Sustainability Insights







Why Scope 3 Emissions?

Value chain emissions, also known as **Scope 3 emissions**, occur from the agricultural production of ingredients and materials that go into consumer-packaged goods.

On average, value chain emissions are 11.4 times higher than operational emissions. This is the largest category of emissions for agrifood companies.

To lower greenhouse gas emissions and meet sustainability targets, agrifood companies must work with value chain partners to accelerate the transition to sustainable practices.

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Higher than Operational Emissions





Scope 3: Tracking & Reporting Barriers

- Increasingly complex standards, reporting and governance landscape
- Lack of reliable and location-specific land management data
- Static, default emission factors from generalized databases
- Time and data management burden on internal teams
- Need for third-party LCA consultants
- Trends in the adoption and location of regenerative agricultural practices are difficult to aggregate
- Data analysis and underlying science is complicated and difficult to understand for non-technical decision makers

These barriers make it challenging to deliver a clear and credible business case for investing in agricultural supply chain interventions.





Regrow's Sustainability Insights

empowers leaders in the agrifood supply chain to plan investments that lower Scope 3 emissions and monitor sustainability progress using science-based and verifiable data.





Sustainability Insights Platform

Data to explore. Insights to act. Facts to report.

- Baseline supplier-specific emission factors and sustainability metrics
- Improve accuracy of ESG reporting with dynamic and supply shed-specific data
 - Discover highest-impact opportunities for emissions reduction and carbon removal
 - Plan and prioritize strategic investment in resilient farming programs

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Measure progress toward Scope 3 sustainability targets



Assess trends in regenerative practice adoption at large scale





Configure Supply Sheds

Map sourcing areas and supply sheds

Select areas of interest by county, state or watershed

Select a radius around processing facilities or areas of interest

Customize location-specific data to view, filter and save for reporting, analysis and communication





Baseline Sustainability Metrics

Generate supply shed-specific data

View sustainability metrics for your areas of interest

Use precise and dynamic data to report EF, GHG and SOC

Filter data by crop, crop year and configured regions

Save views to highlight specific metrics or regions relevant to stakeholders

Sustainability Dashboard

Filter by: 7 regions selected 🗸 29 crops selected 🗸 Crop year 2020 🗸 Shared Program views 👻



Sustainability Outcomes

Baseline, monitor and report how regenerative adoption impacts greenhouse gas emissions, carbon sequestration (removals) and crop yields in your supply sheds. Learn more here about calculations and methodology for ESG reporting. **GHG emissions** 0 0 dSOC sequestration Net emissions Crop yield in metric tonnes CO2 eq. in metric tonnes CO2 eq. in metric tonnes CO2 eq. in kg/acre 7.4M tonnes 5.3M tonnes 2.1M tonnes 27.6k 0.241 tonnes per acre 0.0931 tonnes per acre 0.334 tonnes per acre Compared to 2019 Compared to 2019 J. 17% Compared to 2019 ¥ 22% ↓ 35% Compared to 6 year avg. + 33% Compared to 6 year avg. Compared to 6 year avg. **1 8%** 140% 3.4k eanuts 1.8 6 year avo 9.8m tonne 6 year avg 4.9m tonne 6 year avo 4.9m tonne Scybeans 1.4k Sorghum 1.3k Wheat, Winter 1.1k Bapeseed 894.1 2015 2020 2015 2020 2015 2020 Next 10 2



Sustainability Dashboard Metrics





Analyze Supply Sheds

Explore regenerative adoption

Assess and compare adoption of regenerative practices by region

View data for cover crops, tillage, fertilizer application, *crop rotation*, *living root land use change*

View outcomes on GHG, SOC, field EF and crop yield

Data available at state, CRD, county and HUC levels

Historical data available from 2015 to present (United States) and 2017 to present (Canada)





Assess Adoption Trends

Evaluate location-specific trends

Analyze and compare trends in regenerative practice adoption to understand impact of initiatives

View data for cover crops, tillage, fertilizer application, *crop rotation*, *living root and land use change*

Data available at state, CRD, county and HUC levels

Historical data available from 2015 to present (United States) and 2017 to present (Canada)



Calculate Abatement Potential

Quantify future opportunities

Evaluate potential outcomes of regenerative practices on GHG emissions and SOC sequestration for specific regions

View data for cover crops, tillage, fertilizer application, *crop rotation, living root land use change*

Data available at state, CRD, county and HUC levels

Historical data available from 2015 to present (United States) and 2017 to present (Canada)





Calculate Abatement Potential

Request custom reports and analysis

Get detailed analysis on the impact of selected interventions including:

Highest-impact opportunities ranked by supply shed and crop

Quantification of potential GHG reductions and SOC sequestration

Reduction and removal comparison

Emission factor analysis



Monitor Progress

Track sustainability outcomes

View measurable progress toward sustainability targets

Generate verifiable science-based reporting data

Utilize data for ESG and LCA reporting, materiality assessments and project design documents

Data available as a flat file or CSV download

Sustainability Dashboard



Agricultural practices

Monitor trends in regenerative practice adoption and analyze supply shed specific patterns over time for management practices such as conservation tillage, cover cropping, fertilizer application, crop rotation and land-use change. Learn more here about Regrow's calculations and methodology for ESG reporting.

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Precise & Dynamic Reporting Data



OpTIS Remote Sensing

Using satellite imagery and machine learning, OpTIS identifies land management history at the field level and verifies intervention activities. This technology is validated by ground-truth data, and studies comparing OpTIS results with 5,000 roadside observations report that OpTIS delivers 85-90% accuracy at the locations analyzed.



DNDC Soil Model

Globally-recognized model for soil outcome measurement that simulates how microbes react to changes in the soil. Peer-reviewed in more than 500 publications and maintaining 95% accuracy, DNDC enables precise measurement at scale. **Regrow received the industry's first and only generalized approval under the Climate Action Reserve's Soil Enrichment Protocol for use of the DNDC soil model.**



Precise & Dynamic Reporting Data

Field-Level Insights

Field-level crop and management data is verified and aggregated for analysis at HUC, county, crop reporting district, state and supply shed levels

Advanced Soil Modeling

Greenhouse gas outcomes are calculated using location-specific data on soil and weather, and historical data on crops and land management



Dynamic Data Collection

Remote-sensing data is generated from satellites and updated every three to five days, minimizing lag time in data collection

Wide Range of Crops

Sustainability Insights supports analysis on 30 crops across a growing number of regions

