THE SUSTAINABILITY CONSORTIUM™

Sustainable Commodity Supply Chains Project

Case Studies and a Framework for Addressing Sustainability in Commodity Procurement and Supplier Codes of Conduct

September 2017

Table of Contents

1. Executive Summary

Project Goals

The primary objective of the Sustainable Commodity Supply Chains project was to utilize collective action to gain transparency into the sustainability attributes used to reduce environmental and social impacts in commodity supply chains. To meet this objective, TSC engaged in four key activities:

1. Conduct **case study interviews** to learn how agricultural commodities are purchased
2. **Compare and contrast** supplier codes of conduct in the agricultural sector [1]
3. **Evaluate** how food and agriculture companies' supplier codes of conduct compare to their publicly stated corporate sustainability goals
4. Create a **sustainability framework** for commodity procurement

Through the case study interviews, TSC sought to gain insight into the purchasing and data collection landscape related to sustainability in commodity crops and to better understand the sustainability attributes that commodity companies and food manufacturers use during their commodity procurement process. Building on these findings, the purpose of the supplier codes of conduct analysis was to determine the current status of how commodity procurement guidelines are used in the agricultural sector. Additionally, the intent of the supplier codes of conduct and corporate sustainability goals analysis was to help companies identify and address any issue gaps between their corporate sustainability goals and supplier requirements. Lastly, the purpose of the sustainability framework was to identify core elements and issues across supplier codes of conduct, agricultural supplier codes of conduct, and other guidance documents companies use to help drive consistency, streamline requests around commodity purchasing, and send consistent messaging through commodity supply chains.

[1] The initial intent of the project was to compare and contrast procurement guidelines currently used in commodity purchasing. After preliminary research, it became apparent that most companies use supplier codes of conduct in place of specific commodity purchasing guidelines. Accordingly, TSC shifted the project scope to cover supplier codes of conduct to more accurately depict the "rules" companies use during commodity procurement.

Project Scope

The commodities covered under the scope of this project include corn, cotton, palm oil, rice, soy, and wheat intended for human consumption. Some of these commodities were also included in the scope as feed ingredients for livestock, including beef, chicken, dairy, and pork. The information presented in this report may also be applicable to other commodities, as well as specialty crops.

Project Stakeholders

TSC enlisted the participation of numerous agricultural stakeholders for this project, including food manufacturers, commodity suppliers, agricultural input providers, agricultural consultants, and NGOs. Over the course of ten months, TSC held two in-person workshops and three webinars to present findings to project participants and elicit further input. For the project timeline and complete list of project participants, see Appendix A and B, respectively. All materials developed through the project, such as workshop/webinar presentations and minutes, the supplier code of conduct analysis, and draft deliverables are available at http://tscmembers.org/amtf/cscp/default.aspx.

Summary of Findings

The case study interviews revealed that sustainability specifications beyond food safety and quality are generally lacking. Specifications are the written statements regarding quality, quantity, or other important characteristics required of the products or ingredients purchased for preparing a food or feed item. These "specs" help to ensure the safety, quality, and nutrition of the food or feed item produced and can also address sustainability issues.

Of the few sustainability "specs" employed by the companies interviewed, ingredient certification ranked highest, followed by grower compliance with the company's supplier code of conduct and

grower participation in farm-level sustainability programs, such as Cool Farm Tool, Field to Market, or the Sustainable Agriculture Initiative. Another important finding was that companies are concerned about the quality and accuracy of data transmitted from farm to retail, due to the numerous barriers to data flow, the lack of streamlined systems to collect and report farm-level data, and the overall complexity of commodity supply chains. Finally, nine of the companies interviewed reported that there is a need for a single, streamlined approach to collecting and reporting farm-level data that involves agreement on the sustainability issues addressed, the questions asked, and the format in which farm data moves through the commodity supply chain.

At present, companies are not largely interested in commodity procurement "specs" out of concern for geographic and environmental variability, diversity of production systems, and the complexity of commodity supply chains – all of which pose a challenge to securing grower buy-in and enforcing sustainability "specs." Rather, most companies interviewed indicated that they use supplier codes of conduct – a series of established principles and expectations used when sourcing ingredients – or other agricultural supplier requirements to address sustainability issues. The discovery that companies largely do not use sustainability specifications when procuring commodities led to the analysis of supplier codes of conduct to better understand which sustainability issues companies are addressing during commodity procurement.

Findings from the Supplier Code of Conduct Analysis show that food and ag companies as a whole currently prioritize social sustainability issues above environmental sustainability issues in their supplier codes of conduct. This trend is consistent across each of the four types of companies included in the assessment (agricultural input providers, commodity suppliers, animal processor, and food/CPG company) and may be a byproduct of both general international consensus and more stringent regulation around basic social and human rights, in comparison to environmental protections. Additionally, the lack of consistent coverage of sustainability issues within the different food and ag companies' supplier codes of conduct sends a mixed signal to suppliers regarding which issues are important, which issues they are expected to demonstrate compliance with, and which issues they may be expected to collect and report data for.

The Supplier Code of Conduct and Corporate Sustainability Goals Alignment Analysis suggests that there is room for companies to increase alignment between their supplier codes of conduct and corporate sustainability goals. Doing so will help to ensure consistency across the sustainability issues a company addresses and send a stronger signal regarding the need for collective action around reducing environmental and social impacts in commodity supply chains.

Lastly, companies can take the following actions to advance sustainability in their commodity supply chains:

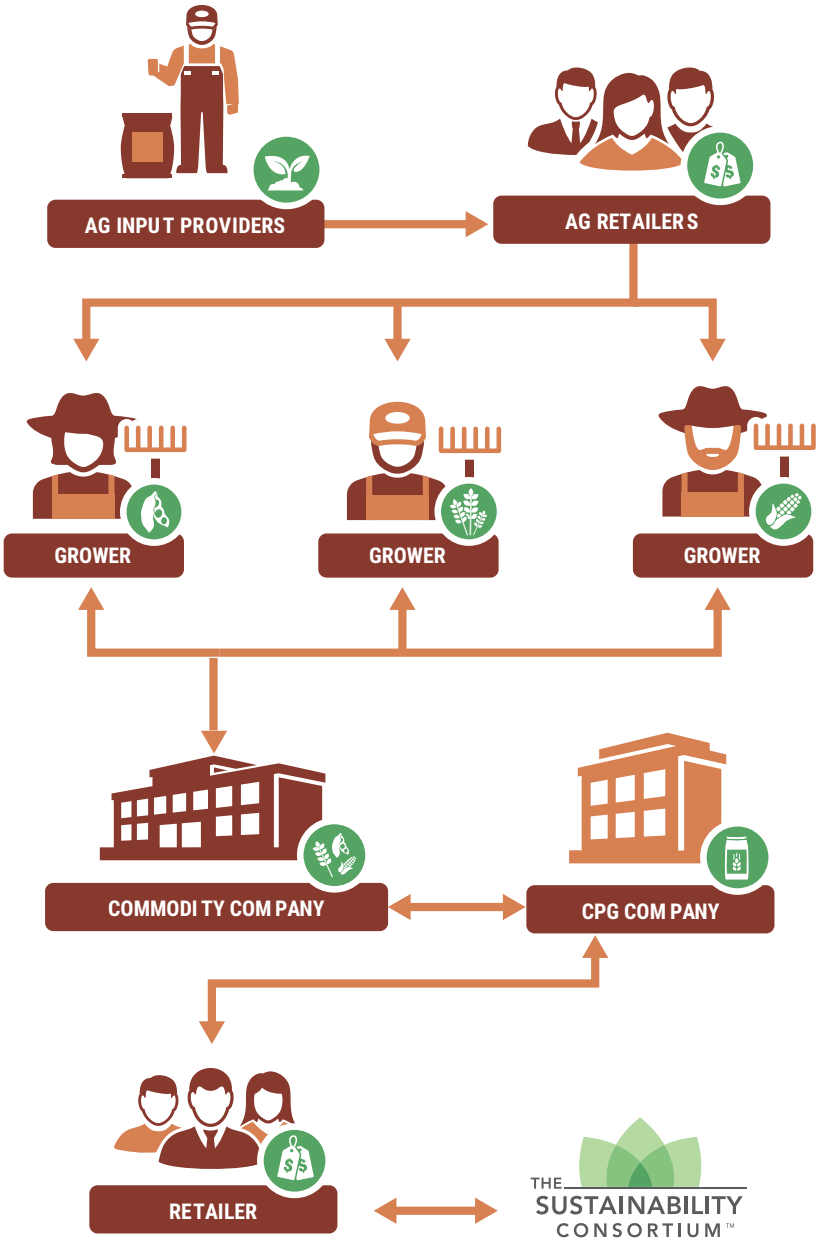
- Incorporate sustainability into commodity purchasing specifications when appropriate (i.e., certifications)
- Ensure that supplier requirements (i.e., supplier codes of conduct, agricultural supplier codes of conduct, and other guidance documents) include the relevant sustainability issues listed in this framework and have audit or verification requirements to ensure compliance and progress
- Ensure that supplier requirements align with corporate sustainability goals to communicate a more comprehensive and cohesive message around sustainability performance goals and outcomes to suppliers and stakeholders

2. Introduction

Issue Summary

By sending a consistent signal for sustainability attributes throughout the supply chain, collective action can increase transparency into the sustainability attributes of commodity markets, causing rapid, large-scale, transformative change in the food industry and the reduction of environmental and social impacts in commodity supply chains.

Flow of Sustainability Information through Agriculture Supply Chains



Context

- **Unprecedented demand for food**

  With global population increasing to 11 billion by 2100, the demand on the world's food systems to provide adequate nourishment is unprecedented.

- **Need for sustainable agriculture**

  The need to improve agricultural systems to be not only self-sufficient but also sustainable in the long-term is paramount to meeting the global demand for food into the future.

- **Lack of data and transparency**

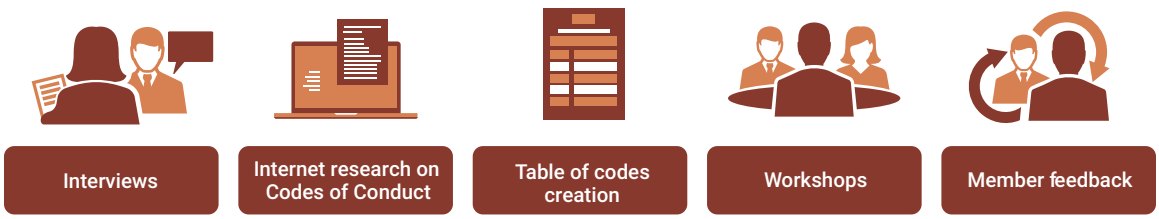
  Today, there is very little visibility into the sustainability impacts of food value chains, making it challenging to identify opportunities and drive improvement.

- **Impact on food companies**

  This lack of transparency, together with the lack of understanding about how commodities are produced, puts food companies at reputational risk with consumers and retailers and may represent supply risk to the company.

Project Methods

In preparation for the case study interviews and supplier code of conduct analysis, TSC conducted an assessment to determine the major food, feed, commodity, animal processing, agricultural input, and consumer packaged goods (CPG) companies relevant to commodity supply chains. Companies were identified primarily through a review of TSC's member companies, internet searches, and recommendations from project participants. Companies identified through this process were then invited to participate in a case study interview with TSC staff. The objective of the case study interviews was to gain insight into the purchasing and data collection landscape related to sustainability in commodity crops and to better understand the sustainability attributes that commodity companies and food/CPG companies use during their commodity procurement process. Invited participants that were not available for an interview were asked to fill out an online survey that consisted of the case study questions.



Next, TSC staff conducted an internet search to obtain the supplier codes of conduct, agricultural supplier codes of conduct, and other guidance documents used for commodity purchasing for each of the identified companies. All of the documents included in the supplier code of conduct analysis were retrieved from company websites. For each company, TSC staff transferred the language for every recommendation or requirement included in its supplier code of conduct into an Excel spreadsheet organized by company name. Each recommendation or requirement was then organized by the type of issue it was categorized under in its respective supplier code of conduct. For example, the BASF Supplier Code of Conduct identifies its recommendation that "Suppliers are expected to minimize their impact on biodiversity, climate change, and water scarcity" as an "Environment" issue. Accordingly, this recommendation is tagged under "Environment" in the spreadsheet. After the recommendations and requirements from each company's supplier code of conduct were entered into the spreadsheet, TSC staff then determined the areas of overlap and the gaps across issues addressed, both by company type and across the commodity supply chain as a whole.

TSC staff also collected information on corporate sustainability goals from the web pages of each of the identified companies and from publicly available documents hosted on their websites. Next, each company's corporate sustainability goals were compared to its supplier code of conduct. The purpose of this exercise was to identify opportunities for increasing consistency across the sustainability issues covered within each company's commodity supply chains.

In addition, TSC held two stakeholder workshops. The first workshop was held on April 11, 2017, during which project participants provided feedback on the Sustainability Code of Conduct Framework. Namely, workshop attendees identified the most important components and principles that should be included in a robust sustainability code of conduct or supplier guidance framework and provided feedback on the programs and tools that companies can use to address sustainability issues in their commodity supply chains. The second workshop was held on August 9, 2017, during which project participants provided additional feedback on the Sustainability Code of Conduct Framework, the list of programs and tools that can be used as resources when addressing sustainability issues in commodity supply chains, and use cases for this document.

All project findings and milestones were reported to project participants through both in-person workshops and webinars. Project stakeholders were also invited to review draft materials and provide feedback on project deliverables during two comment periods held in June and August 2017. Comments and suggestions received throughout the duration of the project were incorporated into project deliverables whenever possible.

How to Use This Document

TSC envisions multiple use cases for this document.

Companies that currently have a supplier code of conduct, agricultural supplier code of conduct, and/or other guidance documents for purchasing sustainable commodities in place can:

- Use the Supplier Code of Conduct Analysis to evaluate how their code of conduct or guidance document compares to other companies in their sector.
- Use the Sustainability Code of Conduct Framework to identify gaps and opportunities for improving their existing codes or guidance documents, in turn helping to drive a consistent signal for sustainability expectations through commodity supply chains.
- Use the Supplier Code of Conduct and Corporate Sustainability Goals Alignment Analysis to evaluate how their supplier codes of conduct compare to their publicly stated corporate sustainability goals, identify any issue gaps between their corporate sustainability goals and code of conduct or guidance document requirements, and develop a strategy for increasing alignment between the two.
- Use the programs and tools that are listed in the Sustainability Code of Conduct Framework to drive progress and impact on sustainability requirements and corporate sustainability goals.

Companies that do not currently have a supplier codes of conduct, agricultural supplier code of conduct, or other guidance documents in place can:

- Use the elements in this document to lay the groundwork for developing a supplier code of conduct that is based on robust principles, incorporates the most relevant sustainability topics and issues in their sector, and is aligned with corporate sustainability goals.
- Use the programs and tools that are listed in the Sustainability Code of Conduct Framework to address common sustainability topics and issues in a manner that is consistent with other agriculture related companies, further streamlining sustainability requests and strengthening the market signal for sustainability expectations in commodity supply chains.

3. Case Study Interviews

The goal of the case study interviews was to understand the purchasing and data collection landscape as it relates to sustainability in commodity crop supply chains. To this end, TSC conducted 14 case study interviews with representatives from food manufacturing/CPG companies, commodity supply companies, and agricultural input companies. The case study interview questions were aimed at understanding how companies currently purchase commodities; what, if any, sustainability "specs" or attributes are used in their purchasing decisions; and the programs or mechanisms in place to help growers produce a sustainable commodity. To help build out the context for the commodity production and procurement landscape, case study interviewees were also asked to describe what farm-level sustainability data is currently available to them, what data they are capable of transmitting to customers, any communication and/or technological barriers they've experienced related to the flow of sustainability data from farm to retail, and what solutions would help to address those barriers. In addition, case study interviewees were asked to share the incentives they currently offer to growers in exchange for sustainability data and what incentives could potentially be offered in the future to drive demand for sustainable commodity production. For a list of case study interview participants and questions, see Appendix B and C, respectively.

Findings

One of the central findings of the case study interviews was that, when purchasing commodities, many companies make a distinction between food and feed specifications and the codes of conduct they expect their suppliers to adhere to. Food and feed specifications are the written statements regarding quality, quantity, or other important characteristics required of the products or ingredients purchased for preparing a food or feed item. These "specs" help to ensure the safety, quality, and nutrition of the item produced and can also address sustainability issues. For example, several of the food companies interviewed reported using palm oil, fish oil, or organic certification – all of which address sustainability to some degree – as a "spec." In general, food and feed specifications are often proprietary in nature and form the basis for rejecting or accepting shipments of a good – in this case, a food or feed ingredient. On the other hand, supplier codes of conduct are a series of established principles and expectations that companies use when sourcing ingredients for the products they sell (in the case of commodity companies) or produce (in the case of food manufacturers). In comparison to food and feed specifications, a company's supplier code of conduct is typically publicly disclosed – usually on its website – and is not used to reject or

MOST COMMON
SPECS REQUIRED OF SUPPLIERS

PALM OIL

FISH OIL

ORGANIC CERTIFICATION

accept product ingredients. Degree of compliance for supplier codes of conduct is variable: some companies encourage their suppliers to follow the code while others treat adherence to the code as a requirement for maintaining the buyer-supplier relationship. For companies that require adherence to supplier codes of conduct, enforcement ranges from no enforcement to supplier self-reporting to second- or third-party supplier audits.

Other case study findings can be grouped into three key areas:

1	2	3
Sustainability Issues and Goals	Commodity Procurement	Farm Data Collection

Sustainability Issues and Goals

The top three sustainability issues noted by case study participants as important to their businesses include:

- Greenhouse gas emissions
- Resource use efficiency
- Waste

TOP
SUSTAINABILITY ISSUES

Greenhouse gas emissions

Resource use efficiency

Waste

TOP
SUSTAINABILITY GOALS

Greenhouse gas emissions reduction

Resource and input reduction/efficiency

Waste reduction

The following twelve sustainability issues were addressed by ag input providers, commodity suppliers, and food/CPG companies, suggesting a continuity across the supply chain regarding which sustainability issues are deemed important:

- Biodiversity
- Climate change adaptation
- Deforestation and land use change
- Farm productivity and profitability
- Greenhouse gas emissions
- Labor conditions
- Resource use efficiency
- Smallholders
- Supply chain sustainability
- Waste
- Water quality
- Worker health and safety

Similarly, the top three sustainability goals identified by case study participants include:

- Greenhouse gas emissions reduction
- Resource use and input reduction/efficiency
- Waste reduction

Each of these goals, in addition to water quality, are addressed by all three supply chain categories, reinforcing continuity across supply chain regarding sustainability goals (Table 1).

Commodity Procurement

The case study interviews indicate that the commodity procurement process varies by company. The two most common approaches cited by interviewees are: 1) sourcing directly from growers or producers and 2) sourcing through commodity aggregators, brokers, or traders.

Additional results related to commodity production and sourcing requirements include the following:

- Seven food manufacturing/CPG companies require certification for specific ingredients, such as palm or fish oil, or for organic or non-GMO products. Less common commodity purchasing specifications include requirements for cage free or crate free animal production, pesticide residue limits, and food safety requirements.

Table 1. Sustainability issues and goals important to case study participants*

	Ag Retailers	Commodity Suppliers	Food/Cpg Manufacturers	Total
	4	2	8	13
SUSTAINABILITY ISSUES				
Animal Welfare	0	0	2	2
Biodiversity	3	1	1	5
Climate change adaptation	1	2	2	5
Community engagement	0	2	1	3
Deforestation & land use change	1	2	4	7
Farm productivity & profitability	1	1	2	4
Greenhouse gas emissions	3	2	4	9
Labor conditions	2	1	3	6
Nutrient management	2	0	0	2
Nutrition	0	1	2	3
Overall environmental impact of production	0	0	1	1
Packaging	0	0	5	5
Palm oil	1	0	3	4
Pest/disease pressure	0	0	1	1
Product quality & safety	1	0	2	3
Resource use efficiency (e.g., water, fertilizer)	4	2	6	12
Smallholders (market access, training)	1	1	1	3
Soil health	2	0	3	5
Supply chain sustainability	1	1	2	4
Supply chain transparency	0	0	1	1
Waste	2	1	6	9
Water quality	3	1	2	6
Worker health & safety	3	1	3	7
SUSTAINABILITY GOALS				
Certification	0	0	3	3
Community rights	0	1	0	1
Develop a risk assessment tool for procurement	0	0	1	1
Eliminate deforestation in commodity supply chains	0	2	0	2
Encourage best practices at farm-level	2	1	1	4
Enhance farmland biodiversity	1	0	0	1
Expand grower participation in environmental initiatives	0	1	1	2
Fair labor conditions	1	0	2	3
Maximize farmer productivity & profitability	3	0	1	4
Packaging	0	0	3	3
Reduce supply chain greenhouse gas emissions	3	2	5	10
Renewable/low-carbon energy use	1	2	2	5
Resource & input reduction/efficiency	4	2	7	13
Smallholders (market access, training)	1	0	0	1
Soil health	1	0	3	4
Supply chain transparency & traceability	0	2	1	3
Sustainable food supply	1	0	0	1
Sustainable sourcing of packaging materials	0	0	2	2
Sustainable sourcing of raw commodities	0	0	4	4
Waste reduction	0	1	4	5
Water quality	1	1	2	4
Worker health & safety	2	0	0	2

* Companies interviewed include: BASF, Bayer CropScience, Bunge, Campbell's, Cargill, Dean Foods, Kellogg's, Monsanto, Organic Valley, PepsiCo, Pharmavite, Post Holdings, Syngenta, and Unilever. The numbers in each cell indicate the number of companies that identified the sustainability issue or goal as a concern.

- Four food manufacturing/CPG companies require supplier compliance with their respective codes of conduct.
- Six of the nine companies that purchase commodities implement supplier audits as part of the procurement process.
- One commodity supplier and three food manufacturing/CPG companies require grower participation in farm-level sustainability initiatives, such as Cool Farm Tool, Field to Market, National Dairy FARM Program, or the Sustainable Agriculture Initiative (Table 2).

Table 2. Commodity procurement: Process and specifications/requirements*

	Commodity Suppliers	Food/Cpg Manufacturers	Total
	2	8	9
COMMODITY PROCUREMENT PROCESS			
Establish long-term grower relationships	2	1	3
Implement supplier audits	0	6	6
Source through approved vendors	0	2	2
Source through commodity aggregators/brokers/traders	1	3	4
Source directly from growers/producers	2	4	6
Source through grain mills	0	1	1
Source through ingredient manufacturers/processors	0	2	2
Work with suppliers to identify product origin	0	1	1
SUSTAINABILITY SPECS USED IN COMMODITY PURCHASING			
Cage free	0	1	1
Certification (e.g., fish oil, palm oil, non-GMO, organic)	0	7	7
Compliance with company code of conduct	0	4	4
Crate free	0	1	1
Grower participation in farm-level sustainability program (e.g., Cool Farm Tool, FARM, Field to Market, SAI)	1	3	4
Pesticide residue limits	0	1	1
Quality requirements	0	3	3
Safety requirements	0	1	1

* The numbers in each cell indicate the number of companies, by company type, that identified the attribute, specification, or requirement as part of their commodity procurement process.

Farm Data Collection

Lastly, the case study interviews provided valuable insight into the farm data collection aspect of commodity procurement:

- Of the 13 companies interviewed, just two (one ag input provider and one CPG company) reported that they do not currently collect farm- or field-level data.
- Among the 11 companies that do collect farm data, the most common data collection approach is through metrics tools or projects (e.g., Cool Farm Tool or Field to Market) or other digital platforms.

- Three of the companies interviewed collect farm data through farm or field visits, two companies obtain data from their suppliers, and two companies procure data through precision ag technologies.

In terms of farm data management, the top three IT systems and tools used among the companies interviewed are: 1) custom software or databases (seven companies), 2) farm management tools (seven companies), and Microsoft Excel (four companies). One food/CPG company reported using no consistent system to manage farm data.

Case study interviewees cited numerous communication and technological barriers to data flow through the commodity supply chain. The top three barriers include:

1. Grower concern regarding data confidentiality and security (seven companies),
2. Incompatible data collection and reporting systems (six companies), and
3. Variable access to and use of modern technology, such as the Internet (four companies).

Other communication and technological barriers reported by the companies interviewed include inconsistent metrics across platforms, too many data requests, and lack of context or clear value proposition for data requests.

Ten of the companies interviewed reported offering some type of incentive to growers to encourage data sharing in spite of these barriers. These incentives include:

- Monetary incentives (five companies)
- Continued market access (five companies)
- Opportunities for sustainability marketing (four companies)

Other types of incentives offered to growers by commodity, food manufacturing, and CPG companies include performance benchmarking, cost-sharing, and technical assistance (Table 3).

Case Study Summary

The case study interviews revealed that sustainability specifications beyond food safety and quality are generally lacking. Of the few sustainability "specs" employed by the companies interviewed, ingredient certification (e.g., fish oil, palm oil, non-GMO, organic) ranked highest, followed by grower compliance with the company's supplier code of conduct and grower participation in farm-level sustainability programs, such as Cool Farm Tool, Field to Market, or the Sustainable Agriculture Initiative. Another important finding was that, due to the numerous barriers to data flow, the lack of streamlined systems to collect and report farm-level data, and the overall complexity of commodity supply chains, companies are concerned about the quality and accuracy of data being transmitted from farm to retail. Finally, when asked whether a common set of guidelines for sustainable commodity procurement would be useful to them, nine of the companies interviewed reported that yes, there is a need for a single, streamlined approach to collecting and reporting farm-level data that

involves agreement on the sustainability issues addressed, the questions asked, and the format in which farm data moves through the commodity supply chain. At present, companies are not largely interested in commodity procurement "specs" out of concern for geographic and environmental variability, diversity of production systems, and the complexity of commodity supply chains – all of which pose a challenge to securing grower buy-in and enforcing sustainability "specs."

Table 3. Farm data collection*

	Ag Retailers	Commodity Suppliers	Food/Cpg Manufacturers	Total
	4	2	7	13
DATA COLLECTION PROCESS				
Collect data from metrics tools/projects (e.g., Cool Farm Tool, Field to Market) or other digital platforms	3	1	4	7
Farm/field visits	0	2	1	3
No data collected	1	0	1	2
Obtain data from commodity companies, suppliers	0	0	2	2
Precision ag technology	2	0	0	2
IT SYSTEMS/TOOLS USED FOR DATA COLLECTION AND REPORTING				
Custom software, databases	0	1	6	7
Excel	0	0	4	4
Farm management tools	3	2	2	7
No consistent system	0	0	1	1
BARRIERS TO DATA FLOW				
Competition concerns	2	0	0	2
Data confidentiality/security concerns	2	2	3	7
Expense of measurement technology	0	0	1	1
Frequent changes to metrics, survey questions	0	1	1	2
Incompatible data collection and reporting systems	1	1	4	6
Inconsistent metrics across platforms	1	1	1	3
Insufficient data systems (i.e., currently very manual)	0	0	2	2
Lack of context for data requests	1	1	0	2
Question comprehension	0	1	0	1
Supply chain complexity/limited visibility upstream	0	0	2	2
Time and resource constraints	0	1	1	2
Too many data requests/survey fatigue	1	0	2	3
Unclear value proposition for growers	0	1	0	1
Variable record-keeping at farm level	0	0	1	1
Variable access to/use of modern technology (e.g., Internet)	0	1	3	4
INCENTIVES OFFERED FOR FARM DATA				
Analysis of business opportunities	1	0	1	2
Benchmarking	0	0	2	2
Contact with brand	1	0	0	1
Continued market access	0	1	4	5
Cost-sharing for soil sampling, cover crops	0	0	2	2
Guaranteed long-standing buyer-seller relationships	0	1	1	2
Monetary (e.g., premiums)	2	1	2	5
Sustainability marketing	1	0	3	4
Technical assistance	0	0	2	2
Tools create awareness of farm-level efficiencies & inefficiencies	1	1	1	3

* The numbers in each cell indicate the number of companies, by company type, that identified the attribute as part of their data collection and management process.

4. Supplier Code of Conduct Analysis

The objective of the supplier code of conduct analysis was to learn the "rules" that companies currently have in place related to sustainable commodity procurement. To this end, TSC evaluated 19 publicly available supplier codes of conduct to better understand how food and agriculture companies incorporate sustainability issues into their commodity procurement process (Table 4).

Table 4. Companies included in supplier code of conduct analysis

	Ag Input Provider	Commodity Supplier	Animal Processor	Food/CPG Company
ADM		x		
BASF	x			
Bayer CropScience	x			
Bunge		x		
Cargill		x		
Dean Foods				x
Dow	x			
DuPont	x			
General Mills				x
JBS			x	
Kellogg's				x
Mars				x
Monsanto	x			
Post Holdings				x
Smithfield			x	
Syngenta	x			
The Hershey Company				x
Tyson			x	
Unilever				x

Across the 19 supplier codes of conduct evaluated, the top sustainability topics addressed include legal compliance (18 codes), worker health and safety (17 codes), business integrity and ethics (17 codes), child and forced labor (16 codes), discrimination and harassment (15 codes), freedom of association and collective bargaining (15 codes), and working hours (15 codes).

TOP
SUSTAINABILITY TOPICS
ADDRESSED IN CODES OF CONDUCT

19 codes
ANALYZED

- **Legal compliance** — 18 codes
- **Worker health and safety** — 17 codes
- **Business integrity and ethics** — 17 codes
- **Child and forced labor** — 16 codes
- **Discrimination and harassment** — 15 codes
- **Freedom of association and collective bargaining** — 15 codes
- **Working hours** — 15 codes

Sustainability topics with the least focus include nutrient management (1 code), pest management (1 code), biodiversity (2 codes), and migrant labor (2 codes). The only common issue addressed by each of the six ag input providers' supplier code of conduct is discrimination and harassment. For the three commodity suppliers, legal compliance is the only common issue addressed. Among the food/CPG companies, two issues – business integrity and ethics and legal compliance – are addressed by all seven companies. In contrast, each of the three animal processors cover multiple common issues in their supplier codes of conduct: child and forced labor, worker health and safety, information security, and legal compliance (Table 5).

Table 5. Sustainability topics addressed in supplier codes of conduct*

Sustainability Topics	Ag Input Providers	Commodity Suppliers	Animal Processors	Food/Cpg Companies	Total
	6	3	3	7	19
ENVIRONMENTAL					
Air quality	4	0	1	1	6
Animal welfare	1	0	2	2	5
Biodiversity	1	0	0	1	2
Deforestation & land use change	0	0	0	3	3
Energy conservation	3	0	1	4	8
Greenhouse gas emissions	2	0	1	4	7
Nutrient management	0	0	0	1	1
Pest management	0	0	0	1	1
Resource conservation (soil, water)	5	0	1	3	9
Waste management	4	0	1	4	9
Wastewater management	2	0	1	2	5
SOCIAL					
Child & forced labor	5	2	3	6	16
Conflict minerals	3	0	0	0	3
Discrimination & harassment	6	1	2	6	15
Freedom of association & collective bargaining	5	2	2	6	15
Indigenous & community land rights	0	0	0	3	3
Migrant labor	1	0	0	2	2
Smallholders	1	0	0	2	3
Wages & benefits	4	2	2	6	14
Worker health & safety	5	2	3	7	17
Working hours	5	2	2	6	15
OTHER					
Business integrity & ethics	5	2	3	7	17
Compliance & verification	3	1	1	2	7
Information security	4	2	3	3	12
Legal compliance	5	3	3	7	18
Product quality & safety	3	2	2	6	13
Supply chain transparency/origin mapping	0	1	0	3	4

* The numbers in each cell indicate the number of companies, by company type, that address the sustainability topic in their supplier code of conduct.

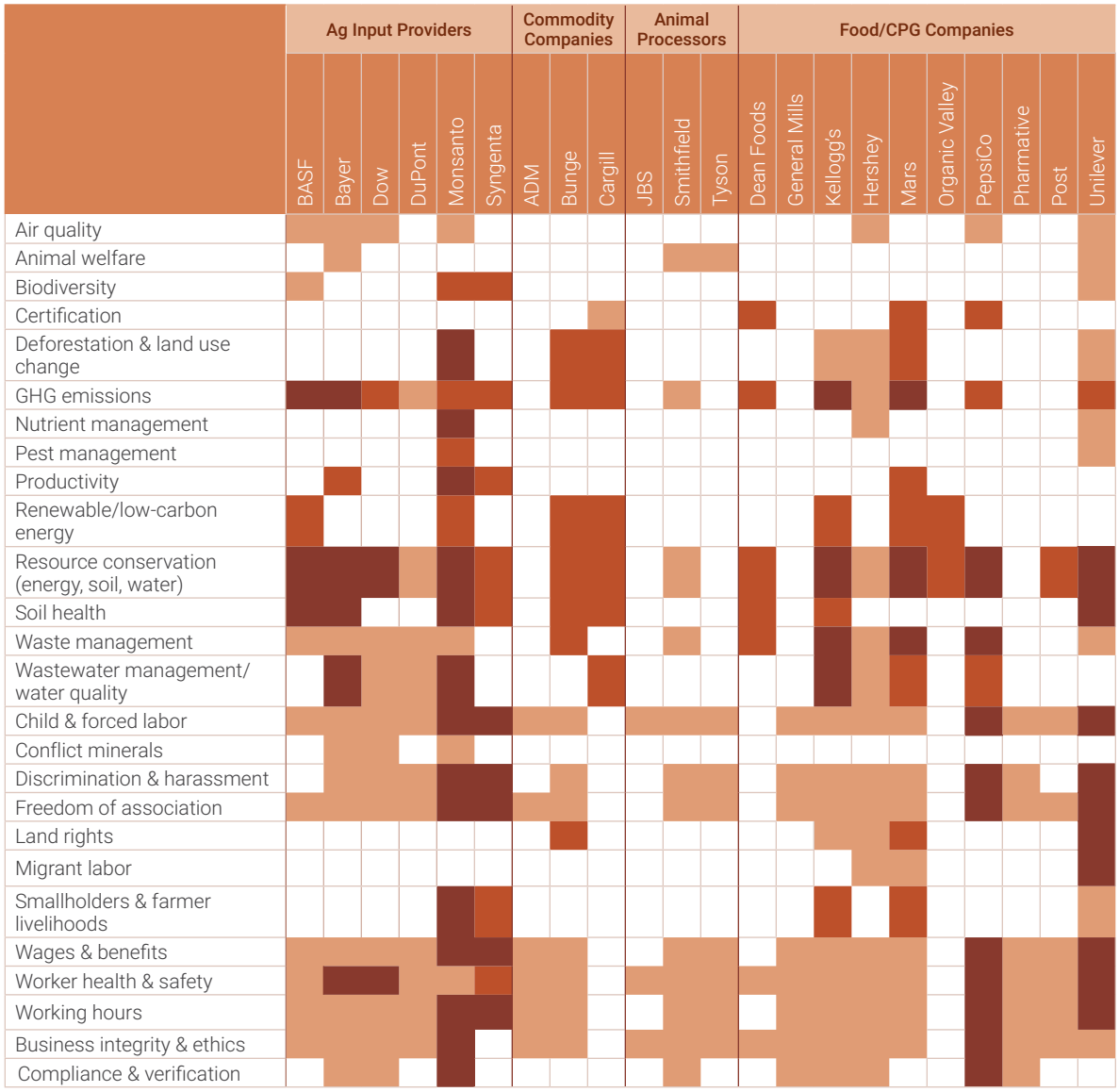
These results indicate that food and ag companies as a whole currently prioritize social sustainability issues above environmental sustainability issues in their supplier codes of conduct. This trend is consistent across each of the four types of companies included in the assessment and may be a byproduct of both general international consensus and more stringent regulation around basic social and human rights, in comparison to environmental protections. Additionally, the lack of consistent coverage of sustainability issues within the different food and ag companies' supplier codes of conduct sends a mixed signal to suppliers regarding which issues are important, which issues they are expected to demonstrate compliance with, and which issues they may be expected to collect and report data for.

5. Supplier Code of Conduct and Corporate Sustainability Goals Alignment Analysis

The purpose of the Supplier Code of Conduct and Corporate Sustainability Goals Alignment Analysis is to show how the supplier codes of conduct for various companies along the commodity supply chain compare to their publicly stated corporate sustainability goals. The analysis identifies the existing issue gaps between the codes of conduct evaluated in this project and the respective corporate sustainability goals of the companies those codes of conduct belong to (Table 6).

Using the alignment analysis, companies can identify the gaps relevant to them and then develop a strategy for increasing alignment between their supplier code of conduct and corporate sustainability goals. The Sustainability Code of Conduct Framework included in the next section can be used to help create or increase alignment across the sustainability issues addressed in both documents. By aligning supplier codes of conduct with their corporate sustainability goals, companies will send a clear and cohesive message around the sustainability performance goals and outcomes that are important to them and also identify opportunities for engaging their commodity supply chains in the effort to meet those goals.

Table 6. Comparison of corporate sustainability goals and sustainability issues addressed in supplier codes of conduct



6. Sustainability Code of Conduct Framework

To help send a consistent and streamlined signal to the various suppliers in the commodity supply chain, TSC and project participants developed a Sustainability Code of Conduct Framework that food and ag companies can use to evaluate how their code compares to other companies in their sector, identify gaps and opportunities for improving their existing codes, or develop a supplier code of conduct if they do not already have one in place.

The Sustainability Code of Conduct Framework includes:

1. A list of components that are recommended for a robust supplier code of conduct
2. A sustainability issue framework that identifies common sustainability topics, specific issues, programs and tools to help address sustainability issues, and the TSC KPIs that food and CPG companies are currently using to measure sustainability progress
3. Examples of guidelines that address sustainability topics drawn from the 19 supplier codes of conduct evaluated.

For more information about the programs and tools identified in Framework Part 2, refer to Appendix D.

Framework Part 1: Components of Robust Supplier Code of Conduct[2]

Component	Guidance
Introduction: Preamble	■ The introduction should identify the purpose of the sustainability code of conduct.
Introduction: Scope	■ The introduction should identify the types of commodities covered by the code. ■ The introduction should identify who is responsible for adhering to the code. For example, is the "supplier" anyone who touches the product prior to manufacturing (e.g., ag retailers, growers, grower cooperatives, commodity brokers/traders/aggregators, ingredient processors, energy providers, logistics)? ■ The introduction should identify if there are different requirements for direct and indirect suppliers. ■ The introduction should identify how the code aligns with the company's corporate sustainability goals.

Principle: Compliance	■ The code should require a minimum of legal compliance.
	■ The code should identify the mechanisms in place to verify compliance.
	■ The code should identify the specific types of feedback given based on different levels of compliance.
	■ The code should identify the corrective actions taken when compliance isn't met. For example:
	  ■ For minor non-compliance and/or violation of best practices, if corrective action isn't taken after ample time, the company would no longer source from the supplier.
	  ■ For major non-compliance and/or violation of legal requirements, if corrective actions are not taken immediately, the business relationship may be automatically severed.
	■ The code should encourage/require accountability for verification at each stage of the supply chain, e.g., each stage of the supply chain is responsible for holding the next closest upstream stage accountable to the code.

Principle: Transparency	■ The code should identify how the code increases transparency into supply chain activities.
Risk Management Protocol	■ The code should require that suppliers implement a risk management protocol and provide guidance and/or resources for protocol development, if needed.
Sustainability Metrics	■ The code should identify the types of metrics used, if any, to measure compliance for each sustainability issue covered.
Economic Sustainability	■ The code should identify how the sustainability issues addressed in the code contribute to short- and long-term profitability. ■ The code should identify any incentives offered to suppliers if data is required to verify the code.
Consent	■ The code should require that suppliers sign an agreement indicating their consent to abide to the code and accept responsibility for any corrective actions that may need to be taken.
Glossary	■ The code should provide definitions for key concepts or principles to improvesupplier comprehension of the sustainability issues addressed, e.g., deforestation, forced labor, etc.

[2] The components of the Sustainability Code of Conduct were identified by project participants and are not specifically endorsed by TSC. The framework may be used to review or create other documents related to supplier requirements and is not limited to codes of conduct.

Framework Part 2: Sustainability Issue Framework and Supporting Resources[3]

Sustainability Issues	Specific Issues	Programs and Tools	TSC KPIs
Air quality	Human health Terrestrial toxicity	Almond Board of California Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) Sustainable Food Trade Association	Air Emissions Discharge Air Quality
Biodiversity	Deforestation Ecosystem services Endangered species Habitat conversion High conservation value areas Invasive species Pollination	Almond Board of California Better Cotton Initiative Certified California Sustainable Winegrowing Cool Farm Tool Field to Market Fieldprint Platform High Conservation Value Resource Network Natural Resource Conservation Service (NRCS) Rainforest Alliance Standard for Sustainable Cattle Production Systems Roundtable on Sustainable Palm Oil Certification (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Stewardship Index for Specialty Crops (SISC) Sustainable Food Trade Association The HCS Approach Toolkit Waterbird Habitat Enhancement Program	Deforestation and Land Conversion Honey Bee Decline
Climate change preparedness	Adaptation Mitigation Planning Resilience	Food and Agriculture Organisation Resilience Index IPCC Fifth Assessment Report Palmer Drought Severity Index USDA WBCSD Climate Smart Agriculture	
Economic viability	Absentee landowners Business management Farm succession Profitability Risk management	Almond Board of California Fair Trade Agricultural Production Standard (APS) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine	

[3] The programs and tools listed here were identified by project participants, are not exhaustive, and have not been vetted (and are therefore not endorsed) by TSC

Framework Part 2: Sustainability Issue Framework and Supporting Resources (continued)

Sustainability Issues	Specific Issues	Programs and Tools	TSC KPIs
Greenhouse gas emissions	Energy consumption Enteric methane Land use change Manure management Soil carbon	Almond Board of California Canadian Field Print Initiative Certified California Sustainable Winegrowing Cool Farm Tool Field to Market Platform GlobalG.A.P. IPCC Fifth Assessment Report. Potato Sustainability Initiative Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Stewardship Index for Specialty Crops (SISC) Sustainable Food Trade Association	Greenhouse Gas Emissions Intensity Fertilizer Application Transportation to Retailers
Labor rights	Child and forced labor Discrimination (incl. gender) Freedom of association & collective bargaining Grievance procedures Harassment Migrant workers Working hours, wages, & benefits	Almond Board of California Better Cotton Initiative Business Social Compliance Initiative Countries' Risk Classification Fair Trade Agricultural Production Standard (APS) GlobalG.A.P. Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) SA8000 Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Sustainable Food Trade Association U.S. Soybean Sustainability Assurance Protocol (SSAP)	Child and Forced Labor Use Labor Rights
Land use	Carbon sequestration Deforestation Habitat/land conversion Land rights	Almond Board of California Canadian Field Print Initiative Certified California Sustainable Winegrowing Field to Market Platform High Conservation Value Resource Network Landmark Global Platform of Indigenous and Community Lands- Beta Natural Resource Conservation Service (NRCS) Rainforest Alliance Standard for Sustainable Cattle Production Systems Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Sustainable Food Trade Association The HCS Approach Toolkit	Deforestation and Land Conversion Indigenous Peoples' and Community Rights Yield

Framework Part 2: Sustainability Issue Framework and Supporting Resources (continued)

Sustainability Issues	Specific Issues	Programs and Tools	TSC KPIs
Nutrient management	Nutrient management plan Soil testing Water quality	Almond Board of California Better Cotton Initiative Canadian Field Print Initiative Certified Sustainable Wine Cool Farm Tool Field to Market Platform GlobalG.A.P. Natural Resource Conservation Service (NRCS) Potato Sustainability Initiative Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Stewardship Index for Specialty Crops (SISC) The 4R Plant Nutrition Manual USDA: Comprehensive Nutrient Management Plan (CNMP) U.S. Soybean Sustainability Assurance Protocol (SSAP)	Fertilizer Application
Pest management	Integrated pest management Maximum residue levels Pesticide drift Product stewardship & use	Almond Board of California Better Cotton Initiative Certified Sustainable Wine Fair Trade Agricultural Production Standard (APS) Field to Market Fieldprint Platform (input data) GlobalG.A.P. Natural Resource Conservation Service (NRCS) Potato Sustainability Initiative Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine U.S. Soybean Sustainability Assurance Protocol (SSAP)	Pesticide Application Worker Health & Safety
Product quality and safety	Adulteration Allergens Contamination	Better Cotton Initiative GlobalG.A.P. Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA)	Postmarket Surveillance and Vigilance Product Quality and Safety

Framework Part 2: Sustainability Issue Framework and Supporting Resources (continued)

Sustainability Issues	Specific Issues	Programs and Tools	TSC KPIs
Smallholders	Access to market & services Bargaining power Productivity Training and ag practices	Fair Trade Agricultural Production Standard (APS) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA)	Access to Opportunities for Smallholder Farmers
Soil management	Cover crops (farm level health) Crop rotation (farm level health) Crop-livestock integration (farm level health) Soil carbon (field level health) Soil erosion (field level health) Soil quality Tillage	Better Cotton Initiative Canadian Field Print Initiative Certified California Sustainable Winegrowing Cool Farm Tool Field to Market Platform GlobalG.A.P. Natural Resource Conservation Service (NRCS) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) Stewardship Index for Specialty Crops (SISC) USDA RUSLE2 USDA WEPS	Soil Erosion
Supply chain transparency	Data access and security Risk management Supplier mapping	Certified California Sustainable Winegrowing Cool Farm Tool Field to Market Platform GlobalG.A.P. Potato Sustainability Initiative Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) Stewardship Index for Specialty Crops (SISC) Sustainable Food Trade Association The Sustainability Consortium's Commodity Mapping Tool	Crop Supply Mapping
Waste management	Food waste Hazardous waste Packaging Recycling Wastewater generation	Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) Sustainable Food Trade Association	Food Loss and Waste Generation Packaging Raw Material Sourcing Sustainable Packaging Design Wastewater Generation

Framework Part 2: Sustainability Issue Framework and Supporting Resources (continued)

Sustainability Issues	Specific Issues	Programs and Tools	TSC KPIs
Water management	Water quality Water risk mapping Water use efficiency Watershed engagement	Almond Board of California Better Cotton Initiative Certified California Sustainable Winegrowing Field to Market Fieldprint Platform GlobalG.A.P. Natural Resource Conservation Service (NRCS) Potato Sustainability Initiative Roundtable on Sustainable Palm Oil Certif ication (RSPO) Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) SIP Certified Wine Sustainable Food Trade Association Stewardship Index for Specialty Crops (SISC)	Irrigation Water Use Intensity
Worker health and safety	Access to personal protective equipment Access to water and sanitation services Illness and injury rate Labor shortage/ contract oversight Worker health and safety training	Almond Board of California Better Cotton Initiative Business Social Compliance Initiative Countries' Risk Classification Certified California Sustainable Winegrowing Fair Trade Agricultural Production Standard (APS) GlobalG.A.P. Potato Sustainability Initiative Round Table on Responsible Soy (RTRS) Roundtable on Sustainable Palm Oil Certification (RSPO) SA8000 Sustainable Agriculture Initiative Farm Sustainability Assessment (SAI-FSA) Sustainable Food Trade Association U.S. Soybean Sustainability Assurance Protocol (SSAP)	Worker Health & Safety

Framework Part 3A: Example Guidelines to Address Sustainability Topics in Supplier Codes

Sustainability Topic	Example Guideline
Animal welfare	If applicable to the suppliers' industry, animal testing will be minimized and alternatives will be used whenever possible, scientifically valid, and acceptable to regulators. (Bayer)
Biodiversity	Suppliers are expected to minimize their impact on biodiversity, climate change, and water scarcity. (BASF)
Business integrity and ethics	Suppliers will not offer or accept bribes or other unlawful incentives to/from their business partners. (Bayer)
Compliance and verification	Suppliers are expected to develop adequate documentation to demonstrate that they share the principles and values expressed in this Supplier Code of Conduct. (Bayer)
Environmental protection	Suppliers are expected to use resources efficiently; apply energy-efficient, environmentally friendly technologies; and reduce waste, as well as emissions to air, water and soil. (BASF)
Information security	Suppliers are expected to comply with all contractual obligations regarding confidentiality and otherwise to protect confidential and proprietary information from unauthorized use. (Monsanto)
Labor rights	Suppliers will not use child or forced labor, slavery, or human trafficking. (DuPont) All employees of the Supplier must receive a wage no less than the national minimum wage. (Syngenta) Suppliers will respect employees' lawful right of free association, as well as their lawful right to join, form, or not to join a labor union or otherwise engage in collective bargaining. (Dow)
Legal compliance	Suppliers will comply with all laws and regulations. (DuPont)
Product quality and safety	Suppliers are expected to deliver high quality products and services that meet or exceed applicable laws and regulations as well as contractual requirements and standards. (Monsanto)
Worker health and safety	The Supplier shall ensure that all employees work in a safe environment at all premises under the Supplier's control. (Syngenta)

Framework Part 3B: Example Guidelines to Address Sustainability Topics in Supplier Codes

Sustainability Topic	Example Guideline
Animal welfare	Supply partners are expected to use humane procedures and sound animal husbandry practices designed to prevent the mistreatment of animals. (Tyson)
Business integrity and ethics	Suppliers must maintain and enforce company policies requiring adherence to lawful business practices, including a prohibition against bribery of government officials. (JBS)
Compliance and verification	[Company] reserves the right to audit supplier facilities following a reasonable request. (Smithfield)
Environmental protection	Suppliers are expected to proactively reduce their environmental impact and assisting [company] facilities in meeting environmental objectives and targets whenever possible. (Smithfield)
Information security	Suppliers must respect the intellectual and other property rights of others. (JBS)
Labor rights	Supply partners are expected to commit to observing fair labor practices and to treat employees with dignity and respect. (Tyson) Suppliers must respect the rights of employees to freely associate, organize, and bargain collectively. (Smithfield)
Legal compliance	Supply partners are expected to comply with all applicable environmental, health, and safety laws, regulations, and standards. (Tyson)
Product quality and safety	Supply partners are expected to consider the safety and quality of [company] products to be of paramount importance and to comply with government and company food safety requirements and specifications at all times. (Tyson)
Worker health and safety	Suppliers must provide workers with a workplace that meets applicable health and safety standards. (JBS)

Framework Part 3C: Example Guidelines to Address Sustainability Topics in Supplier Codes of Conduct - Commodity Suppliers

Sustainability Topic	Example Guideline
Business integrity and ethics	Suppliers must at all times comply with the U.S. Foreign Corrupt Practices Act as well as all local anti-corruption laws prohibiting commercial and governmental bribery. (ADM)
Compliance and verification	Each supplier must permit [commodity company] and its designees (including third party auditors and customers), upon reasonable advance notice, to audit and inspect the facilities used to manufacture product or material for [commodity company] and/or provide services to [commodity company]. (Cargill)
Information security	Suppliers are expected to secure and safeguard confidential information they obtain as part of the business relationship. (ADM)
Labor rights	Suppliers must adhere to laws related to working hours, wages, human trafficking, and the prevention of child labor and forced labor. (ADM)
Legal compliance	Suppliers are expected to comply with applicable trade sanctions laws and regulations in which it conducts business. (ADM)
Product quality and safety	Suppliers must have measures in place to reduce the chances of intentional contamination of the human food/animal food/feed supply. (Cargill)
Supply chain transparency	Suppliers must develop a system for the identification of the supply chain for each of their products. (Cargill)

Framework Part 3D: Example Guidelines to Address Sustainability Topics in Supplier Codes of Conduct - Food / CPG Companies

Sustainability Topic	Example Guideline
Animal welfare	Direct physical abuse of animals is prohibited. This includes using excessive physical force on animals or deliberately causing pain or injury. (Unilever) U.S. suppliers should support the judicious use of antibiotics. Animals that become sick shall be provided care and oversight by a local veterinarian in an attempt to bring back to health. (Hershey)
Biodiversity	The hunting, fishing or gathering of rare, threatened or endangered species on the farm is prohibited. (Unilever)
Business integrity and ethics	Supplier conducts its business in accordance with the highest standards of ethical behavior and in accordance with all applicable laws and regulations. (Mars)
Compliance and verification	Suppliers must be able to demonstrate compliance with the Code of Conduct upon request. [Company] reserves the right to terminate any agreement or arrangement if compliance with the Code cannot be demonstrated. (General Mills)
Environmental protection	Suppliers should reduce waste and usage of all types by implementing appropriate conservation measures in their operations. Improvement plans for waste reduction, recycling, energy conservation, and greenhouse gas mitigation policies should be in place, along with demonstrable evidence of implementation. (Hershey) Suppliers must strive to reduce or optimize their use of energy, water, and agricultural inputs; reduce greenhouse gas emissions; and minimize water pollution and waste including food waste and landfill usage. (Kellogg's)
Information security	Suppliers are expected to safeguard [company's] confidential information by keeping it secure. (Post)
Labor rights	Suppliers will not use involuntary labor or require payment of fees or the surrendering of identification as a condition of employment. All employees will understand the terms of their employment. (General Mills)
Land acquisition and use	The conversion of High Conservation Value/High Ecological Value/high carbon stock areas (forests, grasslands or wetlands) to farmland is prohibited. (Unilever)
Legal compliance	Supplier complies with the legal requirements and standards of its industry under all applicable laws. (Mars) Suppliers must comply with all applicable environmental laws, regulations, and operating permits. (Kellogg's)
Product quality and safety	Suppliers are expected to consider the safety and quality of [company] products to be of paramount importance and to comply with government and company food safety requirements and specifications at all times. (Post) Suppliers must provide [company] with high-quality products, ingredients, and services that meet all applicable quality and food safety standards. (Kellogg's)
Supply chain traceability	Suppliers must be capable of disclosing potential sources of primary origin associated with the products or services provided to [company]. (General Mills)
Worker health and safety	Suppliers must provide employees with a safe and healthy working environment for all employees that includes appropriate controls, safety procedures, preventative maintenance, and protective equipment. (Hershey) Operators shall only handle or apply CPPs if they have received basic training in how to protect themselves, their family, bystanders, the local community, and the environment from harm. (Unilever)

7. References

ADM Supplier Expectations

https://s3-us-west-2.amazonaws.com/adms3/Our-Company/Procurement/SupplierExpectations.pdf

BASF Supplier Code of Conduct

https://www.basf.com/documents/corp/en/about-us/suppliers-and-partners/download-center/Supplier_Code_of_Conduct_English.pdf

Bayer Supplier Code of Conduct

https://www.bayer.com/downloads/supplier-code-of-conduct-englisch.pdfx

Bunge Code of Conduct (2014)

http://www.bunge.com/sites/default/files/code-of-conduct-eng.pdf

Cargill Supplier and External Manufacturing Requirements Manual (2014)

https://www.cargill.com/doc/1432082204414/sem-requirements-manual-en.pdf

Dow Supplier Code of Conduct

http://www.dow.com/-/media/dow/business-units/dow-us/pdf/code_bus_conduct_suppliers.ashx

DuPont Supplier Code of Conduct (2016)

http://www.dupont.com/content/dam/assets/corporate-functions/our-approach/sustainability/Supplier Code of Conduct_Jan 2016.pdf

General Mills Supplier Code of Conduct

https://www.generalmills.com/Responsibility/ethics-and-integrity/supplier-code-of-conduct

Institute for Supply Management Principles and Standards of Ethical Supply Management Conduct (adopted by Dean Foods, 2008)

http://www.deanfoods.com/media/44975/principlesandstandardsofethicalsupplymanagementconduct.pdf

Institute for Supply Management Principles of Sustainability and Social Responsibility (adopted by Dean Foods, 2008)

http://www.deanfoods.com/media/45003/principlessustainabilitysocialresponsibility.pdf

Kellogg's Supplier Code of Conduct (2014)

https://www.kelloggcompany.com/content/dam/kelloggcompanyus/PDF/Kellogg_Company_Global_Supplier_Code_of_Conduct_January_2014.pdf

MARS Supplier Code of Conduct (2014)

http://www.mars.com/docs/default-source/Policies-and-Practices/supplier-code-of-conduct/supplier-code-of-conduct-english.pdf?sfvrsn=4

Minimum Requirements for Suppliers to Syngenta

https://www4.syngenta.com/~/media/Files/S/Syngenta/documents/syngenta-minimum-requirements-for-suppliers.pdf

Monsanto Supplier Code of Conduct

http://www.monsanto.com/sitecollectiondocuments/supplier-code-of-conduct-procurement.pdf

Post Holdings Supplier Code of Conduct

https://www.postholdings.com/sites/postholdings2016/files/Supplier%20Code%20of%20Conduct.pdf

Responsibilities of JBS Global Inc. Suppliers

http://www.jbsglobalinc.com/codes.htm#cs

Smithfield Foods Supplier Code of Conduct

http://www.smithfieldfoods.com/our-policies-and-disclosures/supplier-conduct

The Hershey Company Supplier Code of Conduct

https://www.thehersheycompany.com/content/dam/corporate-us/documents/partners-and-suppliers/supplier-code-of-conduct.pdf

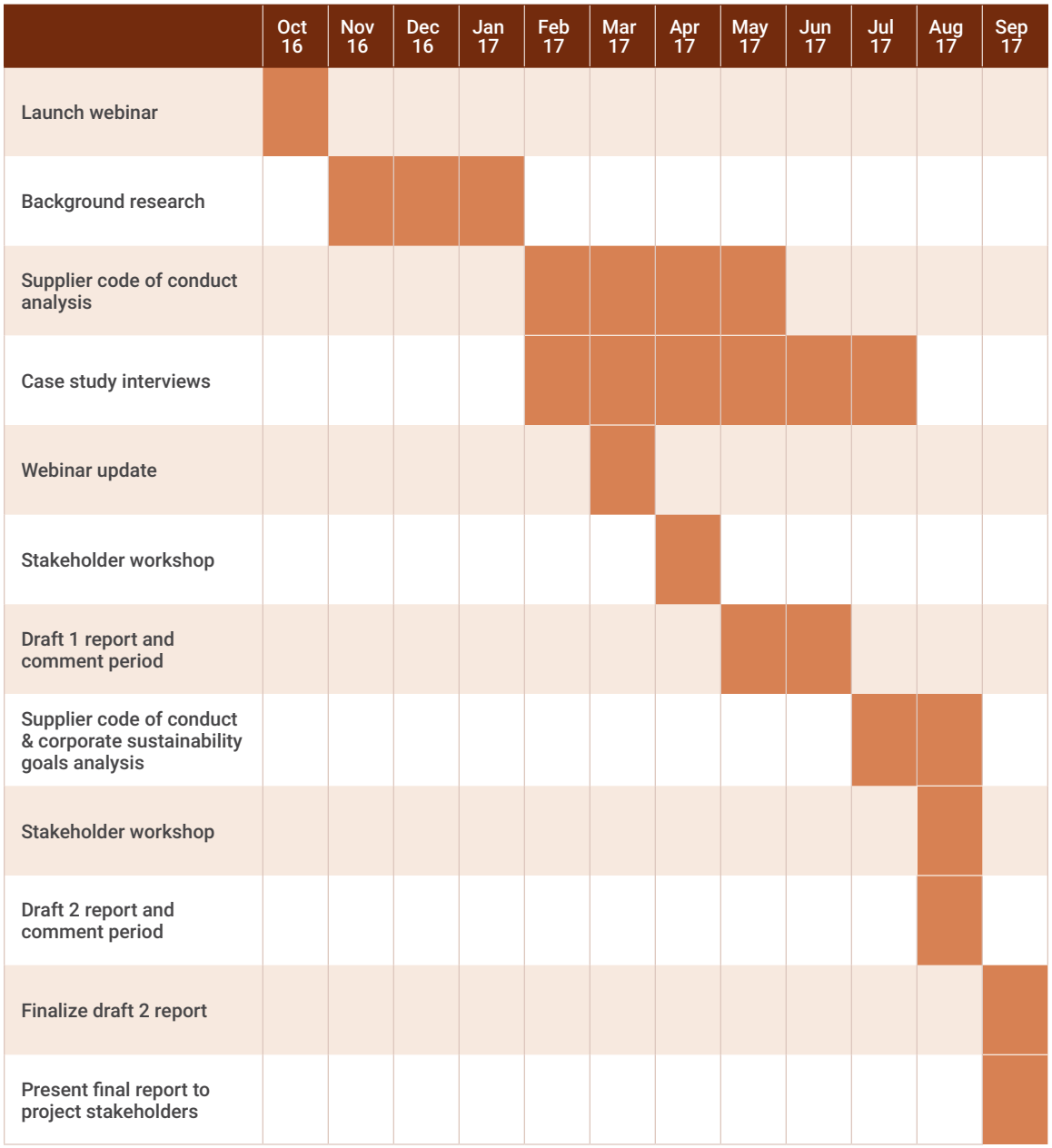
Tyson Foods Supplier Code of Conduct (2012)

Unilever Sustainable Agriculture Code (2015)

https://www.unilever.com/Images/sac-2015_tcm244-427050_en.pdf

8. Appendices

Appendix A: Project Timeline



Appendix B: Project Participants

TSC thanks the following companies and organizations for attending webinars and workshops related to this project, participating in case study interviews, and providing valuable feedback:

Agrible
Agrinos
American Chemistry Council
Animal Agriculture Alliance
Arizona State University
ASR Group
BASF *
Bayer *
Bunge Ltd. *
California Sustainable Winegrowing Alliance
Campbell's Soup *
Carbon Disclosure Project
Cargill North America *
Cary Institute of Ecosystem Studies
CCL Branding
Charoen Pokphand Foods PCL
Clean Energy
Clorox/Burt's Bees
Conservation International
Cool Farm Alliance
Cotton Incorporated
Dartmouth College
Dean Foods *
Dow
E. & J. Gallo Winery
EcoVadis
Elanco
Environmental Defense Fund
Environmental Protection Agency
Eswaran Brothers Exports (Pvt) Ltd.
Farm Journal Media
Fair Trade USA
Field to Market
General Mills, Inc.
GlobalG.A.P.
Hanes Brands
Harvard Extension School
HSCB Bank USA
JBS
Kellogg's *
Mars, Inc.
Monsanto Company *
National Institute of Standards and Technology
National Pork Board
North Carolina State University
Novozymes North America
NSF International
Organic Valley *
PepsiCo *
Pharmavite *
Post Holdings*
PRè
Pure Strategies
PwC
Ready Pac Foods, Inc.
Redox Chemical
Regenerativa
SAI Platform
SAP
Strategic Conservation Solutions, LLC
Sustainable Business International, LLC
Sustainable Food Lab
Syngenta *
TerraCycle
Tetra Pak
The Nature Conservancy
Triple Bottom Line Commodities
Unilever *
University of Florida
USDA
Walmart
WAP Sustainability Consulting
World Wildlife Fund

* Case study interview participant

Appendix C: Case Study Interview Questions

Every interview TSC conducted was prefaced with the following:

The goal of this project is to understand the purchasing and data collection landscape as it relates to sustainability in commodity crops. Ultimately, we want to understand how data reported to TSC KPIs is collected and reported and what opportunities exist to improve the process.

Questions for Food Manufacturers	
GENERAL	
1.	What types of products do you produce?
CORPORATE GOALS	
2.	What are your corporate sustainability goals around commodities? What projects are you working on to reach those goals?
3.	What are the most important sustainability issues around commodities for your company?
PROCUREMENT	
4.	What is your procurement/buying process for commodities?
5.	Do you use sustainability related "specs" during the purchasing process?
6.	If yes, what are they (e.g., certification, participating in programs such as Field to Market, pesticide residue limits, etc.)?
7.	Would a set of industry-wide "specs" based on sustainability issues be helpful to your commodity procurement process?
FARM DATA COLLECTION	
8.	Do you collect farm- or field-level data? If yes, explain the collection process, what information you collect, why you collect it, and how you use it (e.g., to report to TSC KPIs, for procurement and risk assessment, etc.). Are you using any tools to help with that process?
9.	Who is involved in collecting and reporting farm data for your company? Can you describe the different roles and how they interact?
10.	What software or IT systems do you use to manage farm data?
11.	What communication barriers do you experience that prevent sustainability data from flowing through the ag supply chain (i.e., from field to retail)?
12.	What technological barriers do you experience when collecting and reporting farm data?
13.	What solutions do you envision to help break down these barriers?
14.	What incentivizes the growers you source from to provide sustainability data to you?
15.	Do your procurement "specs" help you to gain transparency into farm-level activities?

Questions for Commodity Suppliers
GENERAL
1. What types of commodities do you produce/source?
CORPORATE GOALS
2. What are the most important sustainability issues around commodities for your company?
3. What are your corporate sustainability goals around commodities? What projects are you working on to reach those goals?
PROCUREMENT
4. What is your procurement/buying process for commodities?
5. Is there a difference in the procurement process for the commodities that go toward your food versus feed supply? Explain.
6. What sustainability specifications do you require for the commodities you produce/purchase? Do these requirements differ for your food versus feed supply?
7. What sustainability specs are your customers asking you to meet? How do you ensure that those specifications are met for the portion of supply you purchase on an open market/do not contract for?
8. How do you communicate sustainability requests from your customers to your growers?
9. Are your customers asking you to report sustainability data for the commodities you provide them?
10. Do you provide sustainability education or training to the growers you contract with?
11. In our interviews, we learned that many food manufacturers have developed sustainability training and auditing programs for the farmers that produce their commodities. However, many food companies also acknowledge having little to no direct contact with these growers. Does your company manage or implement farm-level sustainability programs on behalf of food manufacturers? Do you provide any farm-level auditing services for food manufacturers?
12. Would a set of industry-wide "specs" based on sustainability issues be helpful to your process of procuring and supplying commodities?
FARM DATA COLLECTION
13. Do you collect farm- or field-level data? If yes, explain the collection process, what information you collect, why you collect it, and how you use it (e.g., to report to TSC KPIs, for procurement and risk assessment, to monitor continuous improvement, etc.). Are you using any tools to help with that process?
14. Who is involved in collecting and reporting farm data in your company? Can you describe the different roles and how they interact?
15. What software or IT systems do you use to manage farm data?
16. What communication barriers do you experience that prevent sustainability data from flowing through the ag supply chain (i.e., from field to retail)?
17. What technological barriers do you experience when collecting and reporting farm data? What solutions do you envision to help break down these barriers?
18. In your experience, are there certain types of sustainability data that are easier or more difficult to transmit downstream?
19. What incentivizes the growers you source from to provide sustainability data to you?
20. Do your procurement "specs" help you to gain transparency into farm-level activities?

Questions for Ag Input Providers
GENERAL
1. What types of ag inputs do you produce? For which commodities?
CORPORATE GOALS
2. What are the most important sustainability issues around the production and use of ag inputs for your company?
3. What are your corporate sustainability goals related to the production and use of ag inputs? What projects are you working on to reach those goals?
PROVIDING INPUTS
4. Do you implement any farm-level sustainability programs related to the inputs you provide, such as education or training on proper use?
5. Do you implement any farm-level sustainability programs related to optimal resource use?
6. Do you market any of your products as sustainable? If so, what are the specific sustainability attributes of those products?
7. Are any companies beyond the farm gate asking you to report sustainability data for the agricultural inputs you provide?
8. Would a set of industry-wide "specs" based on sustainability issues be helpful to your production/supply process for ag inputs? Explain.
FARM DATA COLLECTION
9. Do you collect farm- or field-level data? If yes, explain the collection process, what information you collect, why you collect it, and how you use it (e.g., to report to TSC KPIs, to monitor continuous improvement, for risk assessment, etc.). Are you using any tools to help with that process?
10. Who is involved in collecting and reporting farm data in your company? Can you describe the different roles and how they interact?
11. What software or IT systems do you have to manage farm data?
12. What communication barriers do you experience that prevent sustainability data from flowing through the ag supply chain (i.e., from field to retail)?
13. What technological barriers do you experience when collecting and/or reporting farm data? What solutions do you envision to help break down these barriers?
14. In your experience, are there certain types of sustainability data that are easier or more difficult to transmit downstream?
15. What incentivizes the growers you provide inputs to share sustainability data with you?
16. Does the farm data you collect help you to gain transparency into farm-level activities?

Appendix D: Descriptions of Sustainability Programs and Tools Identified in Framework Part 2

Almond Board of California

The California Almond Board website provides several resources for orchard management practices, regulations, research, and sustainability.
www.almondboard.com/growers/Pages/Default.aspx

Better Cotton Initiative

The Better Cotton Initiative offers publically available resources to provided background information on best practices for growing cotton.
http://bettercotton.org/resources/

Business Social Compliance Initiative Countries' Risk Classification

The Business Social Compliance Initiative Countries' Risk Classification classifies countries' risk of social injustice in an effort to assist companies in determining high and low risk for their sourcing and operations.
http://www.bsci-intl.org/news/bsci-supports-improved-working-conditions-risk-classification-list

Canadian Field Print Initiative

The Canadian Fieldprint Initiative develops metrics and tools, including the Field Print Calculator and the Fertilizer Use Survey, that are utilized by the agri-food value chain. The Field Print Calculator is a spreadsheet based tool for farm-level benchmarking against national and regional data. The Fertilizer Use Survey is an effort to collect fertilizer use data to identify strategies to improve farm management across Canada.
http://fieldprint.ca/

Certified Sustainable Wine

The Certified Sustainable Wine program is a third-party certification program developed by the California Sustainable Winegrowing Program (SWP) to increase the sustainability of the California wine industry by promoting the adoption of sustainable practices and ensuring continual improvement.
http://www.sustainablewinegrowing.org/certified-sustainable-winegrowing.php

Cool Farm Tool

The Cool Farm Tool is available globally and calculates greenhouse gas emissions associated with farms, processing facilities, and transportation for many agriculture and livestock products.
http://www.coolfarmtool.org/CoolFarmTool

Fair Trade Agricultural Production Standard (APS)

The Fair Trade Agricultural Production Standard is a set of requirements for agricultural production focusing on income sustainability, community and individual well-being, empowerment, and environmental stewardship.
https://fairtradeusa.org/sites/default/files/wysiwyg/filemanager/APS_Updates_Feb_2017/FTUSA_STD_APS_EN_1.0.0.pdf

Food and Agriculture Organisation (FAO) Resilience Index

The FAO Resilience Index is a model for assessing a household's resilience to food security shocks from natural disasters and other disruptions.
http://www.fao.org/3/a-i4102e.pdf

Field to Market Fieldprint Platform

The Field to Market Fieldprint Platform calculates land use efficiency, soil conservation, irrigation water use efficiency, energy use efficiency, and greenhouse gas emissions for US barley, corn, cotton, potato, rice, soy, sugar beet, and wheat farms. It also provides index scores for soil carbon, water quality, and biodiversity and compares all results to regional, state, and national averages.
www.fieldtomarket.org/platform

GlobalG.A.P.

GLOBALG.A.P. offers farm management certification for crops (fruits and vegetables, flowers and ornamentals, combinable crops, green coffee, and tea); livestock (cattle and sheep, dairy, calf and young beef, pigs, poultry, and turkey); aquaculture; chain of custody; plant propagation material; compound feed manufacturing; and livestock transport. The program also includes a risk assessment for worker health, safety, and welfare, as well as criteria for animal welfare and food safety.
http://www.globalgap.org/uk_en/

High Conservation Value Resource Network

The High Conservation Value Resource Network provides common guidance for identifying, managing, and monitoring High Conservation Value forest areas.
http://www.hcvnetwork.org

Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report

The International Panel on Climate Change's Fifth Assessment Report (AR5) provides information on the scientific, technical, and socio-economic impacts of climate change.
http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml

Landmark Indigenous and Community Land Maps

Landmark is a platform that provides maps of indigenous and community lands at the community and national levels. Currently under development, the platform intends to provide critical information and maps to local peoples for the purpose of protecting and maintaining land tenure. Governments, companies, investors, development assistance agencies, researchers, and civil society are other targeted users of the platform.

http://www.landmarkmap.org/

Natural Resource Conservation Service (NRCS)

The USDA Natural Resource Conservation Program (NRCS) program offers resources, consultation, and funding for agricultural management practices that benefit natural resources.

https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/

Palmer Drought Severity Index

The Palmer Drought Severity Index estimates dryness with existing precipitation and temperature data and identifies long-term drought areas. This website provides information, guidance, metadata, and references for the model.

https://climatedataguide.ucar.edu/climate-data/palmer-drought-severity-index-pdsi

Potato Sustainability Initiative

The Potato Sustainability Initiative consists of an Integrated Pest Management (IPM) survey and a set of metrics that address greenhouse gas emissions, irrigation use, nutrient use, pesticides, waste and recycling, and worker health and safety for use in potato production systems.

https://psi.foodlogiq.com/

Rainforest Alliance Standard for Sustainable Cattle Production Systems

The purpose of the Rainforest Alliance Standard for Sustainable Cattle Production Systems is to reduce the carbon footprint of cattle production systems through conservation and other practices.

http://www.rainforest-alliance.org/agriculture/crops/cattle

Round Table on Responsible Soy (RTRS)

The Round Table on Responsible Soy (RTRS) is a multi-stakeholder initiative that has developed a certification scheme that requires implementation of sustainable production principles and criteria encompassing several sustainability issues associated with soy production. These criteria include land conversion, deforestation, pesticide and fertilizers application, forced and child labor use, labor rights and worker health and safety.

http://www.responsiblesoy.org/

Roundtable on Sustainable Palm Oil Certification (RSPO)

The Roundtable on Sustainable Palm Oil (RSPO) certification is a seal of approval that ensures traceability in palm oil supply chains by certifying each facility that processes or uses it. RSPO was founded on and supports principles for palm oil production including transparency, regulatory compliance, financial viability, natural resource conservation, and continuous improvement.
http://www.rspo.org/about

SA8000

The Social Accountability International SA8000 Standard is a human rights standard that can be used for audits of workplaces across industries. It is based on principles developed by the United Nations Declaration on Human Rights and the Conventions of the International Labour Organization.
http://www.sa-intl.org/index.cfm?fuseaction=Page.ViewPage&pageId=937

SAI Farm Sustainability Assessment

The Sustainable Agriculture Initiative (SAI) Platform's Farm Sustainability Assessment (FSA) is a tool that assesses farm environmental, social, and economic sustainability. The FSA is based on SAI Platform's Principles and Practices for sustainable agriculture and can be used by farmers as a benchmarking tool for comparing various certification schemes and proprietary codes. Proprietary codes FSA23-FSA29 provide requirements for nutrient management planning.
http://www.fsatool.com/

SIP Certified Wine

The SIP Certified Wine certification program covers key sustainability issues in winegrape growing.
http://www.sipcertified.org/

Stewardship Index for Specialty Crops (SISC)

The Stewardship Index for Specialty Crops (SISC) provides guidance for calculating irrigation water use, energy use, nitrogen use, phosphorus surplus, and soil organic matter on U.S. specialty crop farms.
http://www.stewardshipindex.org/metrics.php

SupplyShift

SupplyShift is a supply chain data management platform that allows companies to track responsible sourcing targets, risk management, product and material supplier traceability, certification requirements, compliance information, and supply chain performance assessment.
https://www.supplyshift.net/

Sustainable Food Trade Association

The Sustainable Food Trade Association aims to build the capacity of organic businesses by offering consultation, training, resources, and a sustainability self-assessment.

http://www.sustainablefoodtrade.org/

The 4R Plant Nutrition Manual

The 4R Plant Nutrition Manual describes the scientific basis behind each of the four "rights" to plant nutrition and discusses proper plant nutrition practices on the farm, at various production scales and for numerous crop types, based on the 4R principles. The manual also describes approaches to comprehensive nutrient management planning that addresses sustainability criteria.

http://www.ipni.net/4R

The HCS Approach Toolkit

The High Carbon Stock (HCS) Approach Toolkit takes practitioners through the steps in identifying HCS forest, from initial stratification of the vegetation using satellite images and field plots, through a decision tree process to assess the conservation value of the HCS forest patches in the landscape and ensure communities' rights and livelihoods are respected, to making the final conservation and land use map.

http://highcarbonstock.org/the-hcs-approach-toolkit/

The Sustainability Consortium (TSC) Commodity Mapping Tool

TSC's Commodity Mapping Tool helps businesses identify the location and hotspot risks in commodity sourcing regions. The tool offers visualization of data through maps and connects to survey questions about sustainability hotspots. The questions can be used in the supply chain to understand if the risks are material based on supplier performance.

https://www.sustainabilityconsortium.org/projects/commodity-mapping/

U.S. Soybean Sustainability Assurance Protocol (SSAP)

The U.S. Soybean Sustainability Assurance Protocol (SSAP) is a multi-stakeholder initiative that has developed a certification scheme that requires implementation of sustainable production principles and criteria encompassing several sustainability issues associated with soy production.

http://ussec.org/wp-content/uploads/2016/03/
U.S.-Soybean-Sustainability-Assurance-Protocol-March-2016.pdf

USDA RUSLE2

The Revised Universal Soil Loss Equation, Version 2 (RUSLE2) is a tool developed by the United States Department of Agriculture (USDA) for calculating soil erosion. Although it was developed by the USDA, RUSLE2 is commonly used outside of the US.

http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm

USDA WEPS

The Wind Erosion Prediction System (WEPS) is a tool developed by the United States Department of Agriculture (USDA) to estimate the risk of soil erosion by wind. Although it was developed by the USDA, WEPS is adaptable to regions outside of the U.S.

http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/tools/weps

USDA: Comprehensive Nutrient Management Plan (CNMP)

The USDA's Comprehensive Nutrient Management Plan website offers planning tools, templates, resources, nutrient management tools, quality assurance documents and technical criteria for CNMPs.

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/wi/farmerrancher/?cid=nrcs142p2_020843

Waterbird Habitat Enhancement Program

The Waterbird Habitat Enhancement Program is funded by the USDA NRCS and aims to preserve and restore waterbird habitat on 100,000 acres of rice fields in California. The serves as a model for wildlife habitat management on working agricultural lands.

http://calrice.org/pdf/waterbirdhabitatbro_web.pdf

World Business Council for Sustainable Development (WBCSD) Climate Smart Agriculture

The WBSCD Climate Smart Agriculture program is conducting a series of pilot projects aimed at building farmer resilience, scaling up Community Supported Agriculture (CSA), and creating a CSA measurement protocol.

http://www.wbcsd.org/Projects/Climate-Smart-Agriculture

Appendix E: Summary of Webinars and Workshops

October 24, 2016: Sustainable Commodities Project Launch (webinar)

Topic: Project launch

Slide deck available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/Sustainable%20Commodities%20Project%20Launch_Oct%2024,%202016.pdf

March 7, 2017: Sustainable Commodities Project Update (webinar)

Topic: Review preliminary findings from case study interviews and code of conduct analysis

Slide deck available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/Sustainable%20Commodities%20Project%20Update%20Deck_Mar%207_2017.pdf

Notes available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/Sustainable%20Commodities%20Project%20Update_Notes_Mar%207%202017.pdf

April 11, 2017: Sustainable Commodities Project Workshop 1

Topic: Review findings from case study interviews and code of conduct analysis, present draft code of conduct framework, and develop code of conduct guidelines

Slide deck available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/Sustainable%20Commodities%20Project%20Workshop%20Deck_TSC%20Summit%202017.pdf

Notes available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/Sustainable%20Commodities%20Project%20Workshop%20Notes_TSC%20Summit%202017.pdf

June 1, 2017: Sustainable Commodities Project Update - Draft 1 (webinar)

Topic: Review Draft 1 of report

August 9, 2017: Sustainable Commodities Project Workshop 2

Topic: Identify additional programs and tools for Framework Part 2, gather feedback on corporate sustainability goal and supplier code of conduct analysis

Slide deck available at:
http://tscmembers.org/amtf/cscp/Working%20Documents/August%209_Sustainable%20Commodities%20Project%20Workshop%20Deck.pdf

September 21, 2017: Sustainable Commodities Project Update – Final Report Presentation

Sustainable Products
for a Sustainable Planet

www.sustainabilityconsortium.org