Quantifying and Reducing Scope 3 Greenhouse Gas Emissions

Maggie Monast
Senior Manager, Agricultural Sustainability
>50% of consumers would pay more for brands with social/environmental impact
Walmart commits to reducing 1 gigaton of GHGs = The annual GHG emissions of Germany
Leverage the power of the marketplace to make every product safer, healthier and better for the environment.
Leveraging the marketplace

Businesses win because they become more efficient and resilient.

Consumers win because they can purchase safer, healthier products.

The planet wins because much less demand is placed on its air, land and water.
Emissions in a typical supply chain

Upstream Activities

Reporting Company

Downstream Activities

Scope 1 – Direct
• Direct fuel combustion in company facilities and vehicles

Scope 2 – Indirect
• Purchased electricity, steam, heating, and cooling for own use

Scope 3 – Indirect
• Purchased goods and services
• Capital goods
• Fuel & energy related activities
• Transportation and distribution

Scope 3 – Indirect
• Transportation & distribution
• Processing of sold products
• Use of sold products
• End-of-life treatment of sold products
### Emissions in a vertically-integrated supply chain

<table>
<thead>
<tr>
<th>Upstream Activities</th>
<th>Reporting Company</th>
<th>Downstream Activities</th>
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<tbody>
<tr>
<td><strong>Scope 1 – Direct</strong></td>
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<tr>
<td>Emissions from <em>company-owned</em> facilities, farms, and transport</td>
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<td><strong>Scope 2 – Indirect</strong></td>
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<td><strong>Scope 3 – Indirect</strong></td>
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<td>Emissions from feed or animals produced by contract and independent farmers</td>
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<td>Emissions from other sources not owned by the company</td>
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How to Address Supply Chain Emissions

1. Understand your supply chain
2. Set a science-based goal for improvement
3. Implement
4. Measure and report
5. Communicate and scale
Step 1: Understand your supply chain

- Where are your ingredients coming from, who produces them, and how?
- What are the major hotspots for those ingredients?
- What opportunities for improvement align with your organizational priorities?
Corn Footprint: Hogs

http://www.foods3.org/
Corn Footprint: Cattle

http://www.foods3.org/
Step 2: Set a science-based goal for improvement

- Specific to your footprint
- Measurable/reportable
- Aligned with what the climate needs

http://sciencebasedtargets.org
Step 3: Implement

- What opportunities for improvement are already proven to be effective?
- What’s the business case for growers to engage?
- How can your organization incentivize broader adoption?
Step 4: Measure and report

- What performance metrics are most important to you, your farmers, and your customers?
- Do the data systems exist to easily collect and consolidate that information?
Step 5: Communicate and scale
“We invested in sustainable feed grains for a handful of reasons – but primarily because it’s just smart business. We don’t fully know the economic potential of SmithfieldGro, but we do know that helping farmers become more efficient while protecting their yields benefits our bottom line – and theirs.”

Kraig Westerbeek
Senior Director
Smithfield Renewables