LAND USE *for* NET ZERO >>> HUB

Within Value Chain Mitigation

How organisations can reduce their Scope 3 GHG emissions via their agricultural supply chains

Green Finance Topic Advisory Group with Emily Scott, 3Keel
9th July 2025

UK Research and Innovation
Department for Environment Food & Rural Affairs
Department for Energy Security & Net Zero
Llywodraeth Cymru Welsh Government
Scottish Government Riaghaltas na h-Alba
DAERA Department of Agriculture, Environment and Rural Affairs
An Roinn Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe
Depairtment o' Fairmin, Environment an' Kintra Matthers
www.daera-ni.gov.uk

Housekeeping & Agenda

- Housekeeping:
  - Interactive seminar
  - Names and Organisations in the Chat
  - Microphones Off, Q&A at the end
  - Recording to be uploaded to LUNZ website,
- Agenda:
  - *Introduction: Matthew Orman, LUNZ Hub & Sustainable Soils Alliance (10 mins)*
  - *Within Value Mitigation Report, Emily Scott, 3Keel (30 mins)*
  - *Q&A, Professor Ania Zalewska, University of Leicester (30 mins)*
  - *Thank you & Next Steps*

Transforming Land Use For Net Zero, Nature and People: The Land Use for Net Zero (LUNZ) Hub

- 34 **member organisations**, including agricultural advisory organisations, arms-length agencies, academics, green finance, NGOs and an arts collective
- **4 national teams and 1 UK team**
- **3 Work Packages:**
  - WP1: Agile Policy Centre
  - WP2: Transdisciplinary Community
  - WP3: Net Zero Futures Platform

Aim: "to mobilise and support research to work in partnership with government and industry to tackle net zero through action in the UK land sectors."

And 7 Topic Advisory Groups:

- Agricultural Systems
- Soil Health and Carbon Dynamics
- Land Use Change
- Equity, Diversity and Inclusion, and Social Justice
- **Green Finance**
- Digital Opportunities
- Enabling on-the-ground transition

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Defra / DESNZ:
Within Value Chain Mitigation

Update to LUNZ Hub

9 July 2025

Certified B Corporation
This company is committed to accountability, transparency, and continuous improvement.

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UK'S LEADING MANAGEMENT CONSULTANTS 2019 – 2024

About 3Keel

3Keel works with others to **create a better future for people and the environment**

We do this through **ideas, evidence, and by bringing people together**

Certified B Corporation

This company is committed to accountability, transparency, and continuous improvement.

LAND USE for NET ZERO HUB

Key areas of focus for our Agriculture and Landscapes team

Sustainable sourcing strategies

End-to-end support in sustainable and regenerative sourcing for food supply chain businesses.

Monitoring, reporting and verification solutions

Monitoring, reporting and verification approaches from policy to supply-chain implementation.

Landscape transformation

Strategic advice, facilitation and delivery to drive landscape management change and support resilient, multi-functional landscapes.

Landscape Enterprise Networks (LENs)

LENs is a system developed by 3Keel for organising the buying and selling of nature-based solutions: land management measures that deliver ecosystem functions, such as water quality management, flood risk management, resilient supply of crops, carbon, or biodiversity outcomes.

FT FINANCIAL TIMES
statista
UK'S LEADING MANAGEMENT CONSULTANTS
2019 – 2024

Drivers for this work

Collaborative research project **co-funded by DESNZ & Defra**.

Responding to current pressures on corporate entities to work with the agriculture sector to:

Reduce scope 3 emissions from the land-use & agriculture sector	Need for regen ag to support supply chain resilience and provide additional income for farmers	Achieving SBTi Forest Land and Agriculture (FLAG) targets	Aligning with GHGP draft Land Sector Removals Guidance

Huge amounts of interest, but **highly complex and evolving guidance** has created **uncertainty**.

This project was designed to (via principles and commodity scenarios):

1. explore **what 'good' looks like**, and
2. provide **guidance for corporate decision makers** to aid practical implementation.

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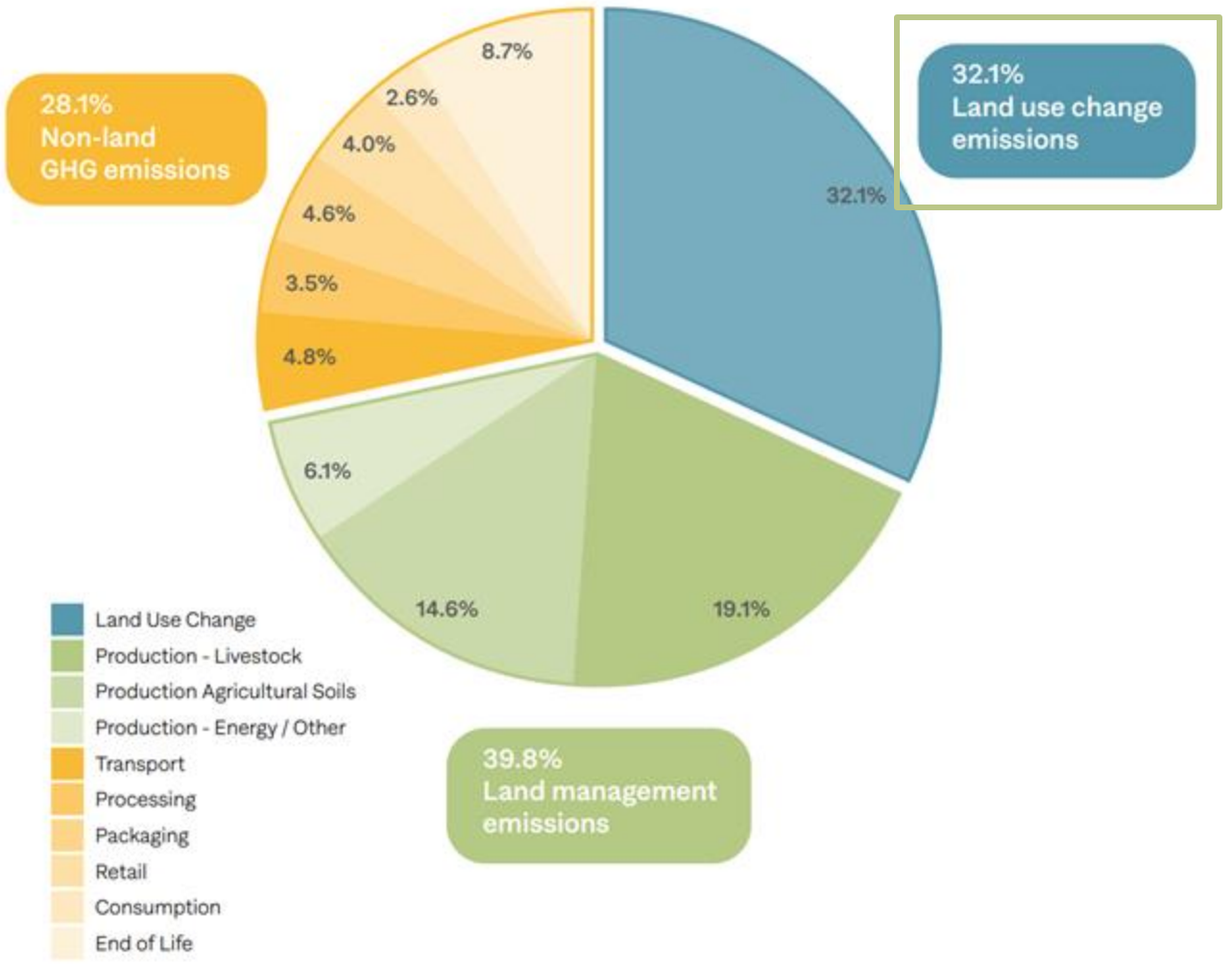
Setting the context

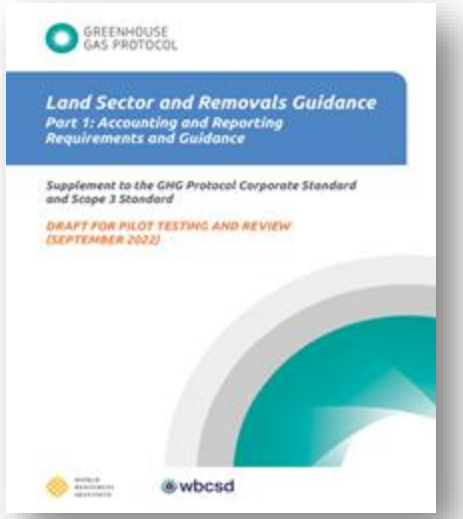
Land use change emissions contribute c. 1/3 of global food system emissions



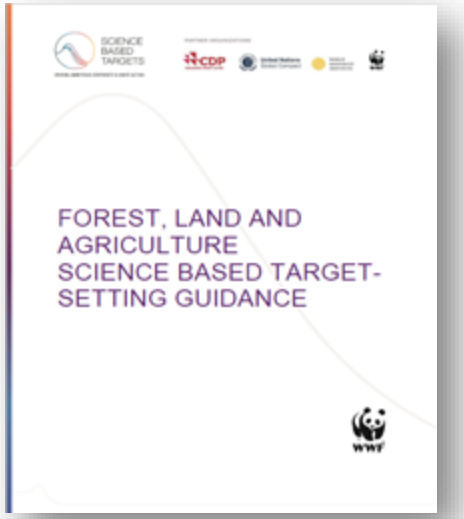
Setting the context

Greenhouse gas accounting & target-setting standards require that land use change is included in inventories.

GHG Protocol Scope 3 Standard



Land Sector and Removals Guidance (Draft)



SBTi FLAG Guidance

SBTi Net Zero Standard

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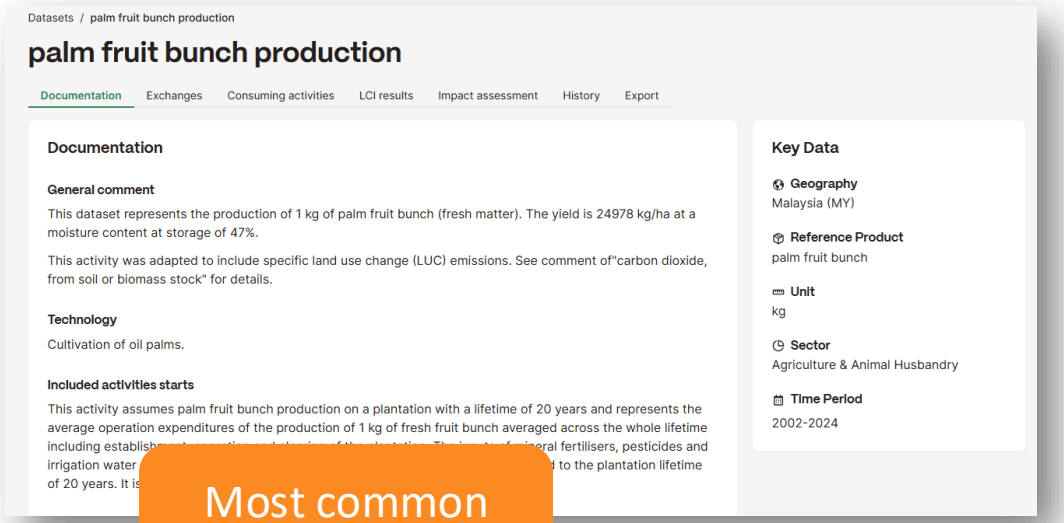
Setting the context

LUC emissions data in GHG reporting are commonly based on LCA databases or farm GHG tools

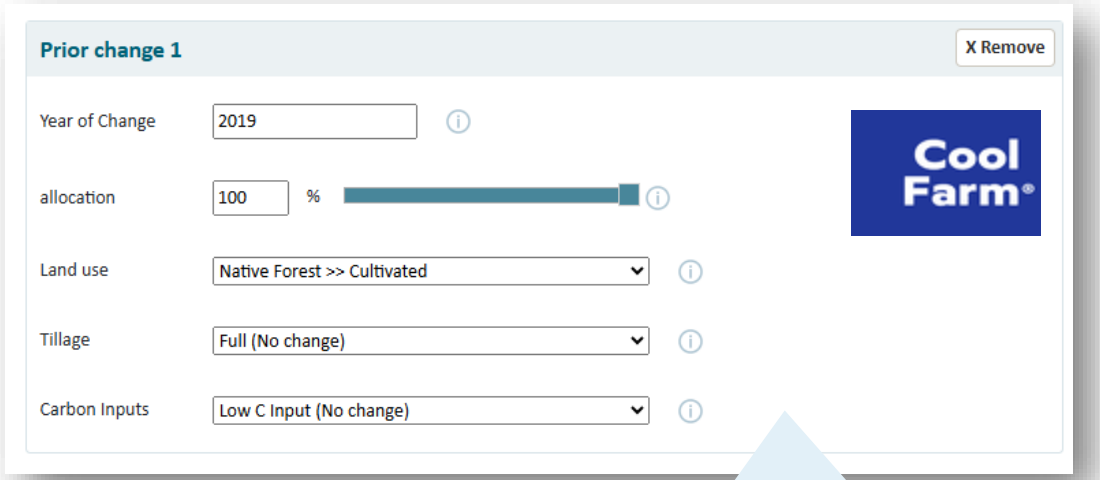
LUC embedded in LCA database



Most common approach

ecoinvent

On-farm LUC tools



NB: Off-farm LUC (e.g. purchased animal feeds) are still based on LCA databases

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Setting the context

The widespread use of sLUC embedded in LCA data has significant limitations, if your goal is to track reductions

Weaknesses of current sLUC data embedded in generic LCAs

Limited to country-level averages

Does not reflect sourcing mix & policies

Uses inconsistent methods over time

Methods do not align with new standards (e.g. discounting method, LUC scope)

Potential implications for corporate GHG inventories

Inaccurate base year

Inability to show DCF investment benefits

No explanation for YoY changes

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So with all that in mind…

Key enablers for accurate reporting:

Accurate (primary) supply chain data

Enhanced traceability

Relationship building within supply chain

Which can then support in achieving corporate goals:

Reduce scope 3 emissions from the land-use & agriculture sector

Need for regen ag to support supply chain resilience and provide additional income for farmers

Achieving SBTi Forest Land and Agriculture (FLAG) targets

Aligning with GHGP draft Land Sector Removals Guidance

Goals of project

01

Provide advice on **practical implementation** of Within Value Chain Mitigation (WVCM)* interventions **for corporate decision makers**

02

Set out:
i) best practice principles and
ii) commodity-specific illustrative scenarios for WVCM

Align with the GHGP LSRG, providing additional **guidance on implementation**.

03

Ensure interventions **provide direct benefits to farmers** and **do not increase burden** (e.g. MRV)

Intended audience: Corporate decision makers and Chief Sustainability Officers in downstream agriculture and land sector businesses (eg. processors, retailers, manufacturers)

* Use of WVCM terminology to be discussed

Defining WVCM for this work

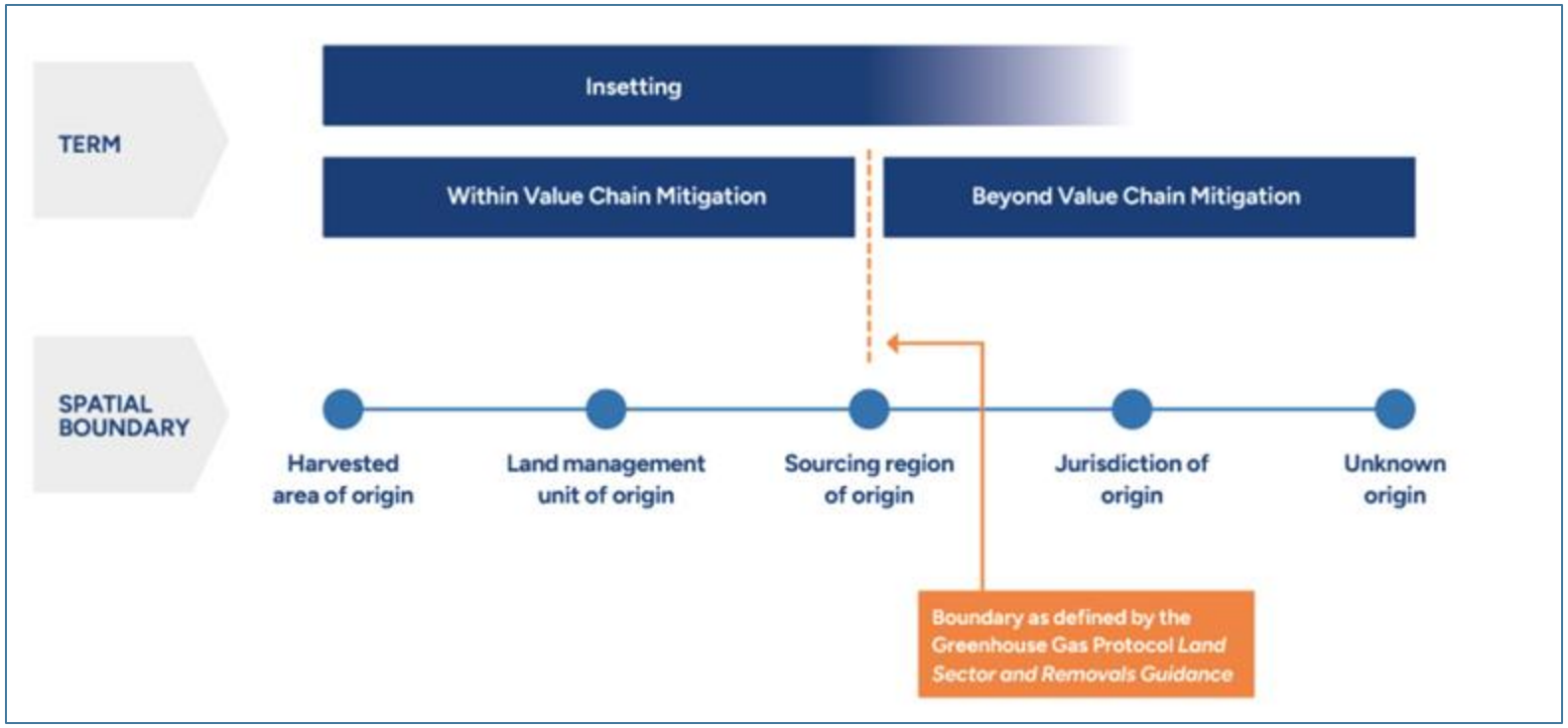
WVCM projects are **interventions within a company's value chain** that are designed to **generate greenhouse gas emission* reductions and/or carbon storage**, and at the same time create positive impacts and improve resilience of communities, landscapes and ecosystems *(adapted from Abatable/International Platform for Insetting, 2023).*

WVCM interventions are typically targeted at the production or rearing stage of agricultural raw materials (pre farm-gate), and are largely based on regenerative agriculture and agroforestry practices.

*specifically scope 3 emissions from land use

Why WVCM?

- WVCM places clear boundaries around the scope: solely **within the value chain***
- Sits in direct opposition to BVCM
- "Insetting" is a commonly used term for activities that include both WVCM and certain Beyond Value Chain Mitigation (BVCM) activities. There is no globally agreed definition of insetting, whereas the **spatial boundaries for WVCM are clear**



* and a small sub-set of adjacent and proximate lands, subject to safeguards to be outlined in the final version of the GHGP's Land Sector and Removals Guidance

Development process

Step 1: Literature review including analysis of:

- **Motivations and opportunities** for engaging in WVCM
- **Current gaps** in guidance
- **Final or draft principles for best practice** currently in existence for WVCM or voluntary carbon markets

Step 2: Principle and guidance initial refinement with Advisory Group support

Step 3: Further refinement through stakeholder workshops

- **x3 workshops with 5-7 attendees in each: i) demand side, ii) supply side, iii) enabling environment**

Step 4: Scenario-specific stakeholder engagement to finesse illustrative scenarios

Uncertainties/challenges identified in research

Uncertainties
1. Scope and boundaries of activities included in WVCM And whether WVCM can extend beyond emission reductions and removals within a company's supply chain
2. How WVCM aligns with, or complements, other approaches Including beyond value chain mitigation and the voluntary carbon market
3. Engaging stakeholders and sharing benefits through the supply chain Including allocation of outcomes to co-funders, and attribution of farm-level outcomes to products
4. MRV - accurately measuring the impact of WVCM activities And how these impacts should be accounted for and reported by organisations, with nuances of how this differs for projects using inventory or intervention accounting

Best practice principles

for organisations considering Within Value Chain Mitigation

Principle 1 – Maximise impact

Principle 1: On-the-ground impact of WVCM is maximised through pre-competitive collaboration within the value chain, and with efforts directed toward delivering multiple outcomes.

Recommendation 1:

Target sourcing regions with greatest potential impact

Recommendation 2:

Activities designed to address multiple outcomes beyond climate mitigation

Recommendation 3:

Leverage pre-competitive collaborations to deliver activity at scale

Principle 2 - support farmers

Principle 2: WVCM activities support farmers to build resilience in a changing climate and provide value to farmers by ensuring they are fairly rewarded for engagement.

Recommendation 4:

Co-develop activities which are tailored to local context alongside farmers, to ensure feasibility and risk sharing

Recommendation 5:

Farmers are fairly rewarded for engagement through fair distribution of value gained

Principle 3 - use robust & proportionate MRV

Principle 3: Monitoring, Reporting, and Verification (MRV) systems for WVCM activities are sufficiently robust to quantify the outcomes of WVCM activities, whilst taking a balanced, harmonised and proportionate approach.

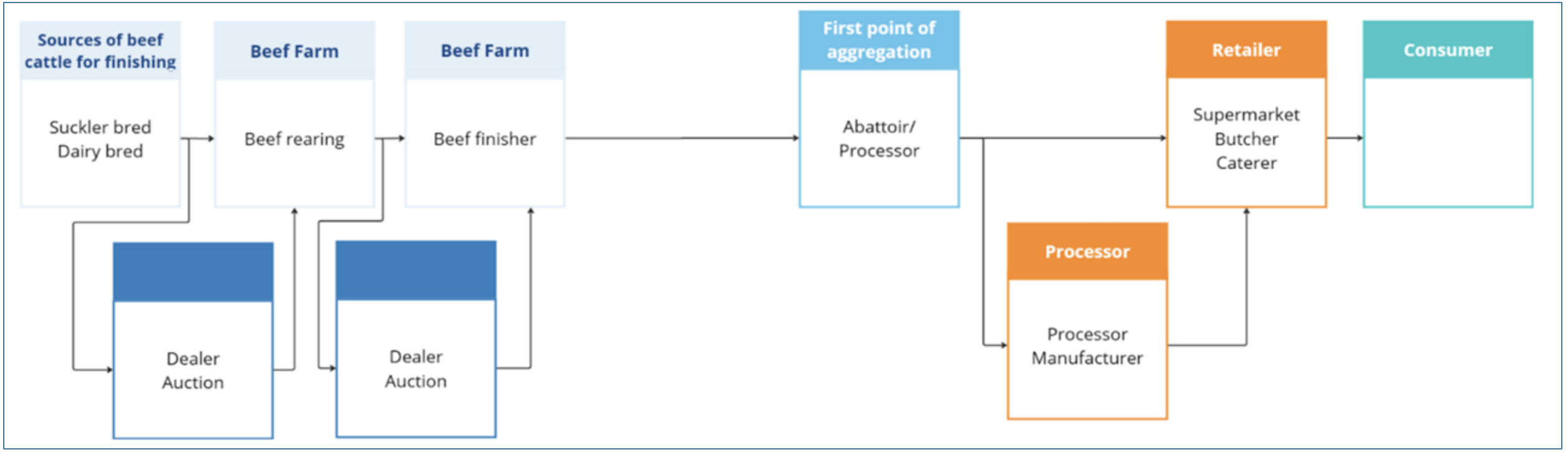
Recommendation 6:

Monitor project impact to support adaptive management, scaling and safeguard against negative outcomes

Recommendation 7:

MRV is proportionate to reporting requirements, with metrics selected in collaboration with farmers

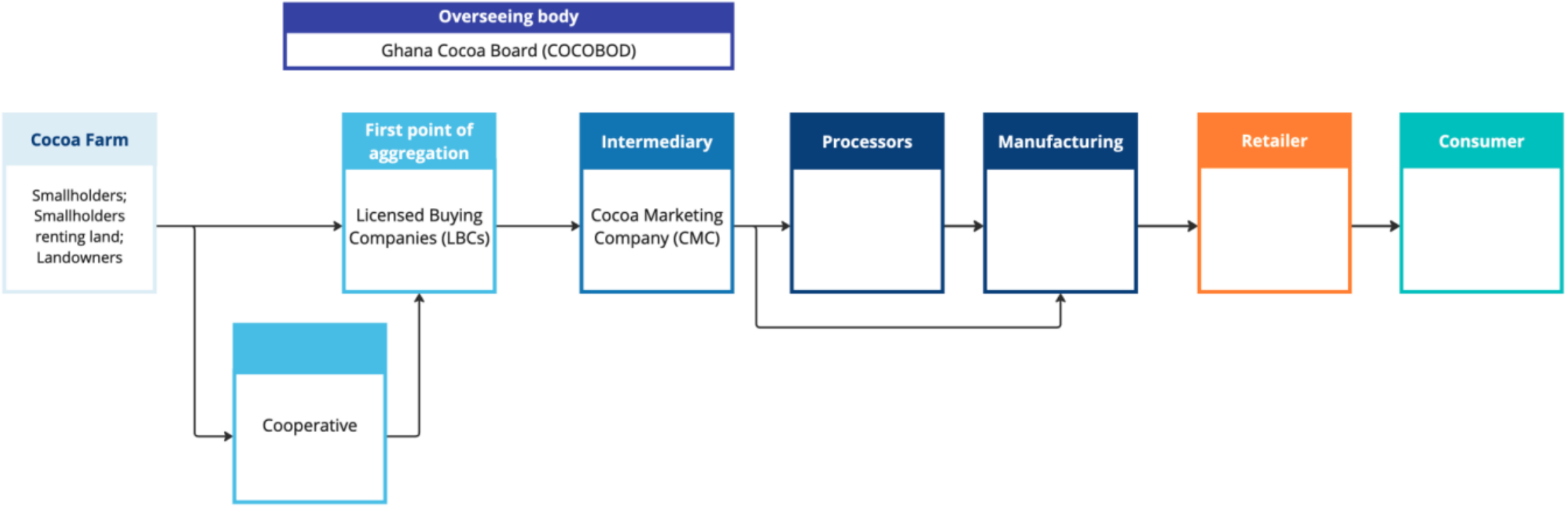
Illustrative scenario - Beef in the UK



Key areas of challenge:

- **Traceability:** to farm/sourcing region in the UK beef supply chain
- **Additionality:** extent to which WVCM projects need to be additional to SFI measures
- **Allocation:** of outcomes across multiple funders / co-products (eg tallow, pet food)
- **Farmer engagement and support:** knowledge building, contract length, audit alignment

Illustrative scenario - Cocoa in Ghana

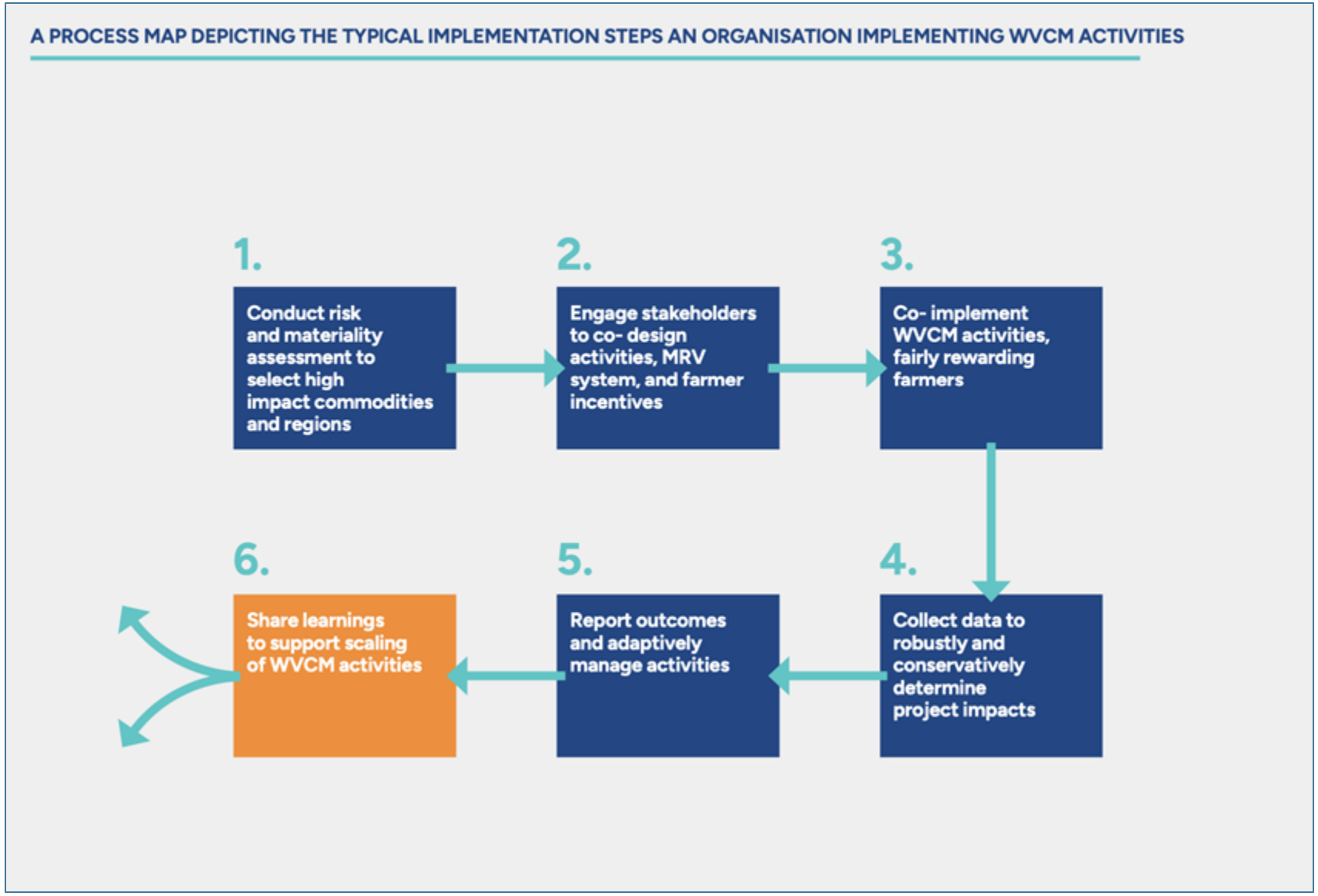


Key areas of challenge:

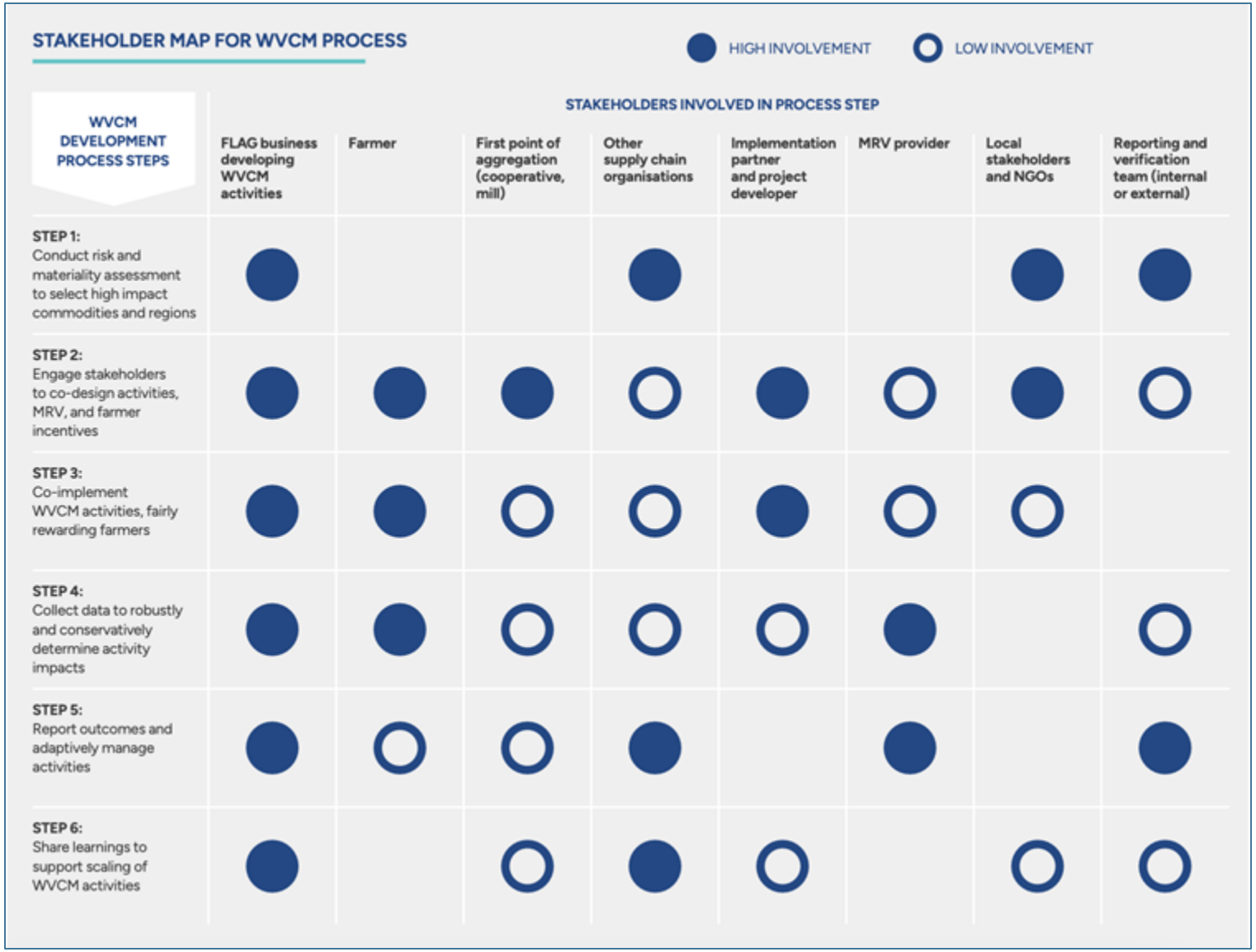
- **Traceability:** to smallholder/co-operative, and role of certification
- **Role of the Ghanaian government:** Ghana Cocoa Board (COCOBOD), plays a central role in regulating, overseeing, and managing the Ghanaian cocoa sector
- **Local context:** Ghana has an existing REDD+ strategy so projects need to consider Ghana Forestry Commission approach (also role of Nationally Determined Contributions)
- **Farmer engagement and support:** knowledge building, access to farmer groups

Final report graphics

WVCM implementation process map



Guide to stakeholder action

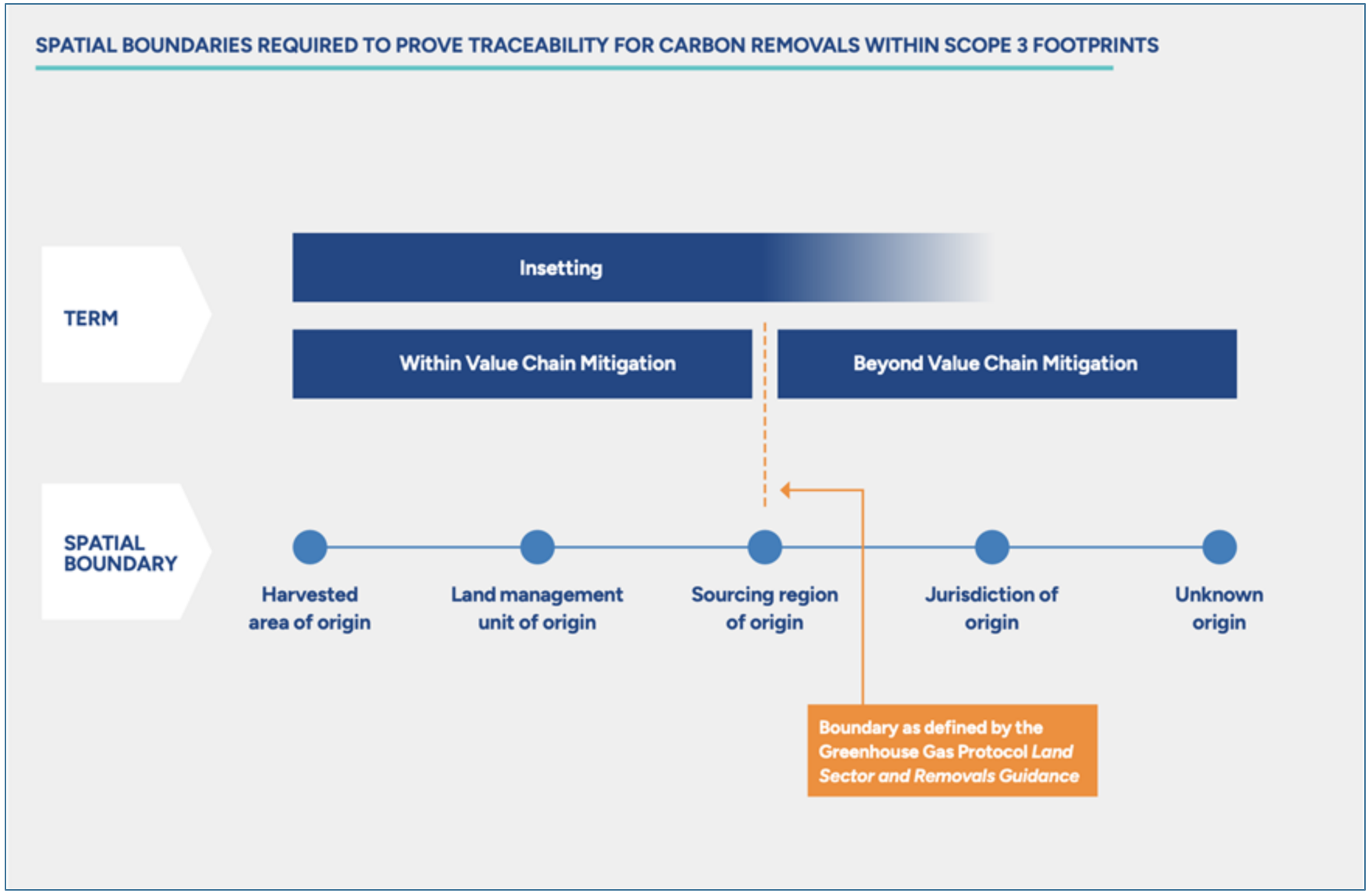


STAKEHOLDER MAP FOR WVCM PROCESS

● HIGH INVOLVEMENT ○ LOW INVOLVEMENT

WVCM DEVELOPMENT PROCESS STEPS	STAKEHOLDERS INVOLVED IN PROCESS STEP							
	FLAG business developing WVCM activities	Farmer	First point of aggregation (cooperative, mill)	Other supply chain organisations	Implementation partner and project developer	MRV provider	Local stakeholders and NGOs	Reporting and verification team (internal or external)
STEP 1: Conduct risk and materiality assessment to select high impact commodities and regions	●			●			●	●
STEP 2: Engage stakeholders to co-design activities, MRV, and farmer incentives	●	●	●	○	●	○	●	○
STEP 3: Co-implement WVCM activities, fairly rewarding farmers	●	●	○	○	●	○	○	
STEP 4: Collect data to robustly and conservatively determine activity impacts	●	●	○	○	○	●		○
STEP 5: Report outcomes and adaptively manage activities	●	○	○	●		●		●
STEP 6: Share learnings to support scaling of WVCM activities	●		○	●	○		○	○

Spatial boundaries for WVCM



Q&A

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Thank you!

For more information, questions or comments, please get in touch:
a.zalewska@le.ac.uk or emily.scott@3keel.com

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