



DEFORESTATION AND CONVERSION FREE COMMODITIES ARE CRITICAL FOR A 1.5 °C PATHWAY

SUMMARY SLIDE DECK

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Executive Summary

1

Climate targets (1.5°C) **cannot be met without action from the food and land sector**

2

Beef, palm oil, and soy are key drivers of these emissions within the food sector – they represent **40-50% of agricultural land use change emissions**

3

To hit global emissions targets and avoid catastrophic consequences of climate change, **total emissions from these**, and all other **commodities need to decrease dramatically**

4

Hence, an urgent and critical step is to **cut out deforestation and conversion of other natural ecosystems from all supply chains** – this requires both **cut-off & target dates**

5

Incremental change will not suffice, **supply chain transformation is needed** - including companies' own supply chains

6

There are **simple, practical steps companies can follow** to achieve this supply chain transformation



Setting the scene: Definition of key GHG emissions sources in the production of agricultural commodities

Land Use Change (LUC) emissions

Net emissions from agriculturally driven land-use change (LUC) include conversion or degradation of forests, peatlands, coastal areas, grasslands and other ecosystems to crop or pasture, as well as peat emissions on agricultural land.

Agricultural sequestration

Carbon stock enhancement on agricultural lands through agricultural soil carbon or vegetation (i.e. agroforestry)

Energy, industry & waste emissions

Downstream emissions (energy use, transport, industrial processes, packaging, retail, consumption, and waste management) as well as on-farm emissions from fossil fuel sources (e.g., diesel and electricity use). Most of these emissions are post-farm-gate.

Agricultural non-CO₂ emissions

Agricultural non-CO₂ emissions from livestock (enteric fermentation and manure), agricultural soils (synthetic fertilizer and manure application, and crop residues), agricultural biomass burning, and rice cultivation



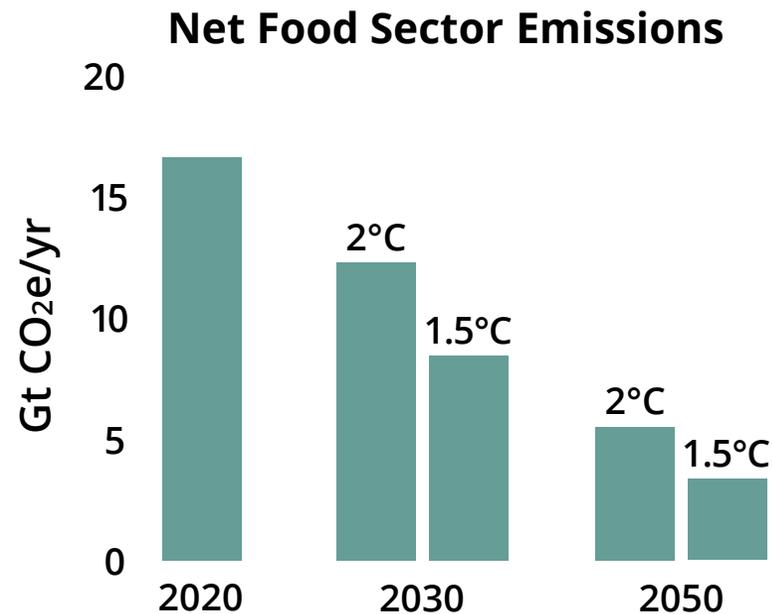
1 Climate targets cannot be met **without action from the food and land sector**

1/3

of total GHG emissions are contributed by the food system



Emissions from the food system need to decline by about 80% by 2050 for aligning with a 1.5 degree pathway



- This 80% absolute decrease in emissions **includes elimination of commodity driven deforestation**
- Land sector is also **expected to sequester carbon through soils and agroforestry biomass**

2 The habitat conversion of three commodities has especially large emissions: **beef, palm oil, and soy**

40-50%

of agricultural land-conversion emissions caused by three commodities



Land conversion for cattle is responsible for **17-34%** of food system LUC emission (4-9% of total food systems emissions)



Land conversion for soy is responsible for **5-14%** of food system LUC emissions (1-3% of total food system emissions)



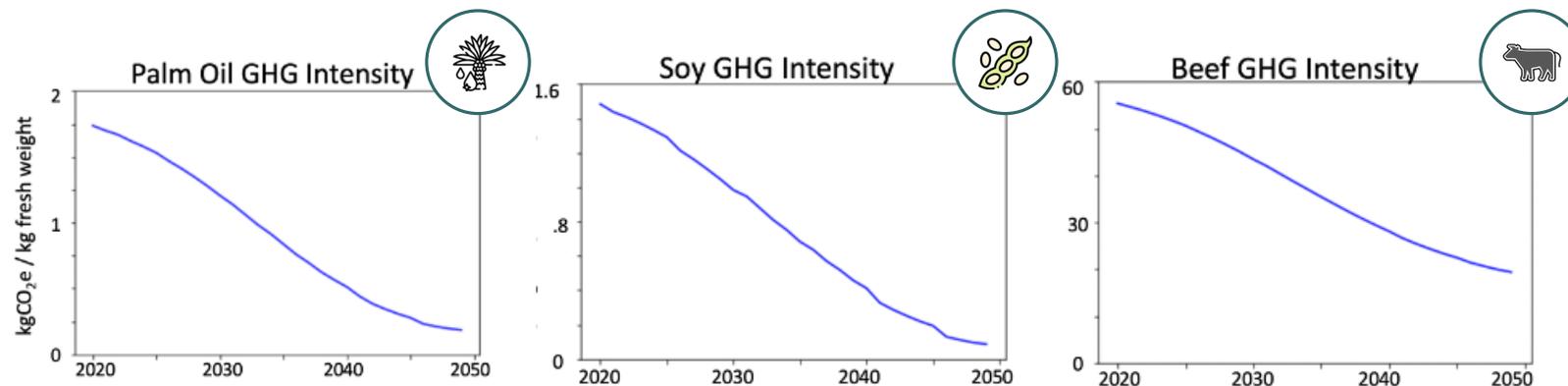
Land conversion for palm oil is responsible for about **8%** of food system LUC emissions (~2% of total food system emissions)



3 To hit global emissions targets, total **commodities emissions need to decrease dramatically**

The SBTi-FLAG

established 1.5°C aligned GHG emission reductions and intensities reduction for various commodities based on the IMAGE 3.0 integrated assessment model and scientific literature



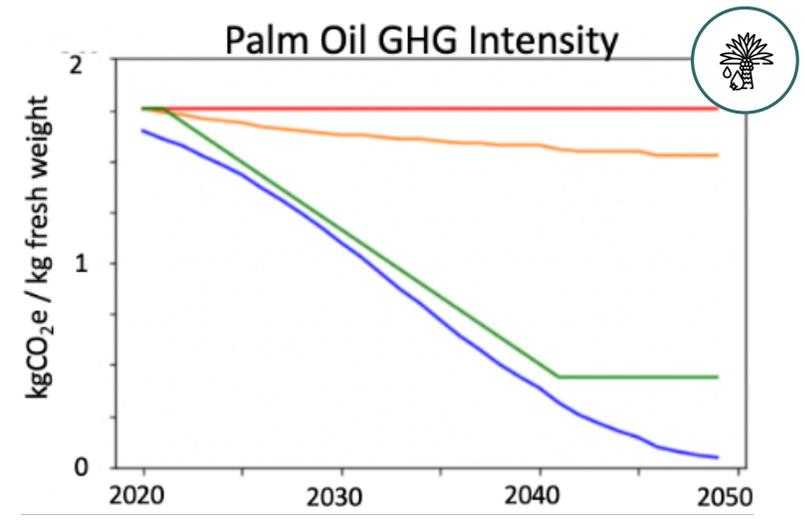
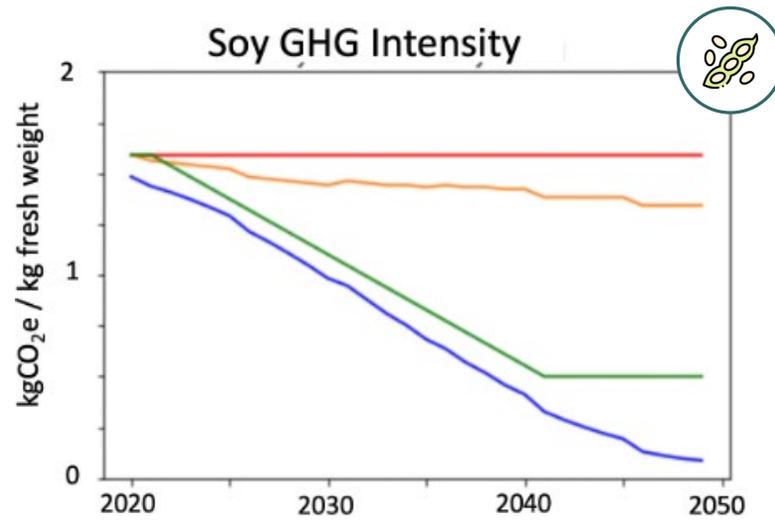
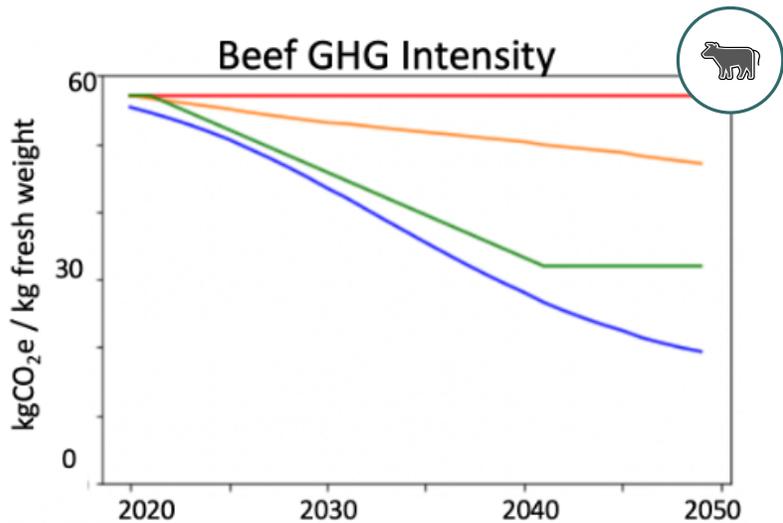
Key findings:

- Targets include a **consistent decrease in conversion until its elimination in 2030**
- Targets include **reductions in on-farm emissions**, and **sequestration of carbon in agricultural soils and biomass**
- **High GHG reduction per product unit** as overall food production increases due to strong population growth



4a As an urgent and critical step, companies need to **cut-out deforestation and conversion** from their supply chains

Addressing only on-farm emissions (orange lines) does not bring us close to the 1.5°C aligned target (blue lines) for all 3 commodities



■ Business-as-usual ■ Action: on-farm practices only ■ Action: LUC only is addressed ■ Target intensity

Ignoring LUC emissions (green line) across beef, palm oil, and soy production would accumulate **more than 6Gt CO₂ excess emissions globally by 2030 and 50Gt by 2050**



4b Cut-off and target dates are essential for any emission reductions plan to be credible



What
companies
really need:



A cut-off date: A reference date after which no further deforestation, conversion, or related human rights violations are permissible. This date should be as early as possible and no later than January 2020.



A target date: The date in the future by which the whole supply-chain is free of deforestation and conversion. This should be as early as possible and no later than 2025.

5 However, incremental change will not be enough – **supply chain transformation is needed** to drastically reduce emissions

The amount of supply contaminated by deforestation & conversion is large...



2% of current production is on deforested land

11x higher GHG intensity per product from deforested vs. not



50% of current production is on deforested land

6x higher GHG intensity per product from deforested vs. not



8% of current production is on deforested land

13x higher GHG intensity per product from deforested vs. not



Each company needs to avoid this contaminated supply, especially as new deforestation and conversion is occurring – DCF needs to be the new "business-as-usual"

6 There are **simple, practical steps companies can follow** to achieve this supply chain transformation

1.

Assess current exposure to deforestation & conversion among all operations (with existing tools)

2.

Establish and disclose a plan to eliminate all deforestation & conversion from supply chains

The plan must include:

- Cut-off date **as early as possible, and no later than 2020**
- **Target date by 2025**
- **All natural ecosystems** considering above and below ground carbon
- **Plan for full traceability to farm level** (for all direct and indirect suppliers)
- Require and support **direct and indirect suppliers to take equivalent action across their entire operations**
- Mechanisms to **verify on implementation**
- **Publicly disclose the plan**
- **Monitor and publicly disclose progress** towards meeting the plan's goals



