

WHAT ROLE DO EMERGING BUSINESS MODELS PLAY IN CREATING A TRULY RESILIENT, REGENERATIVE AND JUST COTTON SUPPLY CHAIN?

The Cotton 2040 initiative has tested the prospects that ecosystems services marketplaces may offer in support of these much-needed outcomes.

Cotton actors know the industry needs to move from a place of ecological decline and deep inequity across the value chain, and move towards a socially just and ecologically replenishing future. Ecosystem services markets, a business model newly-designed to deliver value for better agronomic and business behaviours, pose real opportunity for change for all food and fibre industries, but they're not (yet) the panacea.

Read our insights into our regenerative cotton pilot, in partnership with ESMC and USCTP →

THE CONTEXT

It is now an imperative to extend the necessary means and systems to support the US farming community in transitioning their practices to regenerative agriculture. Yet, there is a mismatch between farmer realities, and flows of capital and risk coverage.

What we've been hearing from you is that:



For farmers, investment needs to accommodate different timelines and recognise the inherent risks in changing their practices from conventional growing, and be accessible and valuable to a range of farmers.



For brands, the cost of supporting the transition to regenerative might be too significant or complex to cover or understand on their own; it may feel out of scope for the market that they supply to; or they find it difficult to engage interested growers.



For businesses or investors, information on risks frameworks and returns is lacking or hard to unearth.

There's a lot of "buzz" around ecosystems services markets.

We also know there is a huge opportunity to attract mainstream private and public finance, but we need to make it work for farmers. To do that, we need to develop financial mechanisms that are collaborative and effective, with greater information and access flows that enable blended finance solutions.

This is why we developed a pilot on ecosystem services market: to test an emerging alternative business model that rewards sustainable and regenerative practices.

We wanted to stress-test these platforms to gather insights on what functions this one tool, of many, enables regenerative and socially just agricultural outcomes, can be scaled as equitable and long term sustainability solution, or not.



WHAT WE'RE DOING, AND WHY COTTON?

Forum has partnered with the Ecosystems Services Market Consortium (ESMC), a US-based non-profit organisation. ESMC's market program is unique in the US as they offer scope 3 carbon credits, which are credits generated by reducing greenhouse gas emissions in an organisation's supply or value chain. Scope 3 emissions are indirect emissions that occur outside of an organisation's control.

We have established technical agronomic and network advice for participating cotton growers through collaboration with cotton experts at the US Cotton Trust Protocol (USCTP).

We are actively engaged with over 100 organisations in this project, aiming to align and complement existing work within the ecosystem services market initiatives in the US and globally. We are also given insights, reflections, and support by the Textile Exchange.

We chose to focus on cotton production because farmers grow crops for both food and fibre sectors, and we want to contribute to cross-industry dialogue and learning.

By gaining insights from multiple industries, we aim to learn from each other and collectively promote regenerative agriculture.





GOING BEYOND OFFSETTING: THE NEED FOR INSETTING IN CLIMATE ADAPTATION

Insetting and offsetting are two complementary approaches to mitigate environmental and social impacts. While offsetting plays a crucial role in capturing carbon and supporting climate mitigation efforts, it falls short in addressing the urgent need for climate adaptation, which includes significant improvements in biodiversity indicators and changes to water usage.

For the food and fiber industry globally, and in the US, insetting can instead focus on reducing and removing our footprints across entire supply chain, this can include both up and downstream activities such as processing, distribution, end-of-life and investments. This collective action across value chains is absolutely essential to meet our climate adaptation needs.

Here at Forum for the Future, we recognise that impact and change cannot be cultivated, assessed, and valued in siloes, which is why we have aligned with the a Scope 3-focused carbon and ecosystem services market platform in the US to support our learning initiative.

Our pilot aims to finance the transition to a socially-just and ecological-regenerative future. If you're interested in learning more about insetting initiatives, new market places for such initiatives, or read about how our pilot promotes and falls short of this vision, this infographic is for you.



THE PILOT

Our on-the-farm, farmer-facing pilot collaborates with stakeholders across the cotton value chain to test and explore how financial mechanisms, including ecosystem services markets can offer cotton farmers the means in which to transition to regenerative fibre production.

The model pays farmers for measurable improvements in environmental outcomes, developed specifically for cotton by our consortia, and include protocols focused on biodiversity, soil health and water conservation, as well as generating credits through successfully sequestering carbon.



THE PROCESS

Our process is outlined below. This is an example of the flow of ecosystems services models, for insetting (which includes scope three) and generating offsetting carbon credits.



We gathered key insights at various stages of this process and are sharing them here.



INSIGHTS: ESTABLISHING THE PROTOCOLS FOR REGEN COTTON GROWING

Based on our experience, these insights can help guide the establishment of which protocols are best suited in order to drive regenerative cotton growing practices - and outcomes - in the US, and beyond.

Defining and measuring "regenerative" outcomes is complex given the variability of growing conditions and markets, especially in a nascent industry where buyer pathways and markets are not yet consistent. So too are interpretations of "regenerative". Improving biodiversity, reducing and removal GHG, reducing water use, improving soil health, balancing social inequities should be central to the dialogue, regardless.

Protocols allowed and adopted by farmers, and supported by actors within the industry, must be place-based. This acknowledges localised conditions, agronomic realities, cultural contexts, and geographies to best dictate which protocols are best for that farmer.

Collaboration across food and fibre industries and geographies is crucial for mainstreaming and benchmarking regenerative growing practices, as there are ongoing complexities and divergence in opinions, understanding, and metrics.

Farmers should be key decision makers for which practice changes they are to adopt, rather than ecosystems services market providers or credit buyers. This establishing a sense of possibility and agency for production-end actors.



INSIGHTS: WHEN ENROLLING INTO ECOSYSTEMS SERVICES MARKETS

At the producer enrollment stage, these insights can help guide the establishment of protocols in sustainable and regenerative cotton growing practices in the US and beyond.

Regenerative initiatives are generating a lot of interest among farmers, but there are significant barriers for producers when accessing, evaluating the information associated with these programs, and how they differ or align.

Confusion exists among farmers regarding the eligibility requirements for regenerative agriculture initiatives, causing some to disengage or mistakes to occur. Clear, streamlined information would help, so too is improved communications between tier 1 and 3 (buyers and producers).

Early adopters of regenerative agriculture practices are not being rewarded or compensated for previously adopting regenerative-type agronomic practices, shutting them out of participating in these markets. This has created tension around how "additionality" is assessed, and how value is attributed.

The adoption of regenerative agriculture practices presents greater risk for farmers from historically underserved communities or ethnicities, who may have limited access to acreages that can tolerate reduced or failed crops, potentially affecting their financial resilience.



INSIGHTS: COTTON RETAILERS/BRANDS ENGAGING WITH ECOSYSTEMS SERVICES MARKETS

These insights can help guide the establishment of the value of these protocols and agronomic practices, and to secure that the process and ambition are aligned between producers alongside the buyers of the crop and credits.

Some accreditation programs for regenerative agriculture are not aligned with the preferred verification bodies for the cotton retailer, creating difficulties for brands to procure through certain ecosystems programs. Discuss these up front.

Food and fiber industries can have differing expectations and priorities for producers adopting new regenerative practices on the ground, creating a friction for producers.

The fibre industry places particular importance on traceability, verification processes, and accreditation/endorsement of sustainability accreditors, and may require specific crop information such as grade, staple, and strength. This level of granularity needs to be accounted for during data collection and discussed with producers well before fibre crops are sown. It may also be that brands are best to support farmer with costs and risks attributed to changes in certain fibre cultivators.

For the producer: the agronomic cycle does not reflect the reporting cycles for many retailer businesses who wish to report on their support, changes in procurement and purchase of credits within the period in which they're encountered. Additionally, the delay in the payments for credits to the producers take considerable time, creating uncertainty for whether farmers will indeed be paid for verified outcomes from the previous growing period.



A TOPLINE VIEW ON SHARED PERSPECTIVES

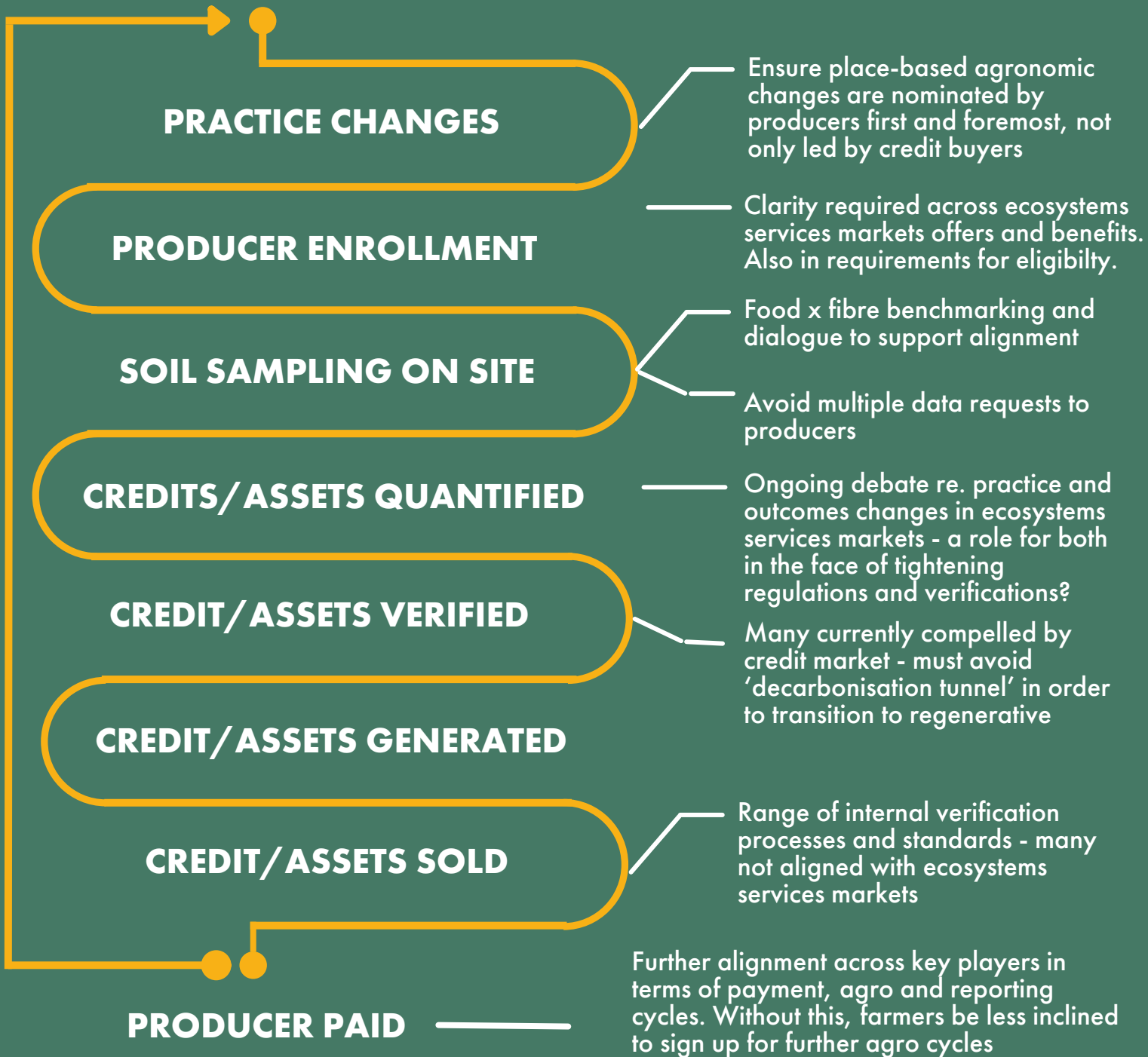
Here are some joint reflections and insights from the implementing consortia (Forum, ESMC and USCTP):

- The food and fibre industries appear to be somewhat siloed, creating dissonance from a common language and clear pathway for crop producers.
- There is ongoing complexity and divergence in opinions, understanding, and metrics related to defining "regenerative" growing practices. In some ways this needs to be streamlined to assure the value of ecosystems markets and credits, however place-based decision making by farmers remains essential.
- Farmers, and other key stakeholders, are readily awaiting what "regenerative" water quality and use protocols will look like. As with the ongoing development of biodiversity indicators in light of COP15/US's Inflation Reduction Act commitments.
- Cross value chain and industry collaborations is a necessity in order to better socialise the vast variabilities within growing conditions and markets, as well as to better define and measure "regenerative" outcomes, buyer pathways and markets.



LOOKING AHEAD: ACTORS' NEEDS

Reflections on where such financing mechanisms can further develop their engagement, buy-in across this model and, ultimately, enhance impact and value for people and planet.



KEY BELIEF: INCREASED DIALOGUE DRIVES SHARED INSIGHTS, VISIBILITY, AND EVENTUAL COLLECTIVE ACTION



LOOKING AHEAD: QUESTIONS TO BE ASKING OURSELVES AS ECOSYSTEMS SERVICES MARKET PROVIDERS

The below offer some suggestions for questions actors across food and fibre industries can themselves in order to best ensure producers are enabled, and regenerative agricultural practices are adopted.

PRACTICE CHANGES

— Q: Producers are overladen with often conflicting visions for change. How can we bring food and fibre industries together?

PRODUCER ENROLLMENT

— Q: How do we reach the farmers who hold disproportionate risks in transitioning to regenerative agriculture?

— Q: Are there routes to drive regen behaviours that do not commoditise this one precious Earth? How can/do we offer value outside of capital value?

— Q: How do we avoid rewarding delayed positive behaviour? Farmers who have moved past intensive farming are exempt from reward and carry no risk.

— Q: What's the role of insurances and policymakers? Producers hold different levels of risk, should they all be hit with the same policy carrots and sticks?

— Q: Producers: what are the critical aspects of learning that are demonstrable across burgeoning ecosystems services markets in mature markets vs small-holder contexts? E.g. Smallholder farmers in the US, or those in India.

— Q: As ever - Disproportionate transitional risk is largely carried at tier 3/production end. How do we acknowledge this and balance this out, as an industry so reliant on those laden with risk?



IN CONCLUSION

We have identified four key guiding principles for budding ecosystems service market purchasers. These are listed below.

Ensure:

There is ongoing dialogue and alignment across supply chains.

Identify:

Non-negotiable standards or verification requirements.

Discuss:

Internal procurement and sustainability policies or plans are aligned.

Ensure:

That scope three emissions and mutually-beneficial finance and contracting terms are discussed and fair.

WHAT NEXT?

If you'd like to learn more about our cotton pilot insights, or financing the transition to regenerative food and fibre value chains, please contact [Hannah Cunneen](#).