

Carbon Markets and Beyond: A Conversation on the Drivers

June 2021 Round Table Meeting



Garth Boyd

MODERATOR

THE CONTEXT NETWORK





Kris Johnson

THE NATURE CONSERVANCY



A close-up photograph of a hand wearing a pink nitrile glove, carefully planting a small green seedling into dark, rich soil. The background is slightly blurred, showing more of the field and a blue sky with light clouds. A semi-transparent white circle is overlaid on the center of the image, containing the main title and event information.

Agriculture as a Natural Climate Solution

Farm Foundation Round Table

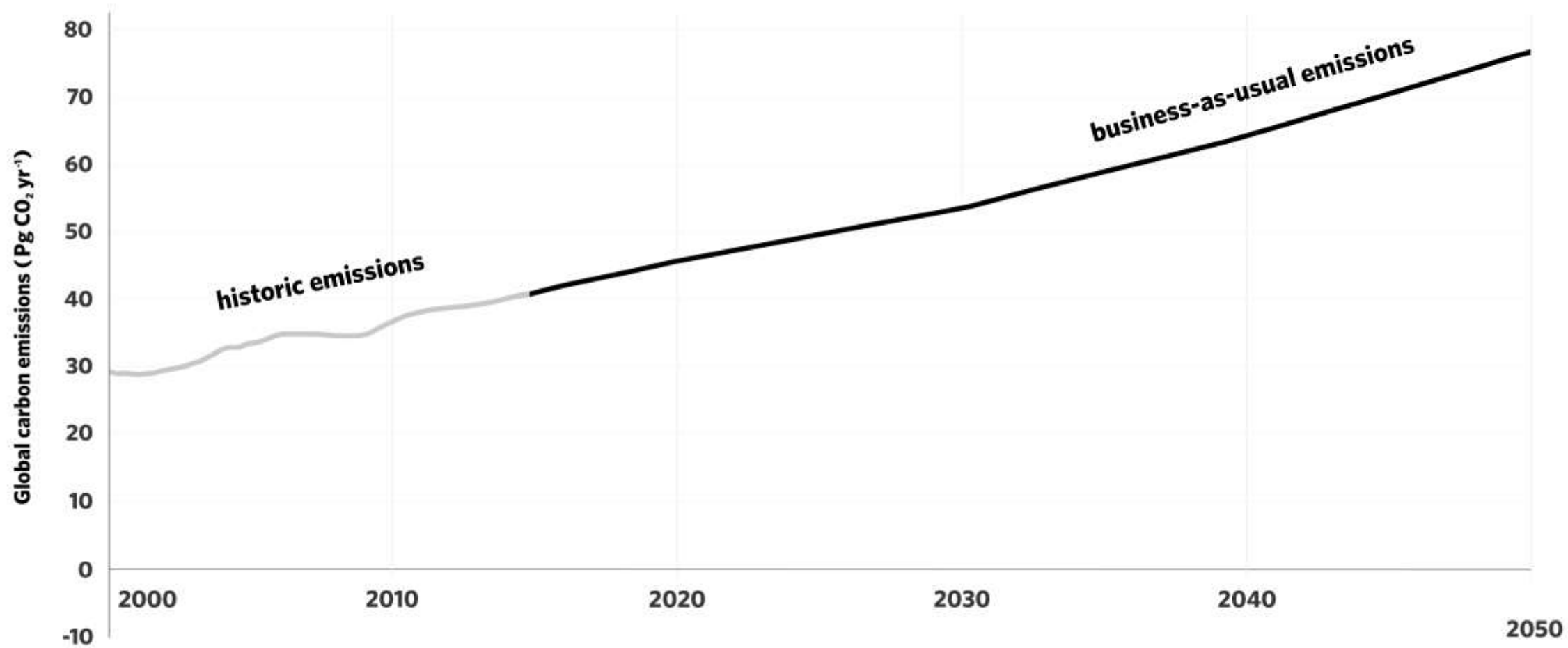
June 17, 2021



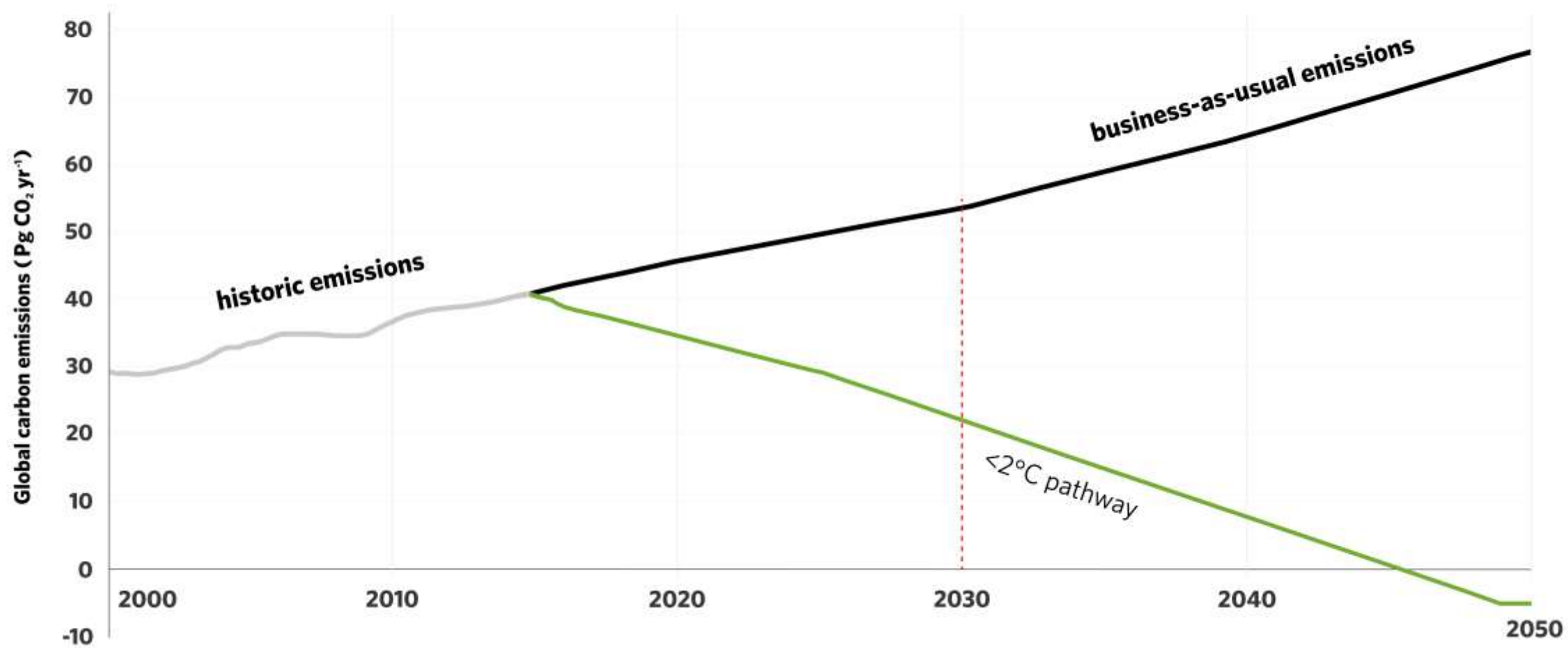
**NATURAL
CLIMATE
SOLUTIONS**

*How much can
they contribute?*

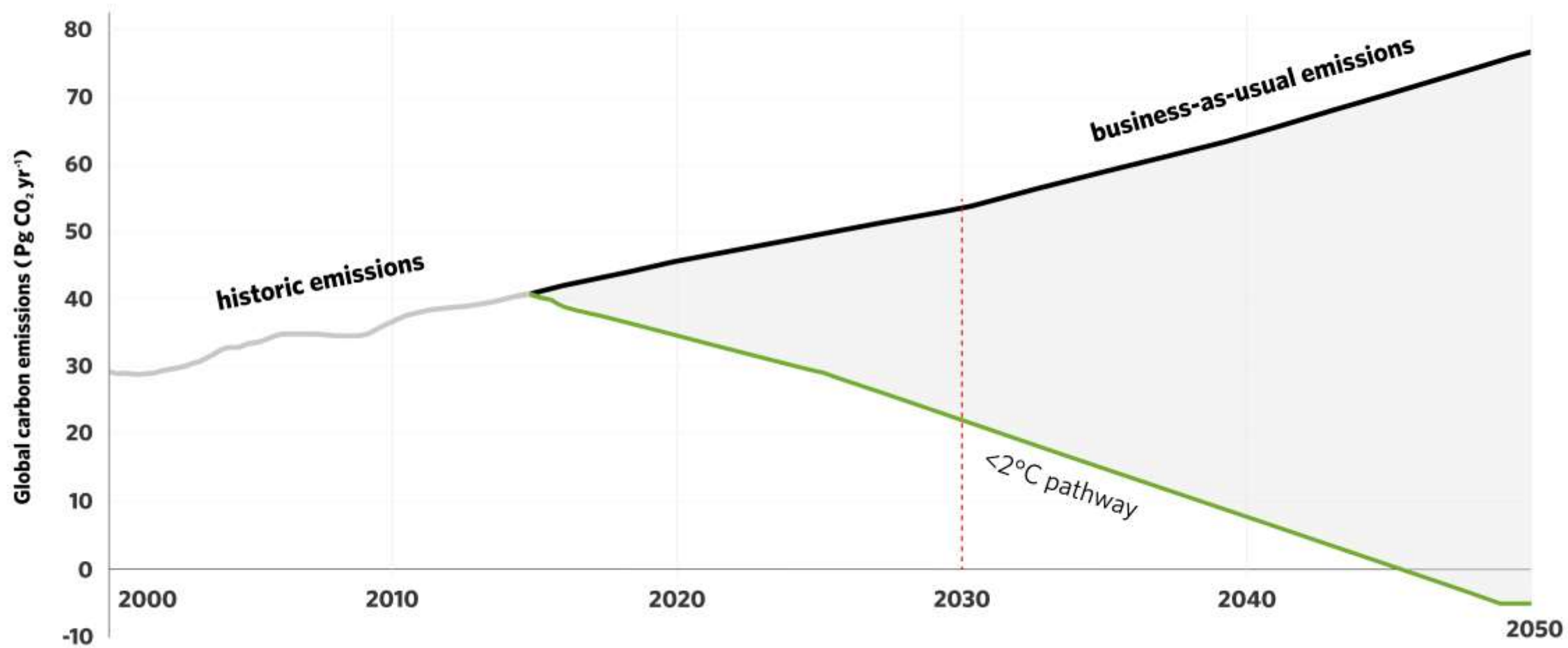
Natural Pathways contribution to stabilizing warming below 2°C



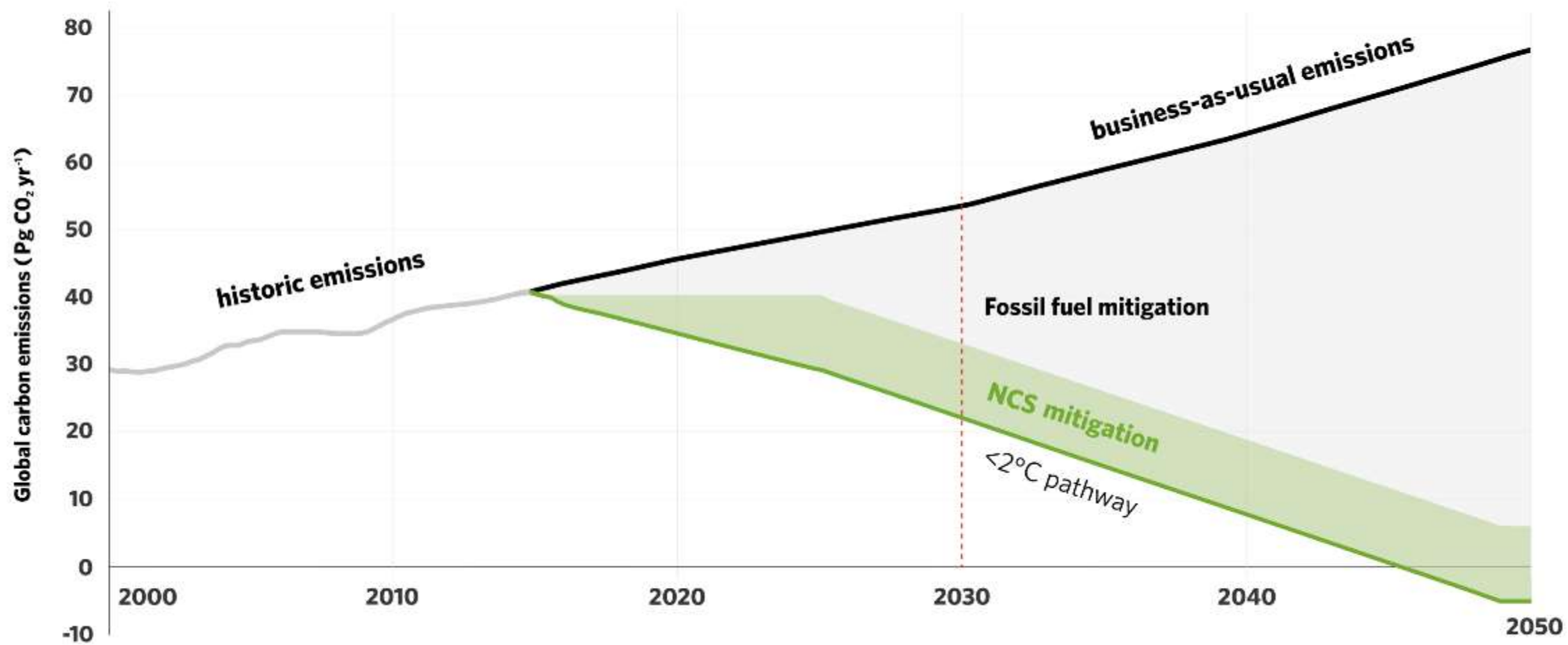
Natural Pathways contribution to stabilizing warming below 2°C



Natural Pathways contribution to stabilizing warming below 2°C



Natural Pathways contribution to stabilizing warming below 2°C



NATURAL CLIMATE SOLUTIONS

Reforestation

DEFORESTATION IN BRAZIL



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SEEDLINGS FOR REFORESTATION IN BRAZIL

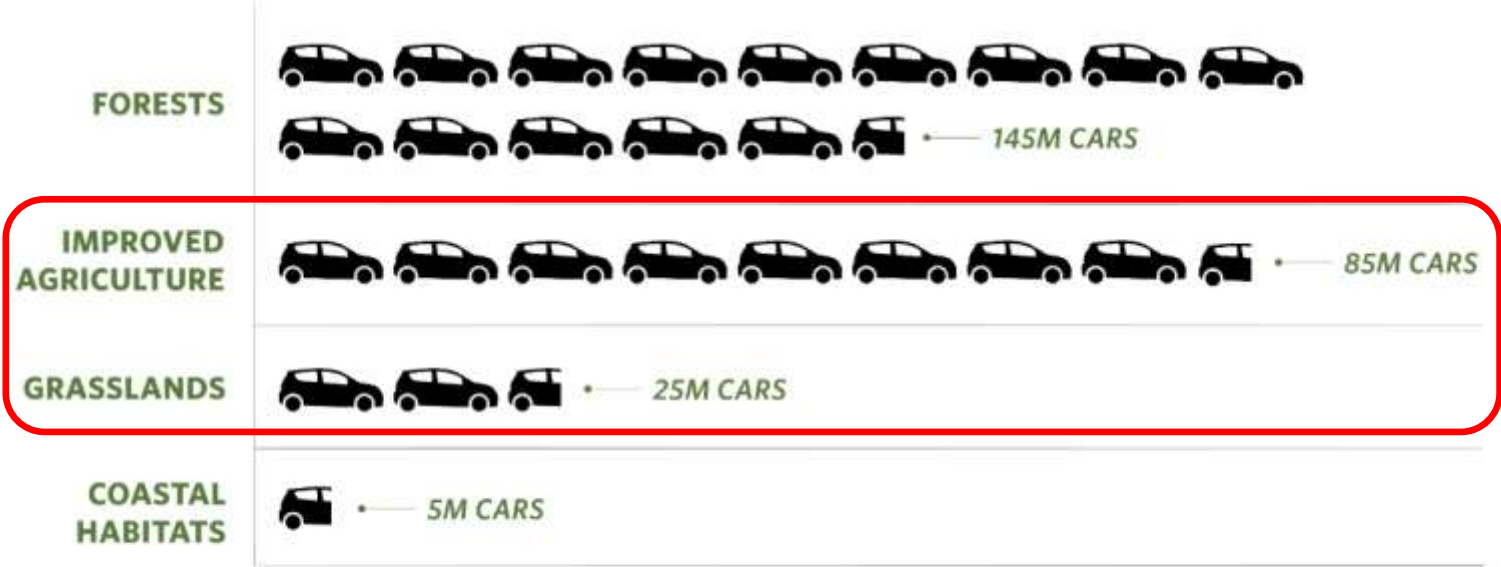


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Natural Climate Solutions in the US

NATURAL CLIMATE SOLUTIONS

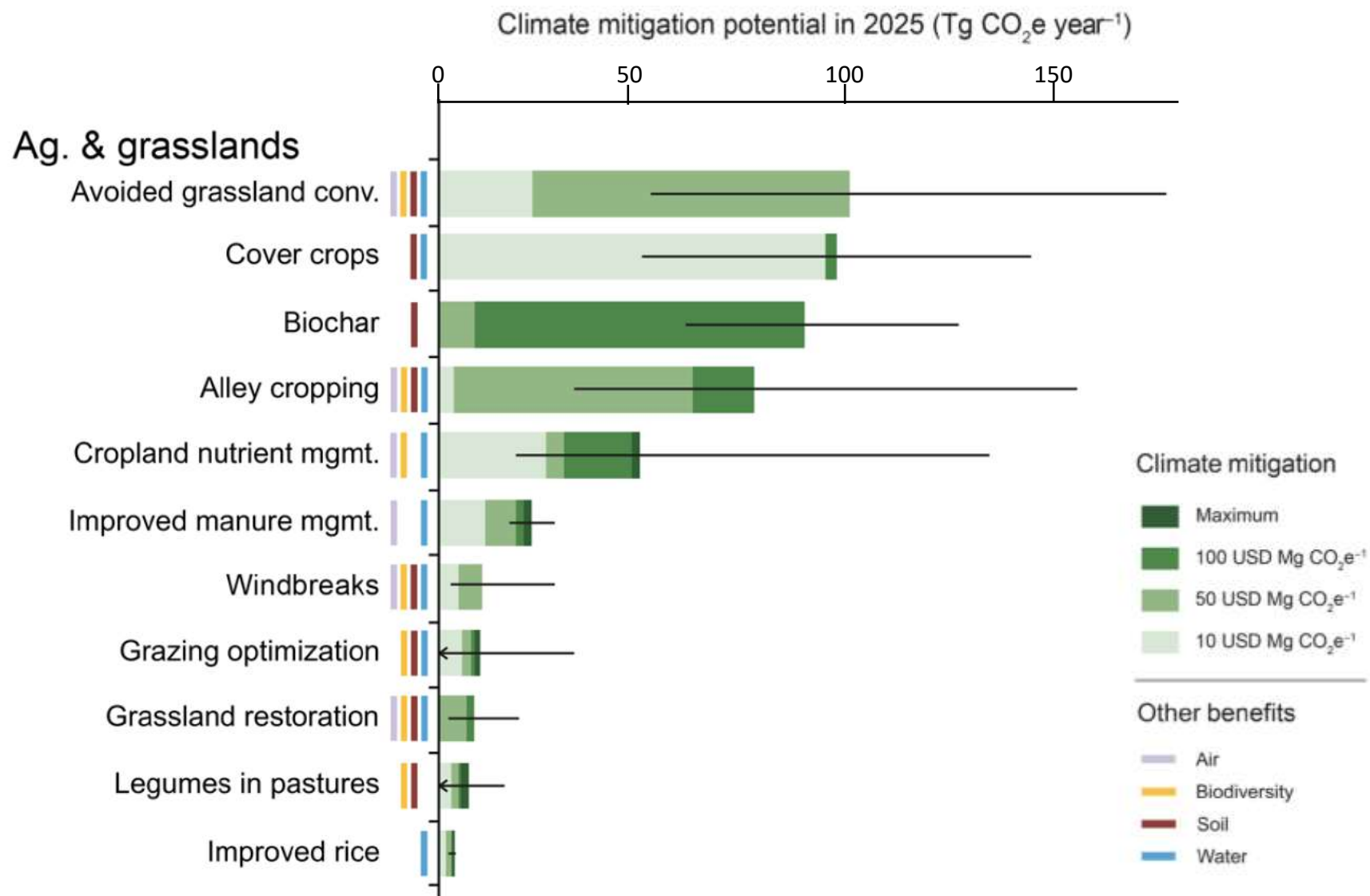
In the U.S., nature has potential to remove **21% of the nation's carbon pollution**—equivalent to removing emissions from **ALL cars and trucks on the road**...and then some.



U.S. Mitigation Potential: Approximate Number of Cars Removed Each Year in Millions

 = 10M cars

Natural Climate Solutions from US Agriculture



A close-up, high-angle shot of a forest floor. The ground is covered in dark brown soil, with numerous thin, light brown roots and twigs scattered across it. A single, bright yellow leaf is visible near the top center of the frame. The lighting is soft and natural, highlighting the textures of the soil and organic matter.

THE NEBRASKA SOIL CARBON PROJECT

PROJECT COMPONENTS AT A GLANCE



100,000
ACRES

OF NEW CARBON-STORING SOIL HEALTH PRACTICES



5

YEARS



100
FARMERS



3 PRACTICES

NO TILL, DIVERSIFIED
ROTATIONS, AND COVER CROPS.



\$8.8 MILLION

TOTAL BUDGET

PROJECT OUTCOMES AT A GLANCE

A close-up photograph of green leaves and branches in a forest, with sunlight filtering through the canopy.

150,000
METRIC TONS CO₂-E
STORED

A close-up photograph of a young green seedling with two leaves, set against a dark, blurred background.

ENHANCED RESILIENCE

An aerial photograph of a large agricultural field with distinct rows of crops, showing a mix of green and brown patches.

GETTING TO SCALE

THROUGH EMERGING CARBON MARKETS, ECONOMIC ANALYSES, AND PEER-TO-PEER LEARNING

A photograph of two people standing in a vast, dry, golden-brown field under a hazy sky.

FARMER CENTRIC
RESEARCH

AIR



WATER



Blackburnian Warbler, male
courtesy Jack Bartholmai

BIODIVERSITY



SOIL

A man and a woman are standing in a field of tall, golden-brown grass. The man, on the left, is wearing a dark green jacket and looking towards the woman. The woman, on the right, is wearing a brown jacket and blue jeans, and is holding a yellow folder or clipboard. They appear to be engaged in a conversation. The background shows a line of trees under a clear sky.

**We have an opportunity to ensure that
agriculture is part of the solution.**



THANK YOU!

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Living Dynamic Continuum

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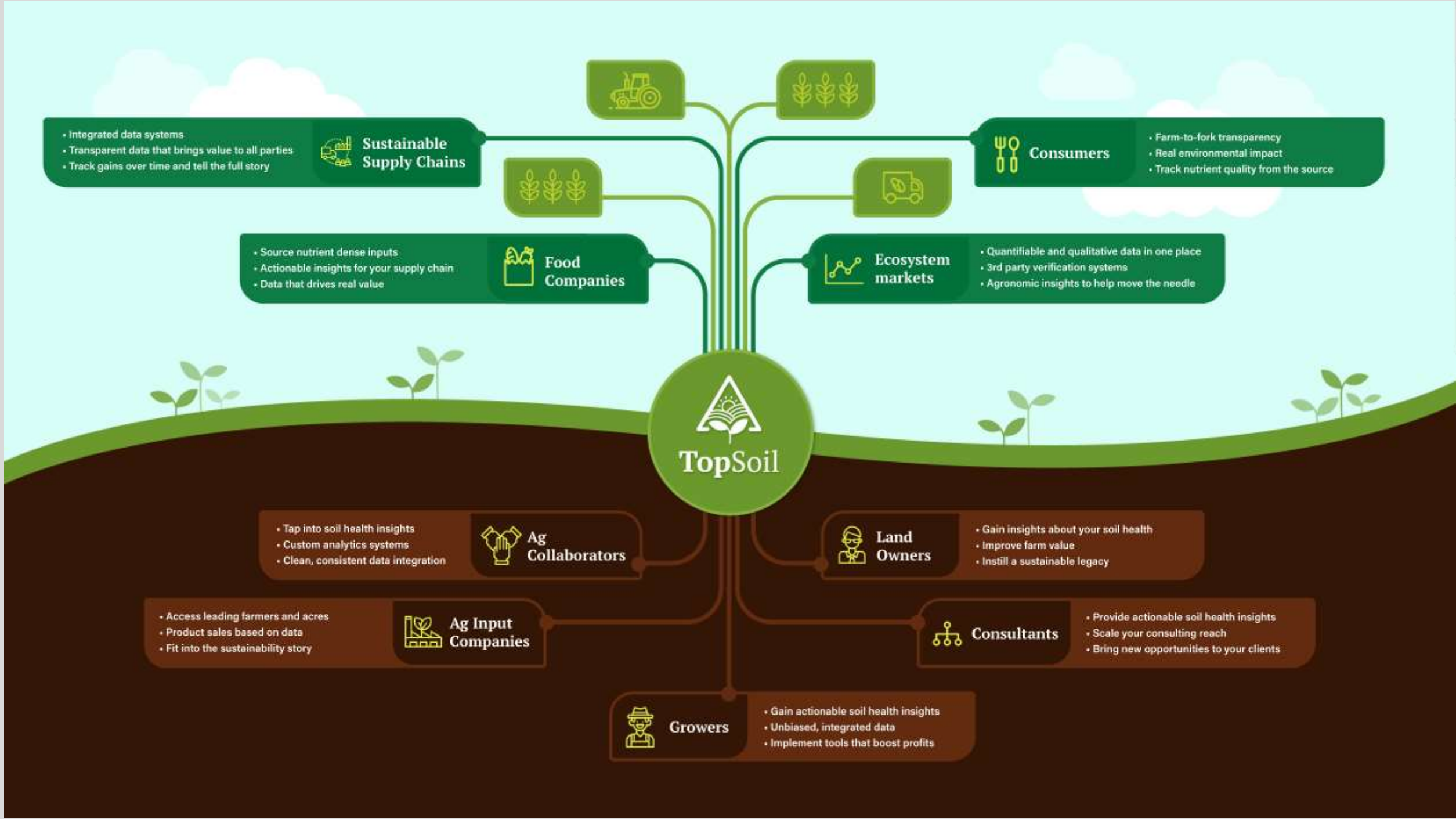




Emerging Markets

- Carbon Credits
 - Soil Organic Carbon
 - Sequester CO₂ aka microbe food
- Water Quality
 - Nitrogen, phosphorous, sediment
 - Offset cleaning costs
- Water Quantity
 - Water infiltration/holding
 - Reduce flooding and irrigation use
- Crop Quality
 - Nutrient balance/density
 - Quantifiable ties to human health





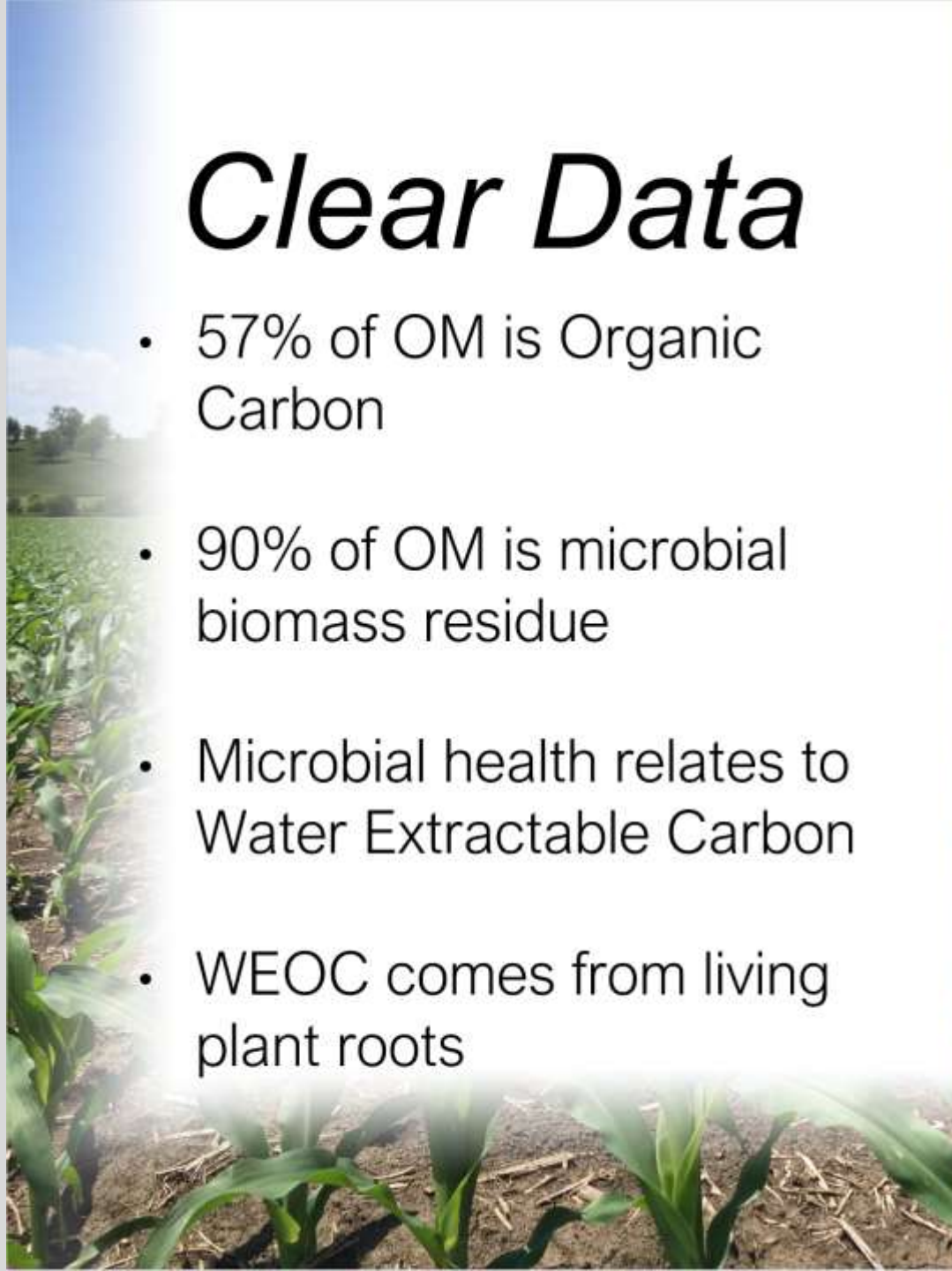
Carbon markets are cost share for practice change

- Can't be only “check the box”
- Must reverse engineer stable carbon so farmers can be innovative
- Give farmers a clear path toward creating and stacking new “assets”
- Ensure transparency



Clear Data

- 57% of OM is Organic Carbon
- 90% of OM is microbial biomass residue
- Microbial health relates to Water Extractable Carbon
- WEOC comes from living plant roots



Improving Soil Health

- Use data to overcome logistic and economic risk concerns
 - Minimize disturbance
 - Armor the soil
 - Living roots at all times
 - Foster diversity
 - Integrate livestock

Living. Dynamic. Continuum.
Not

A dead static growing medium



Improving Soil Health

- Hora's have reduced synthetic fertilizer by up to 50%
- Reduced pesticides by 50% on corn and 75% on soybeans
- Record setting yields
- Making money with soil health



Infiltration

- Hora farm water infiltration results with only 3 years of cover crops
- 4" of water infiltration in 5 minutes
 - 1" - 0:06
 - 2" - 0:26
 - 3" - 1:13
 - 4" - 2:24





Continuum Ag

The Catalyst for
Sustainable Agriculture

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