BCarbon Stakeholder Meeting

December 7th, 2023

Agenda

- Quick updates
- Soil Carbon Project update – Steve Cann, Future Food Solutions
- Carbon Credits in Practice – Brooke Harris, KPMG
- BCarbon "Year in Review"
- Goalsetting for 2024
- Closing remarks + discussion

Looking ahead to 2024: quick updates

- ***Methane webinar on January 25th from 1-3 CT***
- Starting a new subcommittee on insurance in carbon markets, chaired by Bill Ward
- Meetings for Q1 are on the 2nd Thursday of the month

All meetings via Zoom. Please email Sarah.Swackhamer@BCarbon.org to be added to any invitation list.

Beam SUNTORY

Climate Smart Corn

De-carbonizing corn feedstocks grown specifically for Jim Beam, the World's finest Kentucky Straight Bourbon Whiskey

Project Launch, World Soils Day 2023

Steve Cann, Director, Future Food Solutions
Neil Douglas Fuller, Associate Consultant

Future Food Solutions

Beam SUNTORY

Environmental Vision

Act now to limit Global Warming to one point five degrees

Ambition for entire value chain
Net Zero by 2050

Reduce direct operating emissions
50% by 2030

Reduce value chain emissions by
30% by 2030

Significant investment in Decarbonization Initiatives

Decarbonizing feedstocks

Science-Based Targets initiative
(SBTi FLAG Net Zero pathway to 1.5 degrees)

Action plan to reduce carbon footprint by 50% by 2030 and achieve Net Zero by 2050.

SBTi Carbon Removals Strategy

SBTi Carbon Reduction Strategy

Farm — GWP (100%)

Feedstock

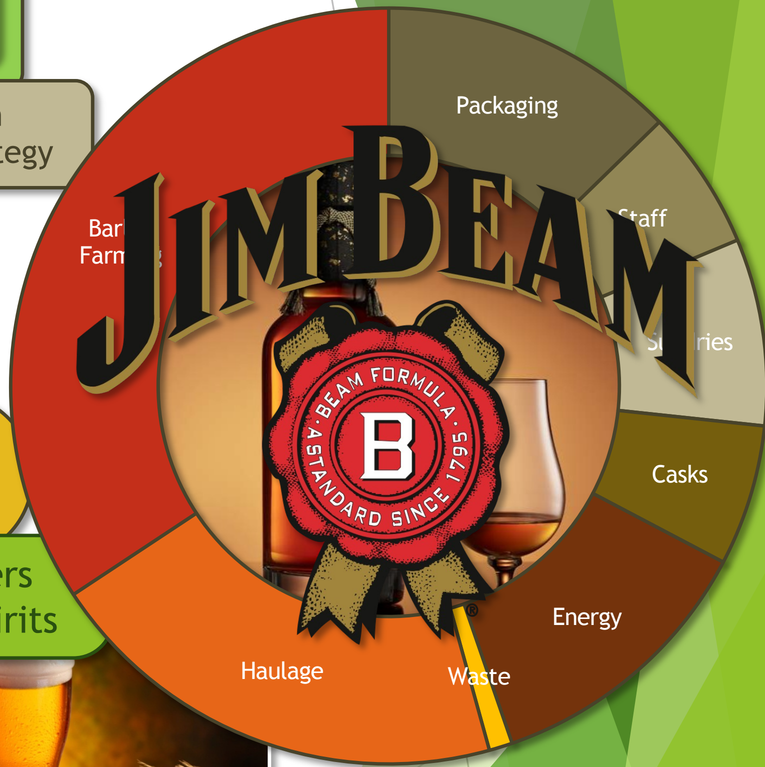
Merchant (transport, storage) — GWP (60%)

Maltster (pale, roast & flake)

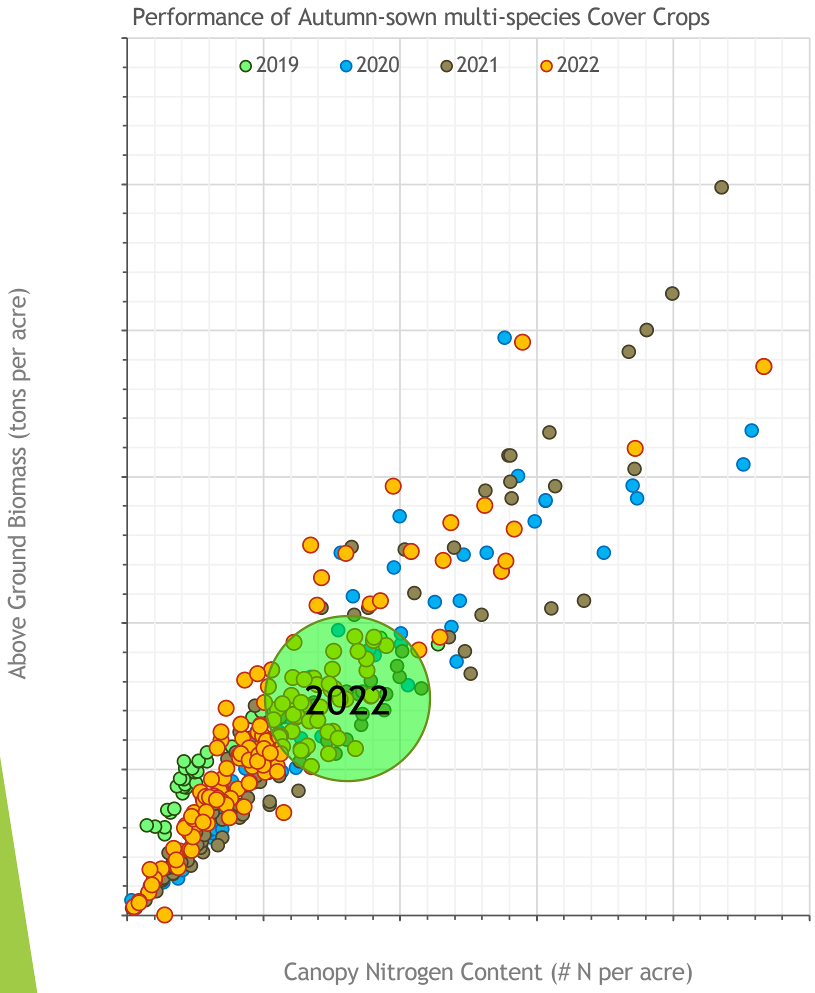
Brewing & Distilling — GWP (30%)

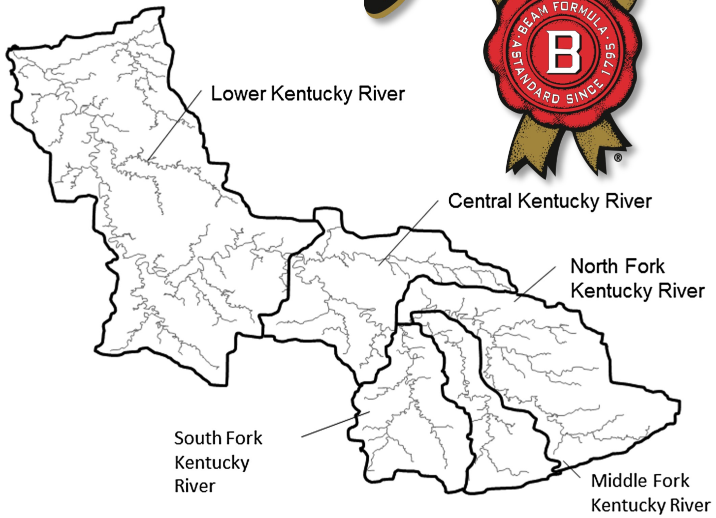
Beers & Spirits

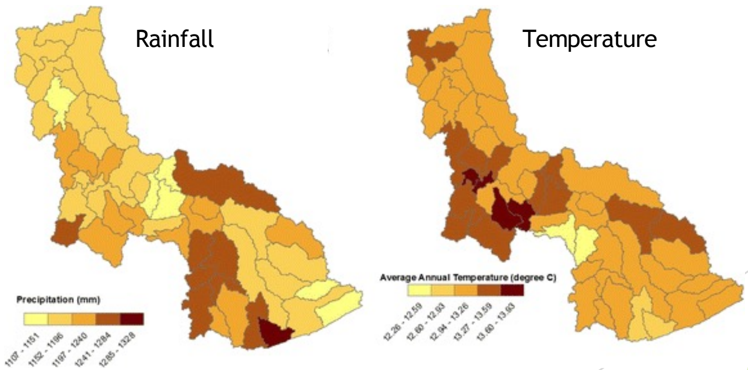
Beam SUNTORY



Watershed collaboration



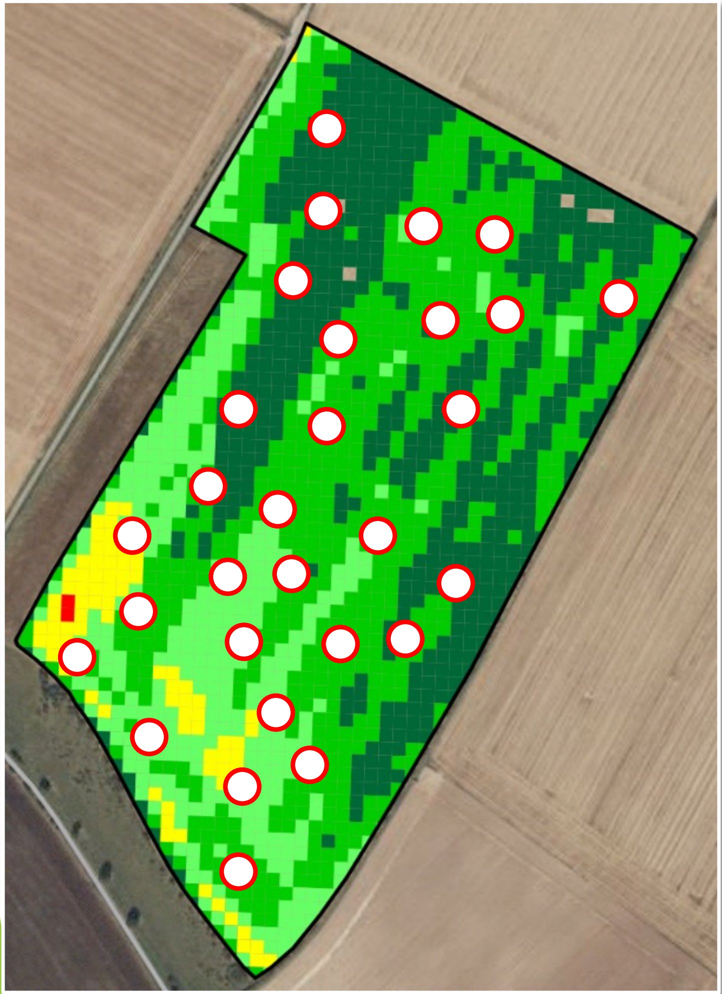




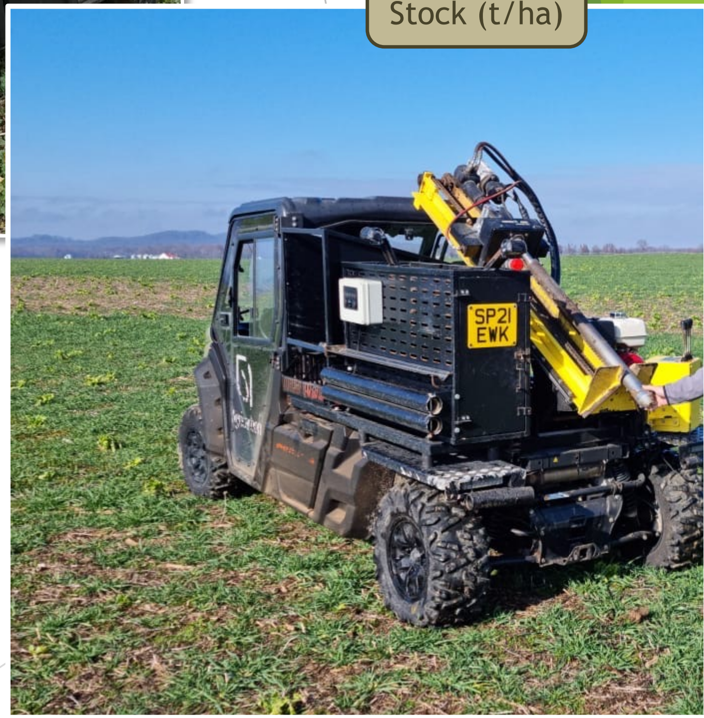
Stacked Benefits

- Carbon capture (drawdown)
- Biodiversity & eco-system integrity
- Farm performance & food quality
- Food security & sustainability
- Soil health & resilience
- Pesticide residues & phosphates
- Soil erosion & siltation
- Flood risk & water holding
- Water quality (nitrates)

Measuring success



Agricarbon



Geo-Referenced Soil Core Extraction

0-6 inch, 6-12 inch, 12-24 inch, 24+

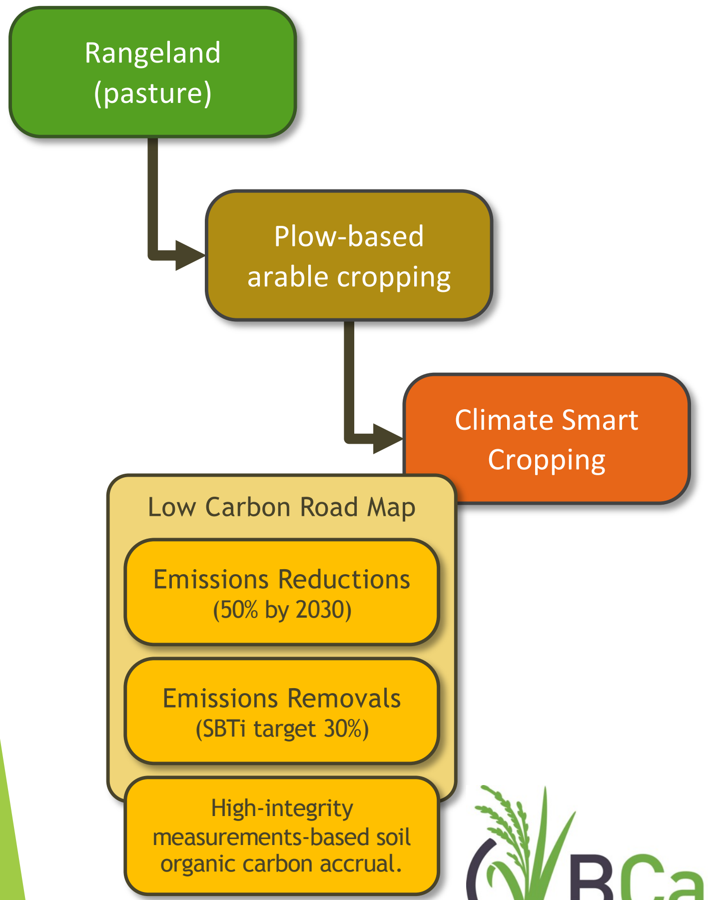
Soil Bulk Density

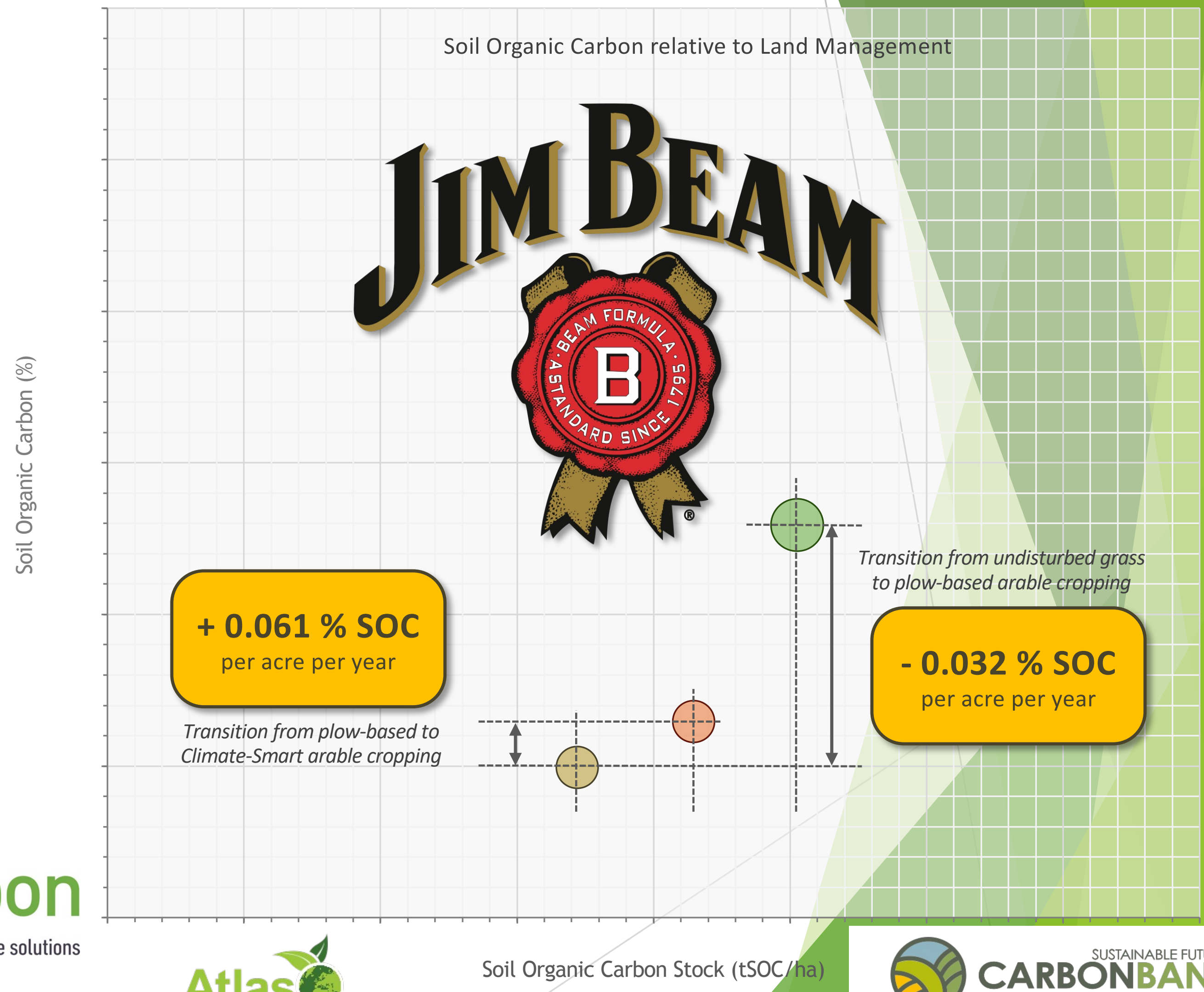
Organic Carbon (%)

Carbon Stock (t/ha)

Atlas
SPECIALIST BIO-SYSTEMS SERVICES

Measuring success





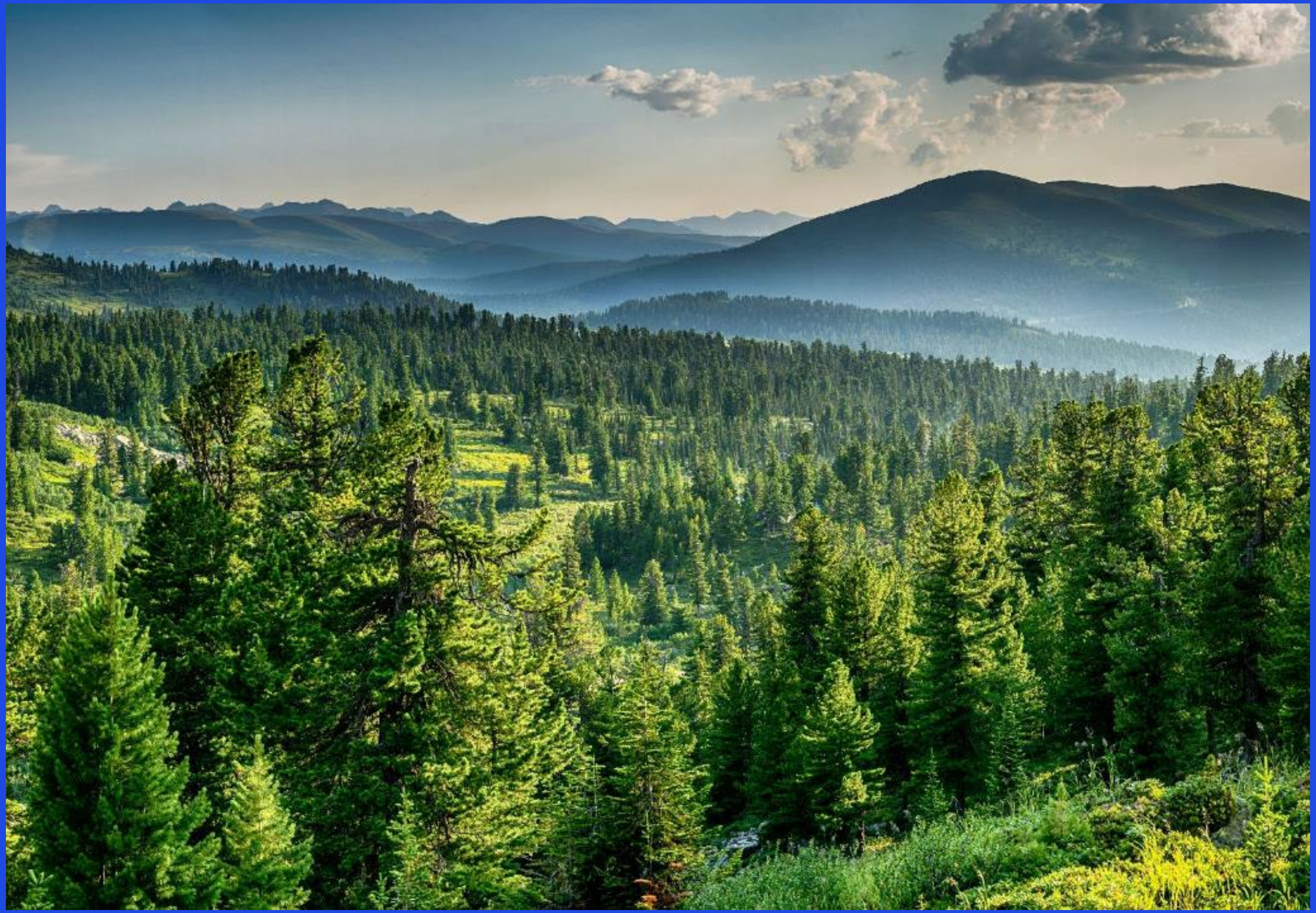
BCarbon
Working lands for climate solutions

Atlas
SPECIALIST BIO-SYSTEMS SERVICES

SUSTAINABLE FUTURES CARBONBANK

World Soil Day

Carbon Credits in Practice



ESG Advisory

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December 7, 2023

BCarbon Stakeholder Meeting

Agenda

01

What are carbon credits?

Carbon credits: the basics

Carbon credit

What?

A tradable unit representing one metric ton of carbon dioxide (CO_2), or an equivalent amount of another greenhouse gas (GHG), reduced or removed from the Earth's atmosphere.

Types

There are two types of carbon credits:

1. Reductions
2. Removals

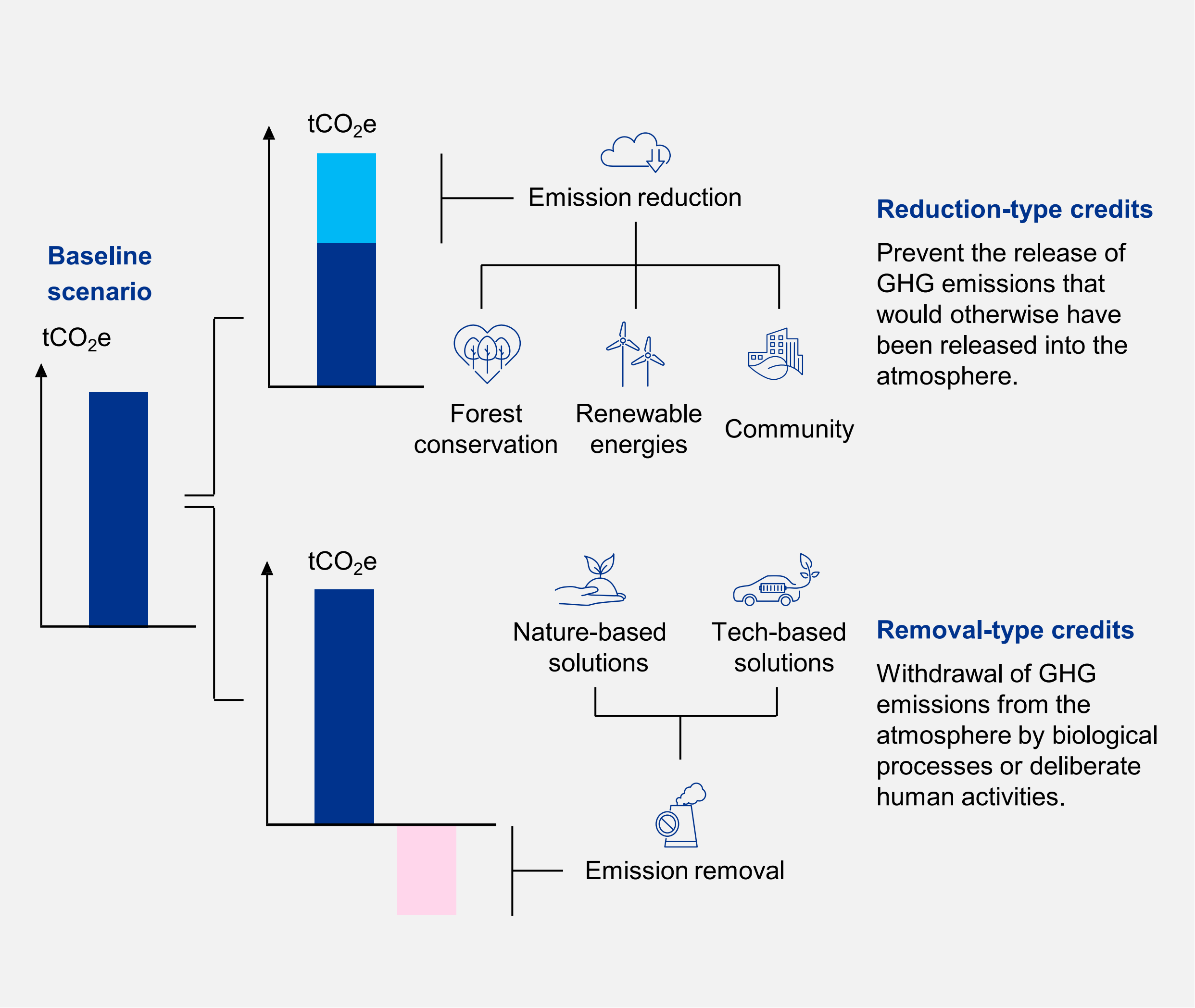
Potential uses

Compensation (or offsetting)

Action taken outside of the buyer's value chain that is counted towards its emissions reductions target

'Mitigation contribution'

To assist developing countries to achieve their mitigation targets or broader Sustainable Development Goals (SDGs) (non-compensatory)

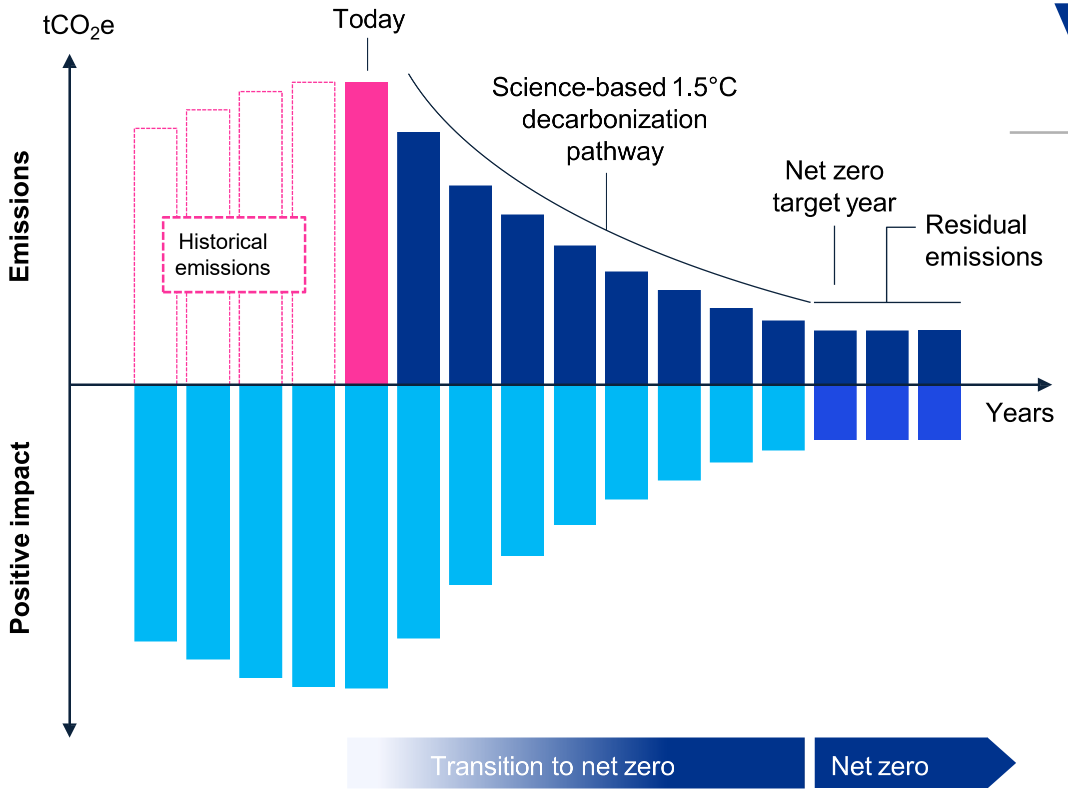


02

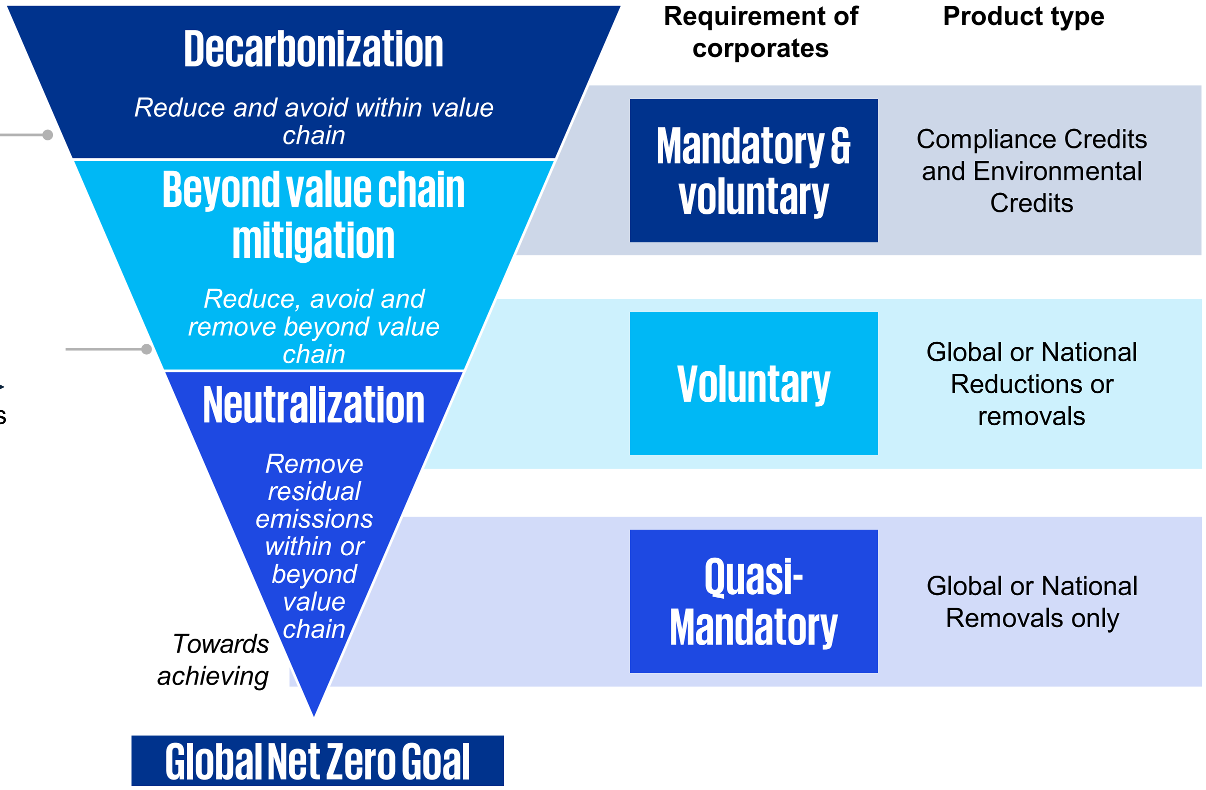
Why are companies driven to purchase carbon credits?

Net Zero goals are driving demand for carbon credits

Nearly **5600 companies have Science-Based Targets or Net Zero Commitments**, and **88% of global emissions are now covered by a Net Zero target** – spurring corporate demand for environmental product-backed decarbonization as well as voluntary and quasi-mandatory carbon credits. There is broad consensus that use of carbon credits should complement decarbonization efforts and be reserved to offset residual emissions or contribute to beyond value chain mitigation.



The transition to net zero will happen gradually- as companies reduce emissions aligned to SBT decarbonization pathways.



There are varying requirements and product types associated with key net zero actions.

Source: KPMG interpretation of [SBTI Net Zero Standard]

Organizations buy carbon credits for many purposes

Offset own emissions

Offset own emissions that are infeasible to abate to achieve Net Zero goals

ESG strategy Alignment

Investing in high-quality projects through carbon credit purchases to enhance full ESG Strategy

Beyond value chain mitigation

Buy carbon credits to address BVCM, contributing to global net zero and nature-positive actions

Customer service offering

Offer carbon credits to customers who seek to offset their own emissions

Trading strategy

Income generated through transactions of credits can be redistributed internally

03

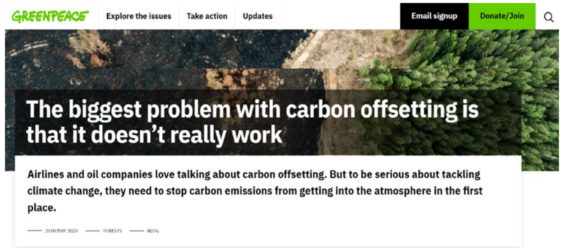
How do carbon credits impact businesses?

The voluntary carbon market in practice

The carbon market space is rife with controversy…

“

Carbon markets are a scam



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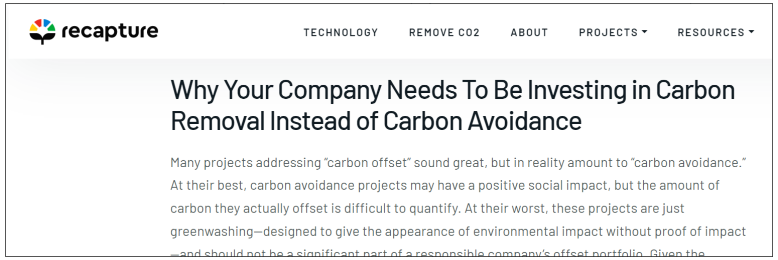
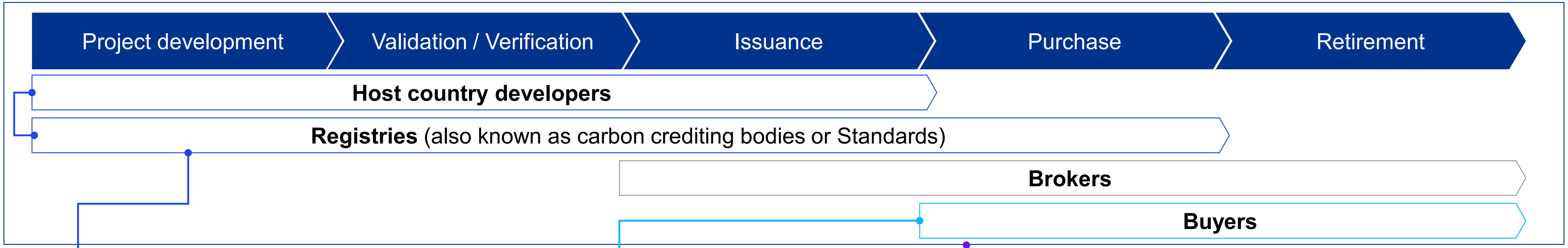
Nature-based carbon credits / removals do not represent genuine carbon reductions



… and the Voluntary Carbon Market (VCM) has pain points across the lifecycle of a carbon credit which attract criticism.

Lifecycle of a carbon credit



MRV

Project-specific concerns particularly around Measurement, Verification and Reporting of credits

- Lack of standardized definitions of high-quality credits
- Issues around permanence, additionality, and leakage associated with some carbon crediting projects as well as baseline ‘inflation’

Claims

Lack of credibility around voluntary climate-related claims made by corporates

- Misleading and non-authentic corporate claims can put the achievement of the temperature goals of the Paris Agreement at risk
- Some argue that offsetting offers a ‘cheap’ license for companies to continue polluting and delay their own GHG reductions

Governance

Lack of regulatory oversight

- Ineffective mechanisms to safeguard the market’s integrity
- There is a need for improved governance over the issuance, verification, and trade of carbon credits

But there is significant potential for positive impact through VCMs

$6tn

needed by 2030 to finance not even half of **developing countries' climate action goals** as listed in their NDCs.[1]

Financial flows towards the climate action goals of all countries globally are

3-6x

lower than levels needed by 2030 according to the IPCC.[2]

Sources: 1. UNFCCC Report; 2. IPCC Report

VCMs offer a tool for channelling finance to emissions abatement projects that currently lack support.

01 Provide a mechanism for corporates to reduce or remove emissions beyond their value chains

02 Channel finance to the Global South, removals, forest conservation, and implementation of UN Sustainable Development Goals (SDGs)

03 Facilitate knowledge generation, technology transfer, and access to finance in underfunded regions

04 Bridging move towards a global compliance market in jurisdictions where compliance markets are nascent

In the absence of universal standards, there are a number of initiatives seeking to improve the integrity and transparency of the market

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

- **No net-zero claims until long-term targets are met:** A company is only considered to have reached net-zero when it has achieved its long-term science-based target

- Most companies are required to have long-term targets with emission reductions of at least 90-95% by 2050. At that point, a company must use **carbon removals** to neutralize any limited emissions that cannot yet be eliminated.

- The **VCMI Claims Code of Practice** is a rulebook for companies on **credible use of high-quality carbon credits** on the path to net zero.

VCMI Voluntary Carbon Markets Integrity Initiative

- VCMI proposes that **a high integrity "carbon / climate neutral" achievement claim should be made alongside a net zero commitment** that is validated by the SBTi or an equivalent scheme

Standards & Initiatives

UNIVERSITY OF OXFORD

- Focus on **cutting emissions first**, and only then using high quality offsets
- Shift to **carbon removal** offsetting & **long-lived storage**

iC THE INTEGRITY COUNCIL FOR THE VOLUNTARY CARBON MARKET

- **The ICVCM Core Carbon Principles (CCPs)** will set new threshold standards for high-quality carbon credits.
- The CCPs **aim to build trust, unlock additional investment** and help deliver real climate impact at the speed and scale needed to transition to 1.5°C.

Slide Takeaway: Entities should monitor these initiatives to ensure their carbon credit strategy is durable over the long term.

Emerging themes in VCMs

Key headlines

01 The next 12-18 months will be definitive for the state of VCMs

This is due to a number of factors, including, continued issues around ensuring high-integrity credits and high-integrity claims, intense scrutiny on offsetting and carbon markets, and the stance taken by national governments to restrict the sale of carbon credits on international carbon markets which may have implications on the available supply of credits in VCMs.

02 Many new entrants are engaging with VCMs

The market is crowded with participants who are supporting the trade of credits between buyers and project developers – more conventionally, brokers, but marketplaces with API services as well as exchanges have emerged.

03 Convergence of voluntary and compliance markets

Article 6 provides a framework for this convergence, so carbon credits will shift from being a global to a national asset that is closely linked to national emissions targets and climate policies.

04 Jurisdictional REDD+ credits are likely to become a significant source of credit supply in VCMs

JREDD+ credits are rising in popularity by reducing risks around inflated baselines and over-crediting, and by preventing 'leakage'.

05 Shift towards the use of distributed ledger technology (DLT) to address issues in carbon markets

There is enthusiasm for applying emerging technologies to expand the reach, credibility and scalability of carbon markets, including DLT which has the potential to e.g. improve transparency, traceability and efficiency of carbon markets.

06 Corporates are purchasing credits that deliver co-benefits and that are located near their emissions sources

Corporates are focusing on purchasing credits from projects near their emissions sources – and on directly investing into carbon projects within their supply chains or in local communities where they or their suppliers operate.

Buyer and supplier considerations

The quality of carbon credits is linked to a variety of characteristics

To even be issued, carbon credits must demonstrate key criteria

Additionality	Proving an offset comes from a project where the emissions reductions are 'additional' to what would have occurred if the project had not been carried out is key for integrity.
Permanence	Ensuring the emissions reduction/removal will not subsequently be "reversed" or will last a long period of time is key .
Real	Offsets must represent real emission reductions that have already occurred (i.e., the reduction is not projected to occur in the future)
Enforceable	Offset ownership is undisputed and enforcement mechanisms exist to ensure that all program rules are followed and the market's environmental integrity is upheld
Quantifiable	Emission reductions must be reliably measured or estimated, and capable of being quantified
Verifiable	Verifiers and the credibility of verification is evolving as perception on risks changes, ensuring verification from a credible provider helps provide assurance of quality.

Other characteristics are buyer-specific and can infer higher value/cost

Impact / Co-Benefits	High-impact offsets provide significant additional socioeconomic value to communities and contribute more widely to SDGs and are typically valued higher in the market.
Removal vs Reduction	Increasing advocacy for carbon removal (permanent removal of carbon) activity rather than carbon reduction (reducing amount of carbon emitted in the first place).
Vintage	Offsets with older vintages face greater scrutiny due to lower levels of verification and may be discounted in the future.
Geography	Legal and regulatory frameworks differ from country to country
Integrity	Adherence to emerging integrity frameworks, e.g. ICVCM's Core Carbon Principles (CCPs)

Slide Takeaway: Carbon credit procurement strategies should identify which characteristics are most important to a buyer.

Buyers and suppliers of carbon credits face unique questions upon entering the market

Buyers

What Should I Buy?

- Define objectives and quantity
- Narrow the Aperture
- Due Diligence

When Should I Buy?

- Rely on the market
- Strategic investments with assurance of supply
- Early off-take agreements

How Should I Buy?

- Brokers
- Invest in projects directly
- Build in-house trading capabilities
- Use newly established end-to-end platforms

Suppliers

Design and Certification

- Determine project type
- Select registry, methodology, and VVB
- Who to consult if a new methodology is required?

How to Market Credits?

- Brokers
- Seek early-stage funding with potential for early off-take agreements
- Pro-actively seek Rating Agency certification

Other Value Generated?

- Implementation of a carbon credit project may yield a better product or lead to cost savings
- Low Carbon Footprint product claims and premium may be possible

Reporting considerations

Regulatory guidance on carbon offsets

Regulations across the globe, from California to the EU, require specific disclosures around the use of carbon offsets. Such regulatory guidance helps to ensure that companies are transparent about their use of carbon offsets and are held accountable for meeting their climate-related targets and goals with legitimate and effective solutions.

California Voluntary Carbon Markets Disclosures

Effective January 1, 2024, the law requires companies to make specified disclosures on their website about carbon offset projects and accountability measures, based on type of business entity. This law is applicable to all US and international companies that undertake specified activities in California.

Commodity Futures Trading Commission

The Commodity Futures Trading Commission (CFTC) regulations apply to both carbon credit futures transactions and the markets underlying the pricing of carbon credits traded on US exchanges. CFTC oversight of these physical markets can cause risk related to the purchasing of specific carbon credits.

SEC Proposed Climate Rule

The SEC's proposed rule states that if company has set climate-related targets or goals, it must disclose whether they have used carbon offsets or RECs to achieve them, providing details such as the amount of carbon reduction represented by the offsets or the amount of renewable energy generated by the RECs.

International Sustainability Standards Board

The ISSB's Climate-related Disclosures (Draft S2) would require companies to disclose the intended use of carbon credits, disaggregating the net emissions targets and intended use of carbon credits from gross emission reduction targets.

CSRD's European Sustainability Reporting Standards

The European Sustainability Reporting Standards (ESRS) notes disclosure around:

- GHG removals and storage from projects developed in own operations or contributed to in value chain (E1-7, 56a)
- GHG emission reductions or removals from climate change mitigation projects outside value chain financed through purchase of carbon credits (E1-7, 56b)
- Removals and carbon credits used (E1-7, 58)

04

KPMG's Approach

KPMG has integrated the use of carbon credits into our ESG Strategy

KPMG has been proactive in integrating environmentally sustainable practices into its business operations. One critical component of this initiative was the **integration of carbon offsets into its ESG strategy and overall decarbonization efforts**. Integrating carbon offsets into your ESG strategy can help mitigate your organization's overall environmental impact and position it as a responsible corporate citizen. KPMG's successful integration of carbon offsets highlights the importance of a well-executed vendor selection process and the benefits of incorporating carbon offsets into your ESG strategy.

Vendor identification

In selecting a suitable vendor and project, our procurement lead compiled a list of nine potential vendors through searches and internal stakeholder recommendations. Our Corporate Sustainability team virtually met with each vendor, reviewing their projects, policies, compliance, and asking questions.

The **Arbor Day's Mississippi Alluvial Valley project** involves the replanting of trees on old farmlands, which aligns with KPMG's nascent Biodiversity efforts. In addition to the project's environmental benefits, it also has co-benefits that support native biodiversity and improves the health of the Mississippi River. The 4,000 MT purchase offsets KPMG's Scope 1 emissions for FY22 and FY23.

Strategy alignment & evaluation

Following our pre-defined guidelines, offsets had to be 3rd party verified, removal not abatement, and preferably purchased in the country of origin of emissions. The team assessed the nine vendors, evaluating them against cost, co-benefits, and the designated characteristics.

Final selection

Finally, our Carbon Offset committee made the final selection from the recommended top three vendors. The Arbor Day Foundation in partnership with Green Trees emerged the winner.

KPMG Team & Thought Leadership

Brooke Harris

Director, ESG – Energy Transition,
Houston, TX

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brookeharris@kpmg.com
LinkedIn

Background
Brooke is a Director in KPMG's ESG Hub, with a focus on the Energy Transition. Brooke works with organizations to identify strategies that can deliver value while achieving sustainability ambitions. To do so, Brooke leverages her deep expertise in energy policy, low carbon solutions, carbon offsets, and nature-based solutions. Brooke has 18 years of experience in the energy industry and holds degrees in international relations from Georgetown University and Johns Hopkins University.

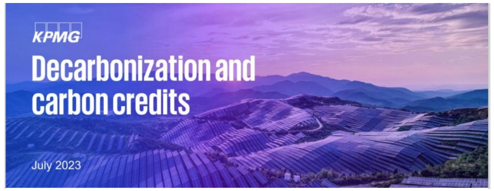
Kady Clincy

Associate, Advisory
New Orleans, LA

Tel +1 (713) 319 3255
kclincy@kpmg.com
LinkedIn

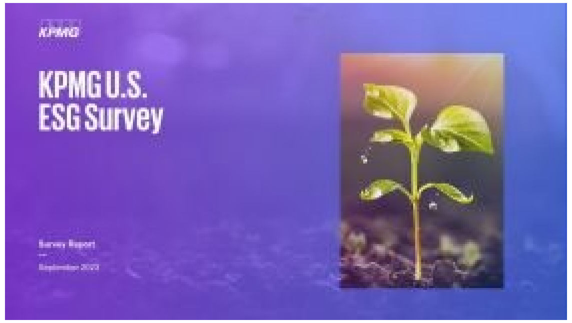
Background
Kady is an Associate supporting KPMG's ESG Hub, the firm's sustainability innovation unit. She is the staff lead on ESG learning and development initiatives. She also supports ESG thought leadership, research, and several go-to market initiatives. Kady graduated from the University of Tennessee with a Bachelor of Science in Applied Physiology. As an ESG Hub member, Kady stays current with the evolving sustainability landscape and is well-versed in the GHG Protocol.

Selected Thought Leadership



Decarbonization and Carbon Credits

Net Zero Readiness Report



KPMG US ESG Survey

Some or all of the services described herein may not be permissible for KPMG audit clients and their affiliates or related entities.

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

DAS-2023-13945

MADE in KPMG


2023 in Review

Core Team

- Jim Blackburn – CEO
- Miguel Gonzalez – Technical Operations Director
- Melanie Martin – Technical Operations Manager
- James FitzGerald – Research and Policy Manager
- Sarah Swackhamer – Research and Policy Analyst
- Bryan French – General Counsel
- Hope Trevino – Accounting Manager
- Garland Kerr – CPA
- Lalise Mason – Senior Coastal Planner

Credits & Protocols

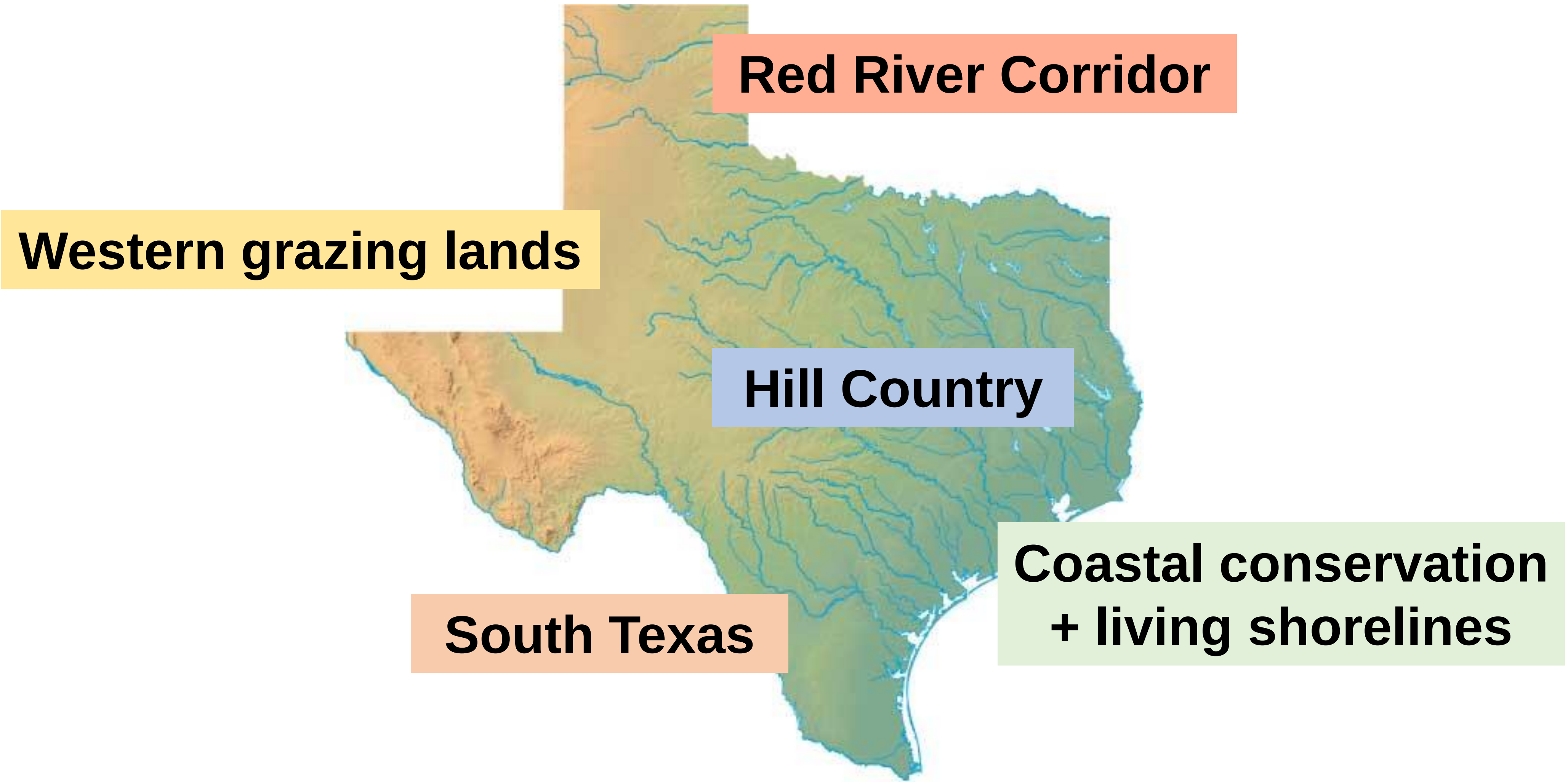
- YTD Credit Issuances
  - Soil – Issued 4,954, Under Review – 6,817
  - Forestry – Issued 26,000
  - Anticipating ~100,000 acres/credits in 2024
- Methane Protocol and Living Shorelines Protocol published
  - LOIs are forthcoming
  - Anticipating hundreds of thousands of credits in 2024

Funded Research Initiatives

- Exxon Mobil Grasslands Pilot
- Bia-Echo / PVAMU / BCSD small landowner carbon collaborative
- Point Comfort study + living shoreline feasibility assessment
- RMC commercial timber contract
- TAMU Climate Smart Initiative project
- *Biodiversity – currently an add on but seeking separate funding*

Goalsetting

Renewed focus on our Texas roots



+ Increasing our International Reach

Western grazing lands

Red River Corridor

South Texas

Hill Country

Coastal conservation + living shorelines

Implement existing protocols

Soil & Forest: accelerate credit volumes

- SOIL – 100,000+ acres
- FORESTRY – approx. 75,000

Living shoreline & methane: streamline application process and launch programs into implementation stage

- Plug 100 wells
- Accept and validate applications for 5 shoreline projects

Develop new protocols

Novel Protocols

- Harvested Wood Product Protocol with Rice Management Corporation (RMC)
- Solar/soil (Agrovoltaic) Protocol with Silicon Ranch Corporation

Additions to existing Protocols

- Biodiversity protocol, or add-on to existing protocols
- Making existing protocols more accessible for small landowners

Continue to research new ideas

- Explore budding carbon credit ***insurance market*** with the goal to replace buffer pools with credit/project insurance
- Initiate a ***biodiversity research program*** to develop our approach to co-benefits metrics for forest/soil and living shoreline/coastal work
- Project focused on ***engagement with the Hispanic community***, particularly in South Texas
- Complete phase one of ***small landowner carbon collaborative*** with PVAMU, BCSD, and Bia-Echo

Broaden our reach

- Increase activity on Substack and Linkedin
- Publish more of our research work via website and other channels
- Initiate more direct contact with buyers: create 20+ direct lines of communication
  - Via webinars, one-on-one meetings, conference attendance, etc.

Discussion

What would you like to see from BCarbon in 2024?