshold indicate which companies need to set FLAG targets.



WHAT DOES FLAG COVER?

FLAG emissions and removals categories



CO₂

LAND USE CHANGE

(LUC) Emissions

- Deforestation
- Forest degradation including conversion to plantation per GHG Protocol
- Coastal wetlands conversion mangroves, seagrass and marshes
- Peatlands conversion/draining/burning
- Savannas & natural grasslands conversion

CO₂ CH₄ N₂O

LAND MANAGEMENT

(non-LUC) Emissions

- Enteric emissions
- Flooded soil for lowland rice
- Manure management
- Agricultural waste burning
- Fertilizer
- Crop residue
- Fertilizer production
- Machinery used on farm
- Transport of biomass

CARBON REMOVALS

& Storage

- Forest restoration / silvopasture
 Occurring on working lands
- Improved forest management
 Optimizing rotation lengths and biomass stocks,
 reduced-impact logging, improved plantations,
 forest fire management
- Agroforestry
 Carbon sequestration from integration of agroforestry into agricultural and grazing lands
- Enhancing soil organic carbon
 Shifting to erosion control, larger root plants,
 reduced tillage, cover cropping, degraded soils
 restoration, biochar amendments

CO2

WHO SETS A FLAG TARGET

SCIENCE BASED TARGETS

These sectors:

- Forest & Paper Products
- Food Production Agricultural Production
- Food Production Animal Source
- Food & Beverage Processing
- Food & Staples Retailing
- Tobacco

Companies in any other sectors that have FLAG related emissions totaling more than 20% of the company's overall emissions across scopes 1,2 and 3.

What if companies fall below the 20% threshold?

- The SBTi recommends (not require) companies that fall below the 20% threshold to set a FLAG target.
- If companies choose not to set a FLAG target: FLAGrelated emissions must still be included in the overall target boundary and accounted for, together with energy/industry (non-FLAG) targets.



SBTI TARGET STRUCTURE & OPTIONS



STRUCTURE

FLAG targets are **in addition to** energy/industry targets.



Uses existing SBTi methods.

Energy/Industry

Target

Covers all non-land emissions.

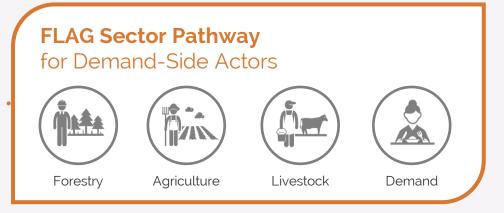


FLAG Target

- Uses new SBTi FLAG Guidance.
- Covers all landrelated emissions.

OPTIONS

Two pathways have been defined for FLAG.



Commodity Intensity Pathway for Supply-Side Actors

11 Commodities

Beef Timber Maize Dairy Rice Wheat Pork Soy Leather

Poultry Palm Oil









LAND CONVERSION

Emissions (CO2) from Land Conversion

- All land use change/conversion emissions are included in the FLAG target setting pathways.
- Companies must include all land use change/conversion emissions in their inventory 20 years back from their baseline year in alignment with GHG Protocol Land Sector and Removals Guidance.



Companies should follow the **Accountability Framework initiative (AFi)** to meet their noconversion and no-deforestation targets.

NO-DEFORESTATION COMMITMENT REQUIREMENT



- The commitment must cover a company's entire value chain.
- Deforestation accounts for 80% of LUC-related GHG emissions.

Companies choosing to set FLAG targets after the release of the final version of the GHG Protocol Land Sector and Removals Guidance will still be expected to commit to no-deforestation upon submission, with a target date no later than Dec 31, 2025.



FREQUENTLY ASKED QUESTIONS





Are emissions from wetlands conversion and peat-burning to be included in a FLAG target?

Yes, all emissions from land conversion must be included in a FLAG target. These emissions must be accounted for in line with the GHG Protocol Land Sector and Removals guidance

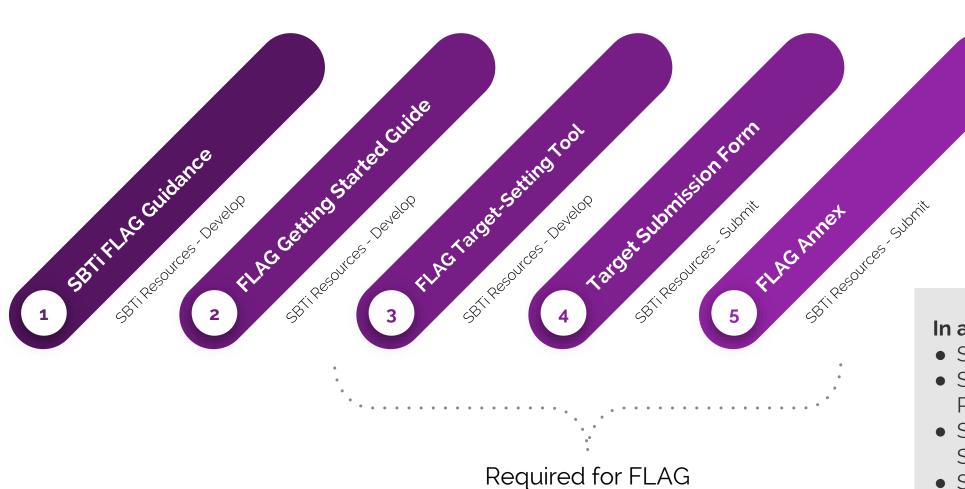
What is considered as working lands?

Working lands are lands in a company's value chain that are productive. For instance, removals due to silvopasture would be considered as occurring on working lands but removals from afforestation on lands that are outside of a company's supply chain would not count towards a FLAG target.



RESOURCES AVAILABLE





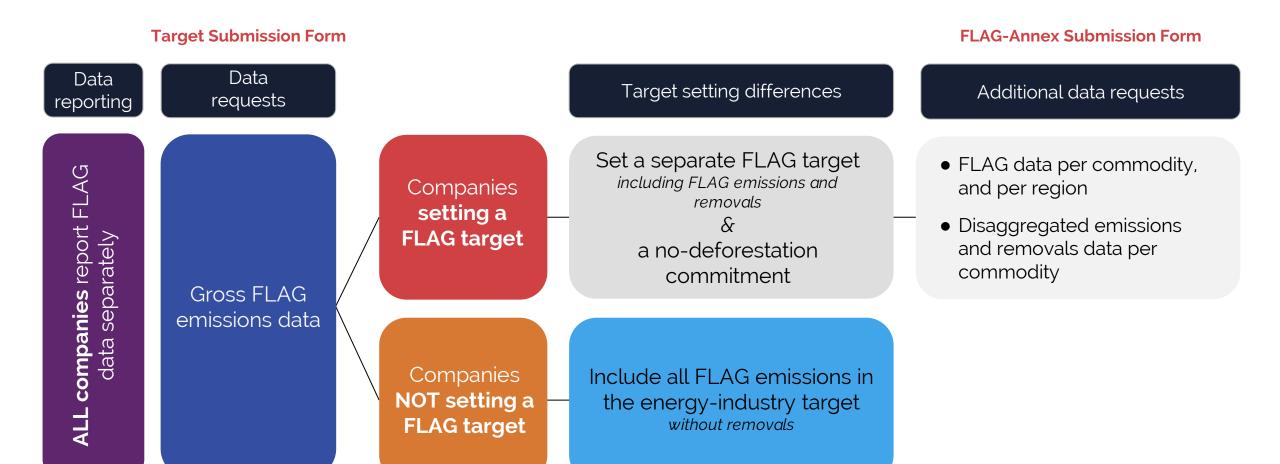
target submission

In addition to:

- SBTi Corporate Manual.
- SBTi Target Validation Protocol.
- SBTi Net-Zero Standard.
- SBTi Target Setting Tool.

FLAG SUBMISSION & DATA REQUESTS





FREQUENTLY ASKED QUESTIONS





My company has previously validated science-based targets and has to include a FLAG target. Do we need to update our energy/industry targets?

Yes, to ensure that emissions have been properly separated between energy/industry and FLAG targets, a near-term energy/industry target update is required along with a FLAG target submission.

How to set a target for a corporate with diverse areas of business ranging from steel production to farming and services?

Companies in several sectors must use specific guidance for existing SBTi sectors (for example, power sector, maritime sector, FLAG). For other sectors companies may set 1.5°C aligned targets using the cross-sector absolute pathway.



FLAG TARGET SETTING EXAMPLES



COMPANY A

FOOD RETAIL COMPANY

required to set a FLAG target

- Company A is a large Chinese food retail (FLAG designated sector) company that specializes in grocery items and general merchandise.
- Company A has an existing science-based target and need to proceed with the target recalculation to include a FLAG target.

COMPANY B

PALM OIL COMPANY

required to set a FLAG target

- Company B is a large palm oil company (FLAG designated sector) based in Indonesia.
- Company B will set science-based targets for the first time.

COMPANY A: TIMELINES & PROCESS





Company A has an existing SBT and has to recalculate it to include a FLAG target.

DEADLINE TO SUBMIT

 The company must submit within 6 months after the release of the GHG Protocol land sector Guidance.

TOOL USAGE

 The company uses the FLAG Sector tool appropriate for companies operating in the demand side.

PROCESS

 The company intends to update near-term energy/industry and submit FLAG targets at once.

COMPANY A: DOCUMENTS TO SUBMIT

Target-Setting Tools

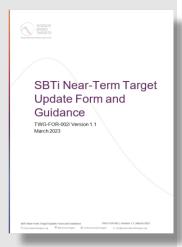
In the target validation process, Company A submits the SBTi tools used to calculate FLAG and industrial/energy targets along with the target submission forms.



Near-Term Target Update Form

Company A provides information related to energy/industrial GHG emissions in this form.

Note: Existing land- related emissions are removed from non-FLAG inventory.

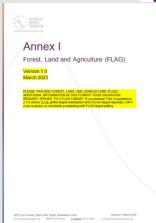


FLAG Annex

Company A enter in the FLAG Annex form the requested information related to land-based GHG emissions.

This includes emissions per commodity and per region. Disaggregation

of LUC, land management and removals per commodity.

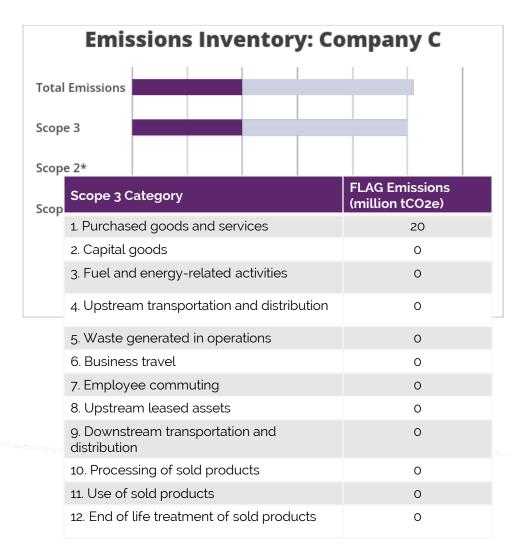


SAMPLE EMISSIONS INVENTORY (COMPANY A)



2019	FLAG Million tCO2e	Energy / Industry Million tCO2e	Total Emissions	
Scope 1	Ο	1	1	
Scope 2*	Ο	0.015	0.015	
Scope 3	20	30	50	
Total	20	31.015	51.015	

^{*}Company A uses a location-based approach to calculate scope 2 emissions



SECTION 1. INPUT DATA



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Target Setting Approach

SDA scenario

FLAG Base year

FLAG Target year

FLAG Base year emissions <u>not</u> captured under commodity-specific pathways

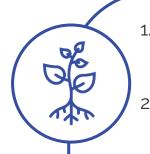
Absolute Contraction

1.5C

2019

2027

20,000,000

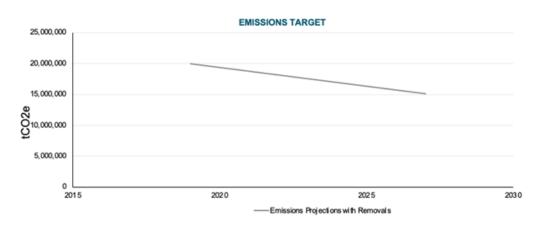


1. Input base year, target year, and base year emissions.

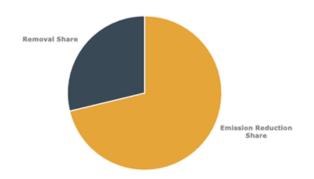
2. View sector-based target.

SECTION 2. FLAG ABSOLUTE CONTRACTION RESULTS - 1.5C

	Base Year Emissions (2019) (tCO2e)	Target Year Emissions (2027) (tCO2e)	Total Abatement (tCO2e)	Total Abatement %	Emissions Reduction (tCO2e)	Emission Reduction %	Removals Reduction (tCO2e)	Removals %
Absolute Contraction: Emission Reductions & Removals	20,000,000	15, 150, 949	4,849,051	24.2%	3,454,103	17.27%	1,394,948	6.97%



Share of emission reductions & removals Note: This are the modeled share of emission reductions and removals. It is not required to maintain this ratio for the purpose of meeting a target.



SECTION 3. TARGET MODELING DATA

Year	2018	2019	2020	2021	2022	2023	2024	2025
Absolute Contraction with Removals		20,000,000	19,393,869	18,787,737	18,181,606	17,575,475	16,969,343	16,363,212

THE SECTOR PATHWAY WILL FORM A TOTAL TARGET FOR COMPANY A:





*The target includes FLAG emissions and removals.



TOTAL FLAG SBT SUMMARY

*From base year 2019	FLAG Base Year	FLAG Target Year	FLAG Base Year Absolute Emissions (t CO2e)	FLAG Target Year Absolute Emissions (t CO2e)	Absolute Abatement (t CO2e)	Total Abatement %	Emissions Reduction %	Removals %
Commodities	2019	2027	0	0	0			
Rest of Sector	2019	2027	20,000,000	15,150,949	4,849,051	24%	17%	7%
All	2019	2027	20,000,000	15,150,949	4,849,051	24%	17%	7%

COMPANY B: TIMELINES & PROCESS





Company B will set SBTs for the first time.

DEADLINE TO SUBMIT

• The company submit a FLAG target upon submissions.

TOOL USAGE

 The company uses the specific palm oil pathway in the FLAG commodity tool to calculate a FLAG target for palm oil; and the FLAG sector tool to calculate the target for the portion of cocoa and coffee produced by the company.

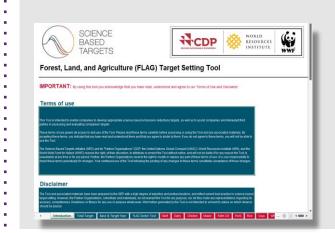
PROCESS

 The company submits near-term (non-FLAG) and FLAG targets at once.

COMPANY B: DOCUMENTS TO SUBMIT

Target-Setting Tools

In the target validation process, Company B submits the SBTi tools used to calculate FLAG and industrial/energy targets along with the target submission forms.



Near-Term Target Submission Form

Company B provides information related to energy/industrial GHG emissions in this form.



FLAG Annex

Company B enter in the FLAG Annex form the requested information related to land-based GHG emissions.

This includes emissions per commodity and per region. Disaggregation of LUC, land management

and removals per commodity.

Annex I

Forest, Land and Agriculture (FLAG)

Wession 10

March 2023

PLAGE ROYSE FOREST, LND, AND AGRICATIVE (FLAG)

PLAGE ROYSE FOREST, LND, AND AGRICATIVE (FLAG)

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SAMPLE EMISSIONS INVENTORY (COMPANY B)



2020	FLAG Million tCO2e	Energy / Industry Million tCO2e	Total Emissions	
Scope 1	2.1	0.6	2.7	
Scope 2*	Ο	0.010	0.010	
Scope 3	0.55	0.23	0.78	
Total	2.65	0.61	3.481	

^{*}Company B uses a location-based approach to calculate scope 2 emissions

FLAG SCOPE 1

 Includes all emissions occurring from the company's oil palm plantations. Most of the company emissions comes from land conversion.

FLAG SCOPE 3

Includes all land emissions
 occurring from external sources
 (25% of the company's processed
 fruits come from land partners).

SECTION 1a. INPUT DATA

	Units	Region 1
Commodity	-	Palm Oil
Region	-	Indonesia region
Base year (BY)	-	2020
Production BY	t Crude oil	1 000 000
Total commodity emissions	t CO2e	2 650 000
Non-LUC emissions *	t CO2e	
LUC emissions *	t CO2e	
Removals	t CO2e	-411 000
Net Emissions	t CO2e	0
Target year (TY)	-	2030
Production in Target Year	t Crude oil	1 050 000

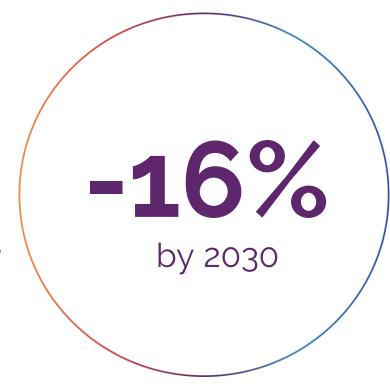


THE COMMODITY PATHWAY WILL FORM A TARGET FOR COMPANY B:



Company B commits to reduce absolute scope 1 and 3 FLAG GHG emissions by 16 % by 2030 from a 2020 base year*.

*The target includes FLAG emissions and removals.



TOTAL FLAG SBT SUMMARY

	FLAG Base Year	FLAG Target Year	FLAG Base Year Absolute Emissions (t CO2e)	FLAG Target Year Absolute Emissions (t CO2e)	Absolute Abatement (t CO2e)	Total Abatement %	Emissions Reduction %	Removals %
Commodities	2020	2030	2 239 000	1 891 328	347 672	16%	28%	-12%
Rest of Sector	2020	2030						
All	2020	2030	2 239 000	1 891 328	347 672	16%	28%	-12%



SBTi FLAG RESOURCES



The SBTi has developed a series of resources to support

companies in their FLAG target-setting process:

- SBTi FLAG Guidance.
- SBTi FLAG Target-Setting Tool.
- SBTi FLAG Methods Addendum.
- SBTi FLAG Getting Started Guide.
- Additional resources available in <u>SBTi's</u> <u>FLAG page</u>.
- Target submission forms.







THE TIME TO ACT IS NOW!

- We are urgently calling on all companies to set science-based net-zero targets.
- Join <u>our mailing list</u> to receive updates.
- The SBTi FLAG Guidance and additional resources, as well as the recording of this webinar can be found on the <u>SBTi FLAG</u> <u>webpage</u>.
- Should you have any questions, contact us at <u>dedy.mahardika@cdp.net</u> and <u>flag@sciencebasedtargets.org</u>.



THANK YOU!

PARTNER ORGANIZATIONS



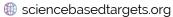








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