SUSTAINABLE SOILS ALLIANCE

UK Farm Soil Carbon Code Stakeholder Workshop, 27 September 2022
Meeting Report

On September 27 2022, the UK Farm Soil Carbon Code Consortium hosted a stakeholder workshop to discuss its Draft report and recommendations on minimum requirements for high-integrity soil carbon markets in the UK *which had been distributed shortly beforehand.*

The following is a summary of the questions raised by participants during the meeting, and the answers provided by c=Consortium members. The meeting took place under Chatham House Rules.

Q. How can the ***historic review period*** *be verified? Farm records are inconsistent – especially on e.g. tillage and not guaranteed to be accurate, generating the potential for disputes and fraud. Remote sensing is not yet reliable enough for a historic look-back.*

Under existing codes, a record of management practices is required. We would welcome ideas regarding the kinds of evidence that might needed as part of the minimum requirements or those which should be left to the discretion of codes?

Q. Why is there a blanket ban on imported carbon/organic matter? Some stocks of compost waste originate from household/garden and food waste which would otherwise be considered 'lost' from the system'? Is there a difference between created carbon (by a healthy functioning soil) and added carbon from outside sources (e.g. sewage sludge that might contain micro-plastics).

- *(Suggestions from the chat): Biochar should be credited at the point of production and not its use in soil. its use should be discounted when calculating overall soil carbon stock changes.*
- *Additional Organic material must be certified/sampled for AHDB RB 209 full and Full Carbon content showing no PTE?*

We will look into this – there is a need for nuance regarding the different additions, especially with regards new organic additions (sewage sludge) and biochar.

Q. If the UK government suddenly mandates an increase in soil organic matter through the likes of the SFI and ELM, does this render all codes and thus the issuance of carbon offsets null and void?

Only where a government scheme is paying explicitly for soil carbon, and the government payment covers the full implementation costs, would any project fail the financial additionality test.

As with the peatland code (where payments don't cover all costs), it should be possible to blend public and private funds. Public money should not crowd out private funding, but be used to de-risk projects and leverage funding to achieve the maximum possible income. This is being considered by all 4 governments – including Scotland through the Ag bill.

Q. With the 5 year limit on "new" implementation, are best practice agroecological farms being excluded from this? (also:) *How do you ensure that farmers who already apply good practices (e.g. organic farmers) are not disadvantaged?*

This is a major problem with all ecosystem markets. You can't reward historic good practice, and in fact the main beneficiaries are often those who did not look after their land, who can take payments to restore it. There's no way around this for the markets, though public funding can potentially fill this gap (rewarding stored carbon), with the contribution of private finance potentially making it possible to free up funds for this purpose. 5 years is a typical figure if you look across international soil carbon markets.

Q. Its not clear how permanence would be achieved on a mixed farm?

When you baseline your project, you will take the cropping cycle into account. i.e you aren't looking at a single static point. You take into account the rotational cycle when quantifying your baseline, and therefore your credit.

It is also important to consider how you define your project area. If your project area is simply a field, this will be more of a challenge than if your project area includes several fields or several farms because you can then quantify within a project area - and a degree of movement around the project can be accounted for.

Q. Also when moving a field out of arable into pasture. How would the amount of carbon captured in the soil exceed the emissions generated through enteric fermentation?

Q. Do you propose the buffers held at a project level or a code level and you proposing the buffer so verified units or PIU?

We propose something similar to how this currently works in the peatland/woodland codes would be something similar. i.e. we don't propose that PRUs would be generated from farm soil carbon.

Q. Do the codes account for permanent crops, e.g. Orchards, or miscanthus?

So far we've been purely looking at arable cropping systems, so we haven't looked specifically at miscanthus or orchards.

We are not prescriptive on the different practices that can and can't be introduced. In this particular case, the agroforestry code (in development) would be more applicable. There should be no upper limit on permanence – these are minimum requirements which we're proposing as ten years, but there is no reason this shouldn't be much longer.

Q. When it comes to baseline construction, what happens when the rotation is longer than three years. What should be the minimum?

The baseline should reflect the rotational cycle with a minimum of three years.

Q. In the development of this document did you find that any of the existing farm soil carbon payments wouldn't stand up if these requirements were applied?

We haven't reviewed any existing commercial projects as part of this project, but existing projects have been a crucial part of the development of these minimum standards showing willingness for integrity in the marketplace.

Our intention is that existing codes/schemes will be able to get accredited to these minimum standards. Where they do not meet the requirements, they would need to revise their protocols, and resubmit for accreditation.

As it stands, there are not going to be any legal or regulatory requirements for the private companies that own/operate codes and trade carbon in this space to accredit to these minimum requirements.

The minimum requirements like these should send some strong market signals i.e. that that codes/standards/schemes that that meet them are 'high integrity' – in the expectation that in due course the majority of transactions and would go via these accredited schemes.

The parallel intention is to create a market incentive to raise standards to these standards – and where they don't, there would be some feedback and guidance, in which instance, code owners could resubmit revised protocols.

We appreciate that this might mean a divergence between legacy projects (with the original protocol) and new projects (with the upgraded protocol). Where projects are unable to adapt to new protocols, legacy projects would still be able to sell their carbon, assuming buyers remain happy to purchase it. Whether they are will also depend on guidelines/regulation around net zero claims, which are also being strengthened.

Overall we want to raise the integrity of these markets, get significantly more money into them, get more farmers transitioning to sustainable techniques and increase net carbon abatement.

Q. Other VCM schemes/codes/certifications don't require rotation of VVBs. Although it might add to overall integrity, it may be difficult to enforce if availability of VVBs is an issue. For example, Vera has a shortage. Sometimes the organisation itself might rotate their auditors (to prevent familiarity). This might require clarification.

A. We will look into this. A solution might be that we require either VVBs or auditors to be rotated.

Q. Is five years too long a period for sampling soil over a hectare? The lability of carbon is daily based on moisture activity, movement, OM levels, etc. We need a time frame where you can use cheap satellite information daily, alongside ground truthing twice a year. This approach has been taken up by the International Union of Social Sciences and was part of the mandate of the UN FAO global symposium on soil.

A. They aren't looking at the same thing. We are looking at full soil carbon stock assessment (at depth) rather than the full range of dynamic soil health indicators.

Monitoring change in soil carbon stock takes a much longer time - and this is a minimum requirement.

Q. *You suggest sampling at the beginning and end of each crediting period. If a scheme has a one year crediting period, that means annual sampling which is financially non-viable. Could you elaborate on the decision or the thought process behind that?*

If you are crediting you should be basing that unreliable data going in for each crediting period – in particular if you're looking at combining SOC stocks and GHGs.

We need to strike a balance in the minimum requirements between how often you measure, what is going to be cost effective and the different methods that you can use to reduce costs – including the potential to use model data in combination with real empirical sample data.

Q. What are your recommendations in terms of soil sampling design - specifically the baselining and soil sampling which can differ quite significantly. Benchmarking for certain soil types and farming systems would be helpful.

We aren't being specific – just saying it should meet these minimum requirements - because we are well aware that different environments will require different density of testing – and hence a slightly different strategy to meet required levels of accuracy and representativeness of change over time.

Q. If I am using measured data, do I need a model? Could I give credits at time of demonstrable capture rather than worrying about future credits?

It would be very difficult to calculate soil-derived GHG emissions to achieve net abatement without a model - although accurate measurements further down the line might be possible. The key question is how you project what your credits are going to be without a model.

When you are designing your project, to be eligible you need to be able to demonstrate that you have a practice that is going to lead to a net carbon abatement in this particular soil context.

Q. *Is there a prescription for how many samples are required per hectare*

No, because farms, soils, regions are heterogeneous. A fixed number of samples would be inappropriate.

Q. Is the soil sampling demanded statistically sound if the number of samples is over a specific number and the samples are then analysed as a composite sample?

Yes – if you can establish a reliable baseline, measure uncertainty accurately and detect change over time. Sampling design has to be able to give statistically significant, representative results.

Existing VCM requirements go into some detail on sampling design – the majority very similar, i.e. there is consistency between them. Our minimum requirements reflect these.

Q. Are you planning on providing guidelines to how to build a baseline only on soil carbon sampling to have clear and reliable results?

We will be developing guidelines to accompany the minimum requirements, but I think they're unlikely to provide the level of guidance you're looking for. There are many different approaches to this that are valid, with new innovations coming down the line, so we wouldn't want to be overly prescriptive on the specific methods, other than highlighting any which are clearly inappropriate and guidance around sampling and measurement standards to ensure representativeness and accuracy

Q. What about AHDB and the RB209? Can they be used to validate stock measurement? The holistic pattern of the science (including microbial activity) should be reflected in this work.

AHDB and the RB209 monitoring guidelines are for very different purposes than quantification of soil carbon stocks and GHG emission. These sampling approaches would not be appropriate for crediting approaches because they don't measure stock. They should be aligned, however (for the benefit of farmers), and where appropriate 'topped up' for crediting purposes.

Q. Caution is needed for landowner/tenant situations - carbon agreements should not and do not supersede existing agreements. A tenant entering into an agreement longer than their tenancy wears the risk of any reversals once they no longer hold management of the land used to generate the credits.

A. Most codes/standards do not get involved in contracts (or even offer model contracts for project developers and intermediaries). As such, we wouldn't expect codes to get involved in this as part of

our proposed minimum standards. Note that Kana are developing standard contracts that could work across multiple codes

Q. What is it about international practise and market design previously that prevents us taking a different approach to early adopters in the UK

When this was introduced into the UNFCC negotiations it was controversial and remains so. An example is a project in the Congo basin to stop timber harvesting on one of the world's largest peat bogs, where a market has been created from the principle of: 'unless you pay us money to do this then we'll dig it up' – which for some is morally indefensible.

Q. How will the minimum standards align with policy development?

The MS don't refer to the details of these different schemes because they are evolving/moving as fast as the marketplace, and so need to be adaptable for whatever policy comes.

A good example is the Scottish Government's soil health audit – which included methodologies that were adaptable so as to be compatible with people who wanted to look at so carbon projects further down the line.

It is important that we reduce confusion for farmers – and the need to measure things for different purposes.

Q. If in a voluntary market one can buy a cheap credit, why would you want to pay £60.00 for a soil credit?

A. On some international soil carbon markets, you can get a similar price to what we're currently seeing in the woodland and peatland codes- typically £15-20, and sometimes up to £30 for pending issuance (not verified) units. One of the reasons for this is the constrained nature of those two markets (UK companies only or the UK arms of international companies only).

A decision needs to be made whether these codes are aligned with the UK Land Carbon Registry or another registry that allows overseas investment - enacting the relevant corresponding adjustments (so that we don't double count). These would then be taken off our own UK commitments set under the under the Paris Agreement – this might unlock further investment.

You could argue that it would increase demand or you could argue that that actually means we're now competing with international credits – leading to a race to the bottom.

Based on our feedback with the investment community, one of the key drivers of price is supply and demand. What is currently supressing demand - which is depressing prices in part is a lack of market confidence.

If we can get this right and send the right signals to the market that these are rigorous high integrity markers, that demand will be unlocked, and with it the payment for the additional rigour.

Q. Are their particular models you believe are accurate and local enough?

A. There are models available that are acceptable for use in the VCM. we have not specified which models as we are well aware that this is an evolving area where there needs to be the opportunity for new / improved models to come into use. The key is to demonstrate that any model is reliable with known uncertainty