

Soil Health Industry Platform (SHIP)
May Meeting Summary

Introduction

On 27th April 2023, the Sustainable Soils Alliance (SSA) hosted the 2nd **Soil Health Industry Platform (SHIP)** of the year. The meeting was attended by representatives of 10 of the 11 members of the Platform: Arla, Tesco, Sainsbury's, Kellogg's, Nomad Foods, Nestlé, Morrisons, G's Fresh, Waitrose, and Yeo Valley.

Guest organisations including 3Keel, WRAP, Defra's Food Data Transparency Partnership (FDTP), NFU, Finance Earth, Green Finance Institute, Agricarbon, McCain and academics from James Hutton Institute and University of Leeds (members of the UK Farm Soil Carbon Code (UKFSCC) Consortium) were also present.

The following is a summary, under Chatham House rules, of the discussions and decisions made during the meeting.

1. Soil Carbon

a) Policy Context

The meeting focused on soil carbon's place in scope 3 emissions removals. A draft report on the topic was circulated in advance outlining the policy context, the role of soil, and research and the actions that businesses can take now.

Presentations were given by 3Keel (slides available on request) and WRAP on the relevant international guidance for corporate land sector GHG accounting, reporting and target-setting, and by Defra's FDTP about policy initiatives that will bring consistency to Scope 3 reporting.

Details from these presentations can all be found in the final version of the Soil, Scope 3 and Supply Chain report which will be sent to SHIP members with the meeting notes.

Discussion

- At the heart of the issue is the question of whether scope 3 reporting will have to operate to the same principles as the voluntary carbon market. The two may not fully align but the governance, tracking and consistency of reporting emissions is needed to avoid double accounting.
- WRAP's emissions factor database (15,000 food products) serves as a foundation to show where gaps are and what quality of data is needed when transitioning to primary data for scope 3 reporting (which is what will be needed to demonstrate soil carbon removals).
 - The Retail Net Zero Collaborative Action Programme launched earlier in April. The most important aspect of it for soil is the adoption of one set of standards for measuring and reporting scope 3 GHG emissions - agreeing on protocols for collecting and processing data. Standards for primary data are required to replace secondary data and to prove that actions businesses are taking are driving scope 3 emissions reduction.

- Businesses are asking for more guidance, more practical case studies and more educational material to understand this scope 3 landscape. However this changing policy landscape should not stop businesses from acting now. Soil health interventions require knowledge dissemination, financing and support. This requires significant time commitments so it is important to act now.
- Defra's Food Data Transparency Partnership (FDTP) is working closely with WRAP and industry bodies to develop proposals aimed at streamlining and achieving consistency when it comes to corporate scope 3 reporting. These proposals will be consulted on by the end of the year.
 - The FDTP is also working at a product level and has committed to a mandatory methodology for eco labels.
 - A gov.co.uk webpage on the work being carried out by the FDTP will be launched shortly.
 - Whilst the FDTP is first focusing on carbon, they are aware of the work being done by the Global Farm Metric and will look at other environmental metrics in the future.
 - A separate team in Defra is looking at standardising farm calculator tools, as announced in the recent Green Finance Strategy, which is keeping the FDTP informed.

b) Industry Context

Participants also heard about work being undertaken by the NFU and Finance Earth around scope 3 emissions.

NFU

- There are overlaps between the industry perspective and the farmer perspective.
- The NFU has completed its work on environmental markets and has published [5 principles](#) for these markets to be successful for farming.
- This research found that baselining evidence is a major issue - this is a confusing landscape for farmers who do not know which tools to use as there are many available, each offering different results and interpretations.
- The NFU worked on the recent Green Finance Institute's report *Financing a Farming Transition*, and is also working with the BSI and the FDTP. Similar conversations are happening around how to treat removals and how to move beyond woodland and peatland sequestration. To make these areas more relevant for farming there is a need to look at soil.
- There is also the issue of permanence - particularly for soil. How do you keep carbon in the ground and align with current supply chain agreements which are short term? System change requires a long-term commitment from farmers.
 - Farmers are looking to build their case for a regenerative transition, which can't wait for market architecture to take shape. There is a need to start driving action on the ground with incentives and support for farmers.
- There is lots of interesting work happening in this space including: SBTi, GHG protocol, transition taskforce etc.
 - However, workshops on GHG accounting often do not include enough supply chain actors. It is important to ensure solutions (around nature outputs) are fit for agriculture which operates differently to other industries.

Finance Earth

- Finance Earth is working with the National Trust to look into a range of mechanisms (financial, technical assistance etc.) to support tenant farmers pursuing nature-friendly farming.
- They are starting with engaging farmers to understand their needs.

- In terms of scope 3 emissions, a farmer's emissions will be shared by many actors (retail, restaurants, land owners like the National Trust, buyers, traders).
 - One of the projects seeks to understand how to collaborate to support farmers and not confuse things further, by looking at what is already being done and the requirements and interests of different actors to see where more alignment is possible.
 - They are also exploring the potential to have an aggregator if that is what is needed to bring together interest across the supply chain.
- The work goes beyond carbon, also looking at water, biodiversity and social outcomes.
- Anyone interested in collaborating is invited to reach out to Finance Earth.

Next steps

- ***SSA to map different initiatives emerging around scope 3 reporting (policy, research, pilots etc.) to understand how they contribute to overall understanding and policy development.***
- ***SSA to invite NEIRF and the Defra teams working on standardising farm calculator tools to a future SHIP meeting.***
- ***SSA to talk to farm calculator tools to understand where they are in terms of incorporating soils into their measurements.***
- ***SSA to update and share report on soil's place in scope 3 reporting.***

c) What businesses can do

The second half of the meeting examined the steps businesses can take now to prepare for soil carbon removals to be adequately accounted for (pages 5-7 of the report). These include points on:

1. Building supply chain confidence
 - Businesses need to start engaging with farmers to address their confusion, demonstrate shared value, emphasise the importance of partnerships and help support farmers understanding the complexities of soil carbon (myth-busting in certain instances).
2. Understanding financial drivers (cost and market)
 - This includes understanding the cost of transitioning to regenerative farming and supporting farmers, ensuring robust claims are being made, the costs of the overheads beyond farming (data collection, consultants etc).
3. Consumer education
 - There is public scepticism around the inclusion of removals and carbon accounting, and low consumer understanding of soil's overall environmental importance. Businesses communicating about soil's place in scope 3 provides an opportunity to address these challenges simultaneously.
4. Internal engagement
 - Internal boards and buyers will need to see the ROI (Return of Investment) on any initiative. Whilst boards will increasingly understand the urgency of Net Zero/Scope 3, messaging should be accompanied by other economic arguments about why investment in soil is vital.

d) Discussion

Farmer certainty:

- The NFU's Farmer Confidence Survey demonstrates that whilst confidence fluctuates a lot, both short and mid-term confidence is at a very low level. This is due to public policy and price pressures from the supply chain.
- This is during a time when farmers are also being asked to transition to regenerative agriculture (a vague term). There's a lot of focus on how farmers can borrow to finance this transition.

- This puts pressure on the farmer, who may be taking on debt to invest in a system that the supply chain may not support in the long term due to short supply chain contracts.
- Whilst there is a need for improved communications on long term gains, work is also needed around mid term gains to ensure farmers don't just respond to short term market signals (which is what they'll do in times of uncertainty). There is a role for supply chain and government in this.
- Cooperative models like Arla help build this sort of confidence with certainty in agreements and incentives. The dairy sector is generally better at this – they engage with their milk pool.
- An example was shared of a business(es) that set up a program where they underwrote the regenerative transition for farmers by guaranteeing to compensate for any short-term losses in yield.
- Third party certification can be a driver of long-term certainty for farmers that retailers can use.
 - However when it comes to scope 3 and supply chain issues, agreement around a long term intervention that needs to happen on a farm needs to be separated from the commercial agreement (between buyer and seller) because the economics of the agreement are completely different.
 - This cannot be embedded in contracts for agricultural produce because these are less secure. The NFU can share some principles they have around this.

Impacts of a regenerative transition:

- The idea that farmers must take on debt and see a loss in profit when transitioning to regenerative agriculture was challenged.
 - In some cases this will involve a lower reliance on inputs with similar outputs and profits meaning some changes can be self financing. This importance of self-sufficiency and resilience should be communicated and sold to farmers better.
 - In others it may also be about challenging what is considered 'normal practice'. There have been pressures and incentives from the input industry to do things a certain way.
- However, in other cases this will require an operational upheaval, a learning journey and a shift in understanding farming. A lot of farmers still do not understand what regenerative farming is.
- There is a lack of evidence on the impact of a regenerative transition on productivity and cost available in the public domain. Examples shared were anecdotal.

Support and advice:

- What is needed are support packages to identify what sort of transition can happen such as identifying minimal risk changes. This can be supported and provided by businesses further up the supply chain. Farmers can be directed to experts to start a regenerative farming transition and contribute to scope 3 emission reporting.
- Farmers may also need to rely on external experts. Project developers are a key link in the chain for helping farmers to make a successful transition, aggregate their benefits to reduce transaction costs and potentially commercialise the results.
 - It could be worth creating a guide for the farming community to project developers working directly with them e.g. recommendations, services, capabilities and standards. A centralised approach may be helpful.
 - The Green Finance Institute is currently developing an environmental markets toolkit for farmers. This will guide them through each stage of engagement in these emerging markets, from identifying market opportunities, baselining their natural capital, determining appropriate land use change to selling credits. This would hopefully also help project developers who work with farmers. They are aiming to include considerations around insetting as well.

- Evidence is required when it comes to understanding if a farmer's soil or conditions are well suited to another system or regenerative transition - advice in this area is also needed.

Building the evidence base for regenerative agriculture

A proposal by the UK Farm Soil Carbon Code (UKFSCC) Consortium was presented to participants. The project aims to create evidence to underpin regenerative agriculture and emission removals. Currently, the only data available to support this is US specific and cannot be translated to the UK. This lack of evidence is leading to uncertainty - hindering a regenerative transition.

The funding proposal outlining the costs, actions and rationale of a regenerative farming baselining project will be sent to SHIP members with the meeting notes.

Discussion

Modelling and baselining:

- Almost all opportunities to reach Net Zero will require a level of modelling. Whilst there are a lot of tools available these are not comparable and do not currently meet IPCC guidelines (standard requirements) in terms of reporting soil carbon removals.
 - On the one hand there are simple farmer-facing modelling tools and on the other there are highly complex process-based models (used primarily in the voluntary carbon market (VCM)).
 - The latter give better results but are data hungry. They cannot operate commercially in the UK (there are trials around this in the US).
 - This is a missed opportunity at a UK level. Agriculture is changing, there is a risk we miss the opportunity to include soil carbon removals to achieve Net Zero agriculture targets if there isn't any reliable baseline data or data demonstrating measurable and achievable change in the UK agricultural system.
 - This proposal provides the opportunity to build an evidence base of what happens if you change the system to better inform modelling.
- Europe is working on baselining farmers by 2028 for Net Zero. Shouldn't the UK be doing the same?
- There are significant concerns when it comes to greenwashing and different MRV protocols not providing consistent data (for emissions reductions removals). Whilst this may not be a significant problem at farm level, it is not ok for business claims and meeting national commitments. Greenwashing will become a bigger issue for the agriculture industry to tackle if nothing is done.

Soil carbon testing and tier 3 data:

- Measuring changes in soil carbon is a large undertaking but it is not insurmountable if academia works with the supply chain and government.
- Soil carbon can now be sampled accurately and efficiently so this should no longer be a limiting factor.
- Agicarbon's new technology (industrialised robotics process replicating soil testing lab) enables affordable testing at the required level of rigour to comply with the GHG protocol (i.e. measuring to depth, dumas dry combustion for every sample and depth, full measure of bulk density, analysis for every sample to understand granularity and detect changes).
 - Data is harmonised across all farm types and geographies. It is estimated that 5,000-15,000 samples can be tested across different farming categories to get a robust view of the differences between these farm categories and changes over time as a regenerative system takes effect.
- Currently, these improvements in soil measurement are not feeding into carbon calculation tools. These tools can only cope with tier one inputs (global emissions factors). Academic

tools like Agricalc are having conversations around how to incorporate tier 3 data (direct measurements i.e. data from soil samples).

- However, projects in the VCM are using this direct data (tier 3) already as it is a requirement.
- There is a need to reconcile these different tools. Tier one and two calculators will need to change quite quickly to incorporate tier 3 data and increase their accuracy, whilst tier 3 measurement tools will need to simplify their interfaces. There is a need to have something in between these two types of calculating tools.
- At a Scope 3 level, companies are required to report on removals separately and the protocols specify the need for tier 3 data, this means larger companies will need to have this direct data to report on soil carbon removals.

Scope for the proposal:

- Whilst this proposal starts with straightforward measurements (soil carbon stock, nutrients, water etc.), there is potential to look at yield change, cost etc. This can happen at a later stage with the right group. This is a starting point to tackle the main knowledge gaps around baselining.
- Concerns were raised as to whether the project will be complex enough to give answers we need. Seeing as there is a lack of understanding around how regenerative practices interact with soil, drawing trends from fields with no baseline might not give any sort of conclusions being sought.
 - In response, it was explained that, while scaling up geographically will need more thinking, there has been work done on baselining regenerative pasture compared to normal pasture, and significant differences in soil carbon stocks can be observed.
 - Alternatively the geographical scope could also be limited.
- The project seeks guidance and collaboration around its design - it is not fixed.
- There have been attempts by the University of Sheffield to make an [index for regenerative agriculture](#) by creating a score for regenerative practices. This could be used to stratify the 'regenerative-ness' of different fields.

Next steps

- ***SSA will share the funding proposal with SHIP members. It proposes establishing a technical group of interested businesses to help refine the project parameters. Businesses who are interested in getting involved are invited to get in touch.***
- ***SSA will also share the proposal with Defra.***

2. Knowledge Exchange: An overview of relevant soil initiatives

This was not discussed at the meeting due to a lack of time, however, an overview of the relevant soil related policies and initiatives that have taken place since the start of the year was given. Members are invited to refer to the briefing note disseminated in advance of the meeting for further details on these developments.

3. Other Projects

This was also not discussed at the meeting, but a short update on each SHIP category has been provided below. The 2022 SHIP Report discussed at the February meeting, including the finalised SHIP commitment, six categories and priorities for 2023 can now be found online [here](#).

- ***Consistent Metrics:*** The SSA has been asked to facilitate at a meeting with businesses, NIAB and the Defra's Farming and Countryside Programme (previously referred to as the Future Farming Programme) to discuss consistency and alignment in soil health metrics and monitoring. The SSA will report back on relevant outcomes to SHIP members. A bid has been

re-submitted to Innovate UK (at the higher level £3-5m) – to digitise the AHDB soil health scorecard.

- *Risk Mitigation and Reduction:* The SSA shared the risk mapping work with levy boards and trade associations to understand how this can feed into some of their existing workstreams. The SSA is having conversation with the BRC about how to communicate this to sourcing teams within businesses and will be looking at how to integrate this work into their *Climate Action Roadmap*.

The Zero Carbon Forum is also keen to help develop and deliver the right messages around the importance of soil risks, the cost this will have on businesses, and what they can do about it. The SSA will also be feeding into UK Dairy's *Dairy Roadmap* in June which will have 5 year targets for farmers – focusing particularly around raising awareness of the Farming Rules for Water and soil measurement.

- *Communications:* Talks are underway to organise a [UK Soil Awareness Week](#) in the autumn to put soils on the UK agenda. A briefing on the topic was sent to SHIP members earlier in the month. Six Inches of Soil, the UK equivalent of Kiss the Ground looking at regenerative agriculture in the UK, is planning to have a theatrical screening in October. The SSA is working closely with the film's team to align promotional trailers with the awareness week. Businesses were reminded to put the SSA in touch with internal comms and PR teams.
- *Knowledge Exchange:* As discussed at the February meeting, the SSA is working with the University of Plymouth on developing research that can help evidence soil policy via the ELMS-Exchange project. There is a lack of a centrally collated knowledge base for the various social and environmental studies to feed into ELMs practices. Based on this, the project the SSA is co-developing will seek to map out this research, which varies from drivers of uptake to impact on drought tolerance.

The SSA will be looking to produce a resource that can inform future schemes and provide an evaluation tool for whether and how the SFI delivers for farmers, soil health, and the supply chain. Further details will be shared with members at a future SHIP meeting.

- *Financial Support:* A 2023 SHIP priority was for the SSA to carry out research into these different income streams (both public and private) and report back to SHIP members. This overlaps with this meeting's focus on soil carbon and scope 3 emissions.

Actions for SHIP Members & SSA

Actions for SSA

- Finalise and share Soil, Scope 3 and Supply Chain report (attached to this meeting summary).
- Finalise and share funding proposal on baselining UK regenerative agriculture (attached to this meeting summary) to SHIP businesses and other stakeholders.
- Follow-up with interested businesses and explore establishment a technical group of interested businesses to help refine the project scope and parameters.
- Map and compare different business-led regenerative projects (scope/metrics/timeframe/funding).
- Map different initiatives emerging around scope 3 reporting (policy, research, pilots etc.) to understand how they contribute to overall understanding.
- Contact NEIRF team to better understand where removals sit in existing projects and Defra team working on farm calculator tools. Invite both to a future SHIP meeting.
- Liaise with farm calculator tools to understand their plans for including removals in their calculations.
- Explore opportunities to work with business PR and comms teams.

Actions for members

- Review funding proposal on baselining UK regenerative agriculture and share with interested colleagues.
- Share with SSA details of regenerative projects/pilots (scope/metrics/timeframe/funding).
- Participate in technical group of interested businesses (where appropriate).
- Share finalised Soil Carbon, Scope 3 and Supply Chain report with interested colleagues.
- Introduce SSA to PR and comms teams to discuss opportunities resulting from UK Soils Awareness Week 2023.