

Measurement Matters:

A Sustainability Framework for the U.S. Dairy Industry



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About the Innovation Center for U.S. Dairy®

The Innovation Center for U.S. Dairy® was established in 2008 under the leadership of America's dairy farmers through Dairy Management Inc.™ (DMI). Its Board of Directors comprises 32 leaders representing 30 key U.S. producer organizations, dairy cooperatives, processors, manufacturers and brands. The Board, which meets twice a year, has six operating committees that represent strategic focus areas — Sustainability, Health and Wellness, Research and Insights, Food Safety, Consumer Confidence and Globalization.

The Innovation Center provides a forum for the dairy industry to work together pre-competitively to address barriers and opportunities to foster innovation and increase sales. The Innovation Center aligns the collective resources of the U.S. dairy industry to offer consumers nutritious dairy products and ingredients, and promote the health of people, communities, the planet and the industry.

More than 250 representatives from the dairy industry, academia, government and nongovernmental organizations attended the U.S. Dairy Sustainability Summit to focus on opportunities to build business value and reduce greenhouse gas (GHG) emissions across the dairy supply chain. The outcome of the summit was a shared sustainability vision, guiding principles and a voluntary, industrywide goal to reduce GHG for fluid milk by 25 percent by the year 2020, using a 2007/2008 baseline.

The Sustainability Council gives strategic direction to the Innovation Center's sustainability work. This multistakeholder governing body is composed of nearly 60 organizations across the dairy value chain. The Council meets several times a year to review sustainability initiatives and track progress toward goals.

Through the Council, the Innovation Center has launched a portfolio of projects and is developing decision-support tools that can help farms and organizations across the value chain to measure, report and communicate sustainability topics. On-farm projects focus on reducing the impact of crop production and enteric emissions, developing manure management best practices, improving energy management, and researching, analyzing and identifying opportunities to improve water usage and other sustainability topics. Beyond the farm projects focus on energy management in dairy processing, packaging and distribution. All of these projects focus on bringing science to the decision-makers in the form of practical tools. In 2011, more than 800 people were actively involved.

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Introduction

The Sustainability Council of the Innovation Center for U.S. Dairy's vision is for all stakeholders to work together to develop and implement a shared Sustainability Measurement and Reporting Framework that can be used throughout the dairy supply chain. A Sustainability Framework that is flexible enough to reflect the range of dairy systems and the realities of regional production. A framework that is rooted in an international context while avoiding cost burdens that undermine price competitiveness.

The various segments of the food industry are working together to find sustainable approaches to producing and processing food, and to identify what and how to measure so that baseline impacts can be understood and continuous improvements documented. Wherever agriculture is practiced, it's essential to understand how it impacts the planet, economy and society. Measuring the impact for dairy isn't easy. It includes many complex and interlinked topics such as greenhouse gas (GHG) emissions, water conservation, pollution prevention, animal well-being and the livelihoods of people.

These topics must be measured, in order to know if and how much industry management practices and technology favorably impact them. Once the impacts are understood, an even more sustainable dairy supply chain can be realized. The first step in measuring such sustainability categories is determining how to measure them.

As in other agricultural sectors, production techniques in the U.S. dairy industry have changed over the past few decades. Efficiency and productivity have led to fewer cows and farms while milk production has increased. Since 1969, milk production per cow in the U.S. has increased 280 lbs. per year. Improved breeding contributed 58 percent to the increase in milk productivity (additional 7,728 lbs. per cow). Management and technology, including better practices regarding cow comfort, milking and state-of-the-art equipment, contributed a further 42 percent (additional 5,553 lbs. per cow). The U.S. dairy industry now produces a gallon of milk using 90 percent less land, 65 percent less water, 75 percent less manure and has a 63 percent smaller carbon footprint.^{1,2} There is a similar trend in the supply chain with fewer, more efficient companies buying, processing and selling milk and milk products.

The U.S. dairy industry's overarching goal is to provide consumers with the nutritious dairy products they want in a manner that is economically sound and environmentally and socially sensitive. It is continuously working to produce and process milk in sustainable ways at a time when there are more technology, research and information resources available than ever before. This increasingly supports the industry to better estimate and measure its relationship with the environment, its impact on communities and its economic sustainability. However, in order to capture the advantages that these tools and resources offer, the industry must be strategic and deliberate in how it uses them to develop credible measurement tools.

Business leaders throughout the dairy value chain agree that such tools are to be developed through collaboration. Convened by the Innovation Center for U.S. Dairy, more than 60 organizations have formed a multistakeholder Sustainability Council comprised of dairy farmers, trade associations, government, brand manufacturers, retailers, dairy farm co-operatives, equipment manufacturers, academics and representatives from civil society. Their U.S. Dairy Sustainability Commitment has resulted in projects that are estimated to reduce GHG emissions by nearly 11 percent and increase business value by \$238 million³ (based on 2008 dollars) across the dairy supply chain by 2020.

The industry is working together toward a harmonized approach for measurement that is developed together with its stakeholders in a balanced, gradual way, from farm to table, building from our strong foundations of industry collaborations. We do this because we believe that by working together we can learn, share, test and together identify what really matters, what the best ways of measuring are, and where to focus our efforts on improvement along the value chain.

In the main body of this paper, key challenges to developing credible sustainability measurements throughout supply chains are discussed. The paper also describes the steps that the U.S. dairy industry is taking to gradually build a dairy Sustainability Measurement and Reporting Framework that is practical and credible. On page 17, we invite all stakeholders to get involved in creating a more environmentally, economically and socially sustainable U.S. dairy industry by providing feedback on the Sustainability Measurement and Reporting Framework during the public comment period.

In the “What leaders are saying” section of the Appendix, thought leaders from the dairy industry and the measurement arena in general share their viewpoints about measuring sustainability in the dairy industry. The search for robust measurement is not limited to the United States, so you will read the views of experts around the world. These diverse and sometimes conflicting comments are a testament to the challenge before us.

The Appendix also includes a review of various U.S. and global initiatives that are active in the development of sustainability measurement systems and how these are relevant to the U.S. dairy industry.

This paper seeks to generate conversation and collaboration among our stakeholders. Together, by sharing our knowledge and experience, we can deliver the most valuable outcome across the dairy value chain — from dairy producers to consumers:

A sustainable future.

“We commit to being leaders in sustainability, ensuring the health and well-being of our planet, communities, consumers and the industry.”

The vision statement of the Sustainability Council of the Innovation Center for U.S. Dairy®

Sustainability Measurement Landscape

Sustainability measurement and reporting is gaining traction. It is discussed in board rooms and grocery stores. Many universities now offer majors and graduate-level sustainability programs. More than 3,000 organizations in 60 countries measure and disclose GHG emissions and climate change strategy through the Carbon Disclosure Project (CDP).⁴ Nearly 5,000 sustainability reports were published in 2010 worldwide⁵ and 95 percent of the 250 largest companies in the world (G250 companies) now report on their corporate responsibility activities. Research shows that organizations measure and report about sustainability for many different reasons. The reasons range from concern for their reputation to their pursuit of innovation and learning opportunities.⁶ The Dow Jones Sustainability Index has grown to \$10 billion in market capitalization,⁷ and an estimated \$3.07 trillion out of \$25.2 trillion in the U.S. investment marketplace is part of socially responsible investments (SRI).⁸ Measuring for sustainability is becoming a key business driver.

“I think the barriers on measuring sustainability are scientific, political and practical ... We suggest always working in a transparent, multistakeholder process. There isn’t going to be a simple method to measure these things, and it’s not going to be easy to mathematically prove impact. As much as we need to get the science to be able to show impact by observation rather than theory, we also have to be prepared to make some informed deductions.”

Bryan Weech, director, livestock agriculture, World Wildlife Fund, USA

In agriculture, companies realize that the greatest environmental impact often occurs at the beginning of a product’s life cycle. Retailers and food processors promote themselves as sustainability leaders, but to fulfill that goal they must verify the sustainability performance of their own processes and those of their suppliers. Corporations are identifying and developing multiple strategies, scorecards and other tools hoping to improve the sustainability performance of their supply chain. They want to encourage their suppliers to produce sustainably. A consumer research study conducted by The Sustainability Consortium (TSC) shows that supplier codes of conduct are commonly used tools to address responsibility issues within the supply chain.⁹

But companies are now moving beyond codes of conduct and developing their own assessment tools and scorecards for suppliers. Unilever announced that by 2020 it will halve the environmental footprint of its products, help more than 1 billion people improve their health and well-being, and source 100 percent of its agricultural raw materials sustainably. The company developed a Unilever Code of Sustainable Agriculture for suppliers to help reach its goals.¹⁰ PepsiCo is developing global ethical farming standards and using its Responsible and Sustainable Sourcing program to have continued access to key agricultural raw materials necessary to meeting consumer needs while respecting the environment and communities involved in producing those raw materials.^{11,12} Walmart’s Sustainable Produce Index for the top producers in its global food sourcing network focuses on water, energy, fertilizer and pesticide used per unit of food produced. The program provides a simple tool to inform consumers about the sustainability of a product. According to Walmart, by 2015 the program will help small- and mid-sized farmers expand their businesses, get more income for their products and reduce the environmental impact of farming.¹³ The question arises: If every brand has its own scorecard for measuring sources of raw materials, how will the suppliers of these sources actually be measured in a harmonized, consistent way? How do we know how sustainable a supplier is if there are different ways of measuring and evaluating this supplier?

In parallel, companies participate in a broad range of measurement initiatives with the ultimate goal of advancing sustainability. In the food and agriculture industries, various initiatives are developing assessment tools. Some of these programs focus on particular food categories like the Marine Stewardship Council (MSC)¹⁴ and Bonsucro® – *the better sugar cane initiative*.¹⁵ Others focus on assessing sustainability beyond specific food

categories. Examples of these initiatives are: the Ethical Sourcing Code of the SQF Institute,¹⁶ the Sustainable Agriculture Initiative Platform (SAI),¹⁷ The Sustainability Consortium,¹⁸ Sustainable Food Laboratory,¹⁹ Responsible Sourcing from AIM-PROGRESS,²⁰ Sedex,²¹ Global Reporting Initiative,²² Field to Market: The Keystone Alliance for Sustainable Agriculture²³ and Stewardship Index for Specialty Crops.²⁴ See the Appendix for more details on these initiatives and how these are relevant to dairy.

The Innovation Center is actively involved in several measurement initiatives to inform and share our learnings and experiences regarding sustainability in dairy and agriculture, as well as to learn from others, with a goal to collaborate and work toward harmonization. For example, the Innovation Center is a founding member of The Sustainability Consortium and a member of Field to Market, Sustainable Agriculture Initiative and the Sustainable Food Laboratory.

In general, these and other initiatives use two basic approaches to assessing sustainability: outcome- and practice-based. Some use a mix of the two. Outcome-based performance assessments rely on a final number to estimate sustainability; they do not necessarily analyze the path that led to the outcome. Practice-based assessment, on the other hand, identifies the steps and practices taken or applied without necessarily understanding the outcomes of the practices, nor measuring a baseline.

Our studies at the Innovation Center indicate that, in general, assessment tools for agriculture tend to move from outcome-based for the end of the supply chain (beyond the farm) to more practice-based at start of the supply chain (on the farm).

The Challenges With Measurement in Supply Chains

Demand for sustainability information has been driven by the desire to manage risk. Governments, NGOs and other stakeholders want to safeguard society from negative impacts, and therefore want to know how companies and their suppliers manage various impact areas like climate change, pollution control, hazardous waste and work-related issues such as child labor and health and safety. More and more companies require information from suppliers about their production, manufacturing, labor and other practices in order to reduce the risk of negative impacts in their supply chain. Buyers often assess supplier risk based on sometimes proprietary supplier codes of conduct or compliance with a buyer-designated list of best practices and management approaches. In this way, they can be outcome- and/or practice-based. These tools are used to reduce negative environmental and social impacts that can be attributed to the raw materials and the final products produced.

A research study evaluated 117 of these supplier codes of conduct and discovered a convergence of sustainability topics across industry, geography and organization size. The study also showed that people were confused about the intended purpose of supplier codes of conduct. The study stated that “Organizations and managers need to strategically consider their audience and the intent of codes to prevent them from becoming more symbolic than strategic.”⁹

Companies develop their own supplier codes based on existing prescriptive codes. As a result, supplier codes typically address similar topics but differ in formats, information points and methodologies, creating redundant, buyer-specific surveys and information requests that take considerable time and resources to complete. In addition, many of the codes and surveys claim global application but reference practices that are irrelevant to businesses and farms in the United States or in other specific geographies.²⁵

A harmonized approach is needed to improve supply chain and product sustainability measuring and reporting.

Such an effective and practical approach should be founded on scientific evidence, including life cycle assessment (LCA)-based measurement and reporting models. For dairy, this means it must be built by stakeholders with expertise and knowledge about applied science; how businesses work across the dairy supply chain; agriculture; biological systems; and dairy producers. Once the comprehensive model is built, companies and stakeholders must work together to apply the model throughout the supply chain. This allows a common path forward that accelerates the development of product-specific assessment models.

“The greater the harmonization across initiatives, the more efficiently initiatives can be implemented and results be compared.”

Jed Davis
Cabot Creamery, USA

The science and methods for measuring the sustainability of products, including their environmental, social and economic impacts, are still under development. The Innovation Center plays a leading role in developing practical, science-based measurement models for U.S. dairy through science-based research, identification of innovation opportunities, and development of measurement methods and models by serving as a platform that brings together sustainability measurement experts, dairy businesses, supply chain experts and other stakeholders.

To make our approach internationally applicable and relevant, we have worked with the International Dairy Federation and the Food and Agriculture Organization of the United Nations (FAO) to develop a common LCA methodology and a comparable baseline for dairy globally.

Through this industrywide approach, the Innovation Center is supporting the development of a scientific LCA-based Sustainability Measurement and Reporting System (SMRS)²⁶ for consumer products by The Sustainability Consortium. The TSC’s SMRS system is being developed to help supply chains understand their primary impact areas and opportunities for improvement. If successful, the SMRS could potentially synchronize the multiple assessment tools that suppliers receive. Companies can then use the SMRS systems to focus their supplier questionnaires. The tool can help companies analyze their sustainability impacts to identify areas most important to improve. In combination with the SMRS, businesses throughout supply chains can use the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines to report their individual sustainability performance and strategies for improvement, including impacts at the product level, to their buyers and other interested stakeholders and report to the Carbon Disclosure Project about their GHG emissions.

Involving dairy producers

Because of the chemical and biological processes that take place when air, soil, water, nutrients and other elements interact, 80 percent of environmental impacts occur before agricultural products leave the farm. This presents a big challenge for measurement initiatives, and makes input from the dairy producer very important. The producer is the only one who knows and can record the information needed to assess the impact of farming practices. However, farmers have been largely excluded from the development of scorecards and assessment tools developed by most initiatives. In many cases, assumptions about production practices and inputs have been made without firsthand farmer involvement and input. Farmers should be involved in the discussion because they are the ones needing to bring feasible and practical change. Because food companies want to know the impacts that raw agricultural products have on the sustainability of the final, processed food product, it is critical that farmers participate in identifying which impacts to measure and how to manage them.

The Challenges With Measurement at the Farm Level

Universal agreement on what defines sustainability at the farm level has not been achieved, although some topics, baselines and ranges have been identified as proxies for sustainability. Regardless of a lack of general consensus about what the precise definition of sustainability is at the farm level, we do know that there are many factors that affect the environmental performance of a farm. There are different ways in which the environmental performance on a farm can be assessed and estimated, ranging from strict outcome-based performance assessments, practice-based assessments, a combination of the two, or process-based models.

Process-based models are models that replicate flows of chemical, biological and physical processes that are observed in natural environmental systems. It is based on knowledge around interactions of elements and sequences of natural process steps. It can be used to estimate environmental impacts of various practices, and support in estimating outcomes.

Biological systems, with their complex interactions of a broad range of variables, make it harder to standardize a list of general practices that can be applied across the board for various crops and farming systems across various geographical regions. Care should be taken when assessing the usefulness of particular practices for dairy. The dairy farm operational system should be analyzed against its contextual elements like geography, water availability, climate and soil types.

Whichever approach is taken, the key to assessing at the farm level is to take into account the diverse and complex factors involved in dairy farming. For example, when assessing the impact of a farm on a particular water body, a variable that may impact that body of water is the nutrient runoff from the bordering farm fields. The application of fertilizer to those fields creates the potential for nutrients to move off the field and into the body of water. A heavy rain on a steeply sloping field can cause fertilizer runoff, while a light rain on a flat field may not.

What is the best way to estimate the farms' impact on this water body? We could develop a list of practices that could potentially prevent or minimize runoff into the water body, (e.g., a nutrient management plan, fertilizer application schedules) or alter the outcome (e.g., using an equation that estimates the amount of fertilizer lost to runoff by dividing the amount of fertilizer by the amount of rain and that is multiplied by a "fertilizer loss" factor). Which approach is better to predict the impact on the water body? Will better management practices actually result in desired outcomes or should outcomes be estimated instead?

In many instances, a combination of outcomes and practices can give a better estimate of performance and enhance understanding of how to make improvements.

For example, in the case of greenhouse gas emissions, a GHG LCA for Fluid Milk conducted on behalf of the Innovation Center identified that more than 90 percent of the GHG footprint can be explained by 20 variables throughout the dairy value chain,²⁷ and current research suggests that similar variables will be drivers for water use impacts. The LCA also revealed that there is a large degree of variability among dairy farms in the U.S., and individual farm practices have a greater impact on sustainability than farm size, region or type of business. However, practices are influenced by the context in which farmers operate. Positive sustainability outcomes depend on best practices and a range of complex variables, such as geographic location, climate, soil, weather patterns and available technologies — which could all differ even within the same county.

Dairy producers make decisions based on their experience and understanding of managing the land and livestock. All 53,000 dairy operations in the United States are different: they are located in different regions, climates, on different soils, and vary in size and practices. No single management strategy will work for each farm. Rather, each farm requires information and tools to craft its own plans tailored to the particular circumstances in which it operates.

“Over my lifetime as a dairy farmer we have always tried to improve our performance as a producer of milk by, among other efforts, using water- and energy-saving technologies. However, we do not have a particular baseline ... to actually quantify the progress we have made over the years and to put it in terms that everyone can understand. Going forward we can establish carefully thought out baseline measurements today and begin quantifying improvements from this point forth.”

Steve Graybeal, Graywood Farms, USA

The complexity and general lack of scientific understanding of measuring sustainability at farm level may explain why practice-based indicators have been practical and popular proxies for assessing sustainability performance in agriculture.²⁸ However, it is doubtful that a list of generalized best management practices and improvement strategies will actually result in desired sustainability outcomes if they are not adapted to local circumstances and operating systems.

In general, dairy producers would benefit from a harmonized sustainability measurement approach that considers outcomes, processes and practices. Such an approach would reduce redundant requirements, identify efficient business management decisions, and provide solutions to optimize management practices and resource use.

Measuring and Reporting Sustainability in the Dairy Supply Chain

The U.S. dairy industry is undergoing a process to identify and quantify the factors influencing dairy sustainability. This information will be used to develop metrics and better inform our stakeholders.

The Innovation Center is cooperating with several universities to conduct research and generate primary data from field studies to develop our dairy Sustainability Measurement and Reporting Framework that will result in practical and relevant inputs to support business decision-making.

Focusing on what matters

LCAs have been conducted to identify the factors that have the most impact on dairy's performance related to energy, GHG emissions, water and land use. This has equipped the dairy industry to create targeted programs to address those impacts. Industries can compare the magnitudes of different impacts and identify where to focus measurement and innovation efforts throughout their supply chain to reduce those impacts. LCA also can be used to benchmark against industry averages. This system-level assessment accounts for diversity within and across the supply chain for various business models, size, regions, age of plant or farm, make and process.

Over the past three years, the Innovation Center has used a life cycle assessment approach to gain insight and knowledge about how to measure environmental impacts of the dairy industry. We completed a GHG LCA for Fluid Milk, and we are completing a comprehensive LCA focused on processing and packaging of fluid milk. The Innovation Center is currently conducting a comprehensive LCA for Cheese (Cheddar and mozzarella) and fluid milk LCAs that assess environmental impacts including GHG, energy, land use, and water use and quality.

The GHG LCA for Fluid Milk clarified the most important measurement variables²⁹ impacting sustainability – and our ongoing LCAs are confirming the importance of these same variables:

- 1. Management practices matter.** According to the GHG LCA for Fluid Milk, the use of better management practices, rather than the size or location of the farm or processing facility, makes the biggest difference in reducing GHG emissions — and they can deliver economic benefits.
- 2. There are opportunities for improvement across the supply chain.** The GHG LCA for Fluid Milk identified opportunities to be more efficient and further reduce GHG emissions along the entire dairy supply chain. For example, on the farm, feed efficiency (how effectively a cow's diet helps her produce milk) and manure management (manure storage), represent the greatest opportunities to further reduce GHG emissions. Businesses at each stage of the supply chain have opportunities to cut costs and emissions from fossil fuels and electricity. And refrigerants are a key source of emissions in the retail sector.

3. We have a scientific foundation to measure progress. The GHG LCA for Fluid Milk also showed that the dairy industry is more efficient in its use of natural resources than previously thought. It provides a scientific foundation for all dairy businesses to make independent decisions about management practices that are both economically and environmentally feasible.

Assessing in context

Care must be taken when interpreting LCAs. In order for a number to have meaning, it must be analyzed in context and assessed in the wider scheme of things. What does the total of GHG mean when it is compared with other industries, other countries or the global level of greenhouse gas emissions? How can a gallon of water used by one dairy processing facility in one part of the country be compared with a gallon of water used by another in a different region?

For agriculture, and dairy farms in particular, the relationships between crops, nutrients, air, soil, water and cows — and the farm inputs, by-products and outputs — are interlinked and complex. It is part of a biological system. It is important to understand the context and system in which dairies operate so that we can interpret the results and achieve the desired outcomes and establish effective practices.

For example, inquiring how a farmer manages his or her water at the farm by requiring a response to a generalized list of questions may not be a useful approach to identify the sustainability of water use and quality. Water impacts need to be placed in the context of local circumstances such as availability of water, health of watershed, precipitation, soil, manure handling practices, etc. The way water use is managed differs from farm to farm. In California, water may be scarce or abundant. Coastal California is wet, so producers face more challenges with water quality issues from nutrient and/or pesticide runoff. In many cases, dairies in the California Central Valley are dry, so producers rely on irrigation water and face different issues. In Vermont, water management requires a different approach due to the abundance and prevalence of water compared with producers in California or Arizona.

Understanding indicators in context is particularly relevant for a topic like water use, which is impacted by, and has impacts on, the local availability of water in the area of operation. Knowing an operation's impact on a local water source helps producers and processors understand the short-and longer-term risks related to water availability and scarcity, which aids in their decision-making to improve water usage efficiency. The Innovation Center is working to develop tools and metrics to analyze water and other sustainability topics in context.

Refining the definition of dairy sustainability

The U.S. dairy industry is working to develop an environmentally, economically and socially balanced definition of sustainability. For example, corporate supply chain scorecards often omit positive social and economic sustainability dimensions such as nutritional value of products, agricultural heritage, protection of green space by farms, or local economic impacts on communities through provision of jobs, payment of taxes, buying of supplies, and strengthening of the social coherence of communities through volunteering and donations. Other important sustainability factors like quality of life are also often left out of the measurement equation. In other cases, existing measurement tools omit the positive impacts related to consumer health and wellness.

Supported by our LCA studies and process-based models, we can set baselines for the dairy industry to compare against. Baselines help dairy farmers and businesses understand how they compare within an organization, as well as compared with others in the region over time.

“Measuring environmental, economic and social sustainability in agriculture is extraordinarily complex, and dairy is no exception. The industry simply doesn’t know all of the answers yet, but we can listen to what the science tells us.... We can forge ahead and continue to improve as we learn. The opportunities are tremendous, especially when all stakeholders in the value chain work together.”

Margaret Henry, Director,
Sustainability and CSR
Performance, Sodexo, USA

In refining the sustainability definition for dairy, in addition to focusing on what matters as highlighted by scientific research, consideration of consumer topics is relevant and important. The study was conducted by the National Marketing Institute (NMI), which researches trends in health and sustainability issues through their Lifestyles of Health and Sustainability (LOHAS) database.³⁰ The 2011 study found that 74 percent of those surveyed felt that it is important for companies not just to be profitable but also to be mindful of their impact on the environment and society. A growing percentage of consumers care about sustainable agriculture practices, and nearly half of those surveyed specify they want tangible proof of sustainability efforts.³⁰ These results conform to other consumer research studies.⁹ In another study, the NPD Group conducted a consumer research study in 2009 to assess consumer awareness of and reaction to key societal, economic and political issues. This study found that the most familiar and most important issues relate to food safety, water and air quality, energy and local economy.

Another important step in refining the definition of sustainability is to understand those sustainability areas that are most important to dairy producers. The Vital Capital Index (VCI), which, in its beta form, is made up of 40 field-tested, science-based, practical indicators, was developed in consultation with producers and a broad range of other stakeholders, including nonagriculture landowners, agriculture land conservation organizations, citizens, land use planners and labor organizations. These indicators were then tested with 70 dairy producers to ensure their accuracy and acceptability. Developing this index was a practical experience that provided insights into how dairy farmers assess what sustainability means on their own farms, and how they could identify and implement changes appropriate to their farm, and track efforts over time.

It is important to develop a sustainability definition for dairy that can be embraced by dairy producers, stakeholders and the supply chain, and that considers the interconnectedness of the various environmental, social and economic elements; without that, undesirable trade-offs may occur.³¹

Bringing science to the decision-maker

LCA results provide data representing a snapshot in time of a farm, a processing facility or an industry. In order to make these results useful to daily decision-making, the data must be in a user-friendly format and supported by process-based models that account for the interdependencies of the biological systems involved.

The Innovation Center is using the results of its LCA studies to coordinate the development of Farm Smart™, Dairy Plant Smart™ and Dairy Fleet Smart™, three process-based tools that help dairy producers and processors make informed decisions about which practices to change or improve in order to be more environmentally, economically and socially sustainable.

The Farm Smart™ tool will initially address farm practices including crop production and manure management; in the future, it will expand to cover herd health and building design. This is where dairy producers have direct control over practices on their farms³² and where a significant percentage of the dairy industry's environmental impacts occur. Farm Smart brings the most up-to-date scientific knowledge to the dairy producer, providing information and tools to manage farming operations most efficiently. Farm Smart incorporates information on climate, soil quality and nutrient levels, watershed location, etc., and will relate to financial performance and, potentially, regulatory requirements.

Based on the GHG LCA for Fluid Milk, Dairy Plant Smart provides benchmarks, modeling tools and case studies to share with processing plants to support widespread implementation of energy efficiency best practices. The results of the additional LCAs will feed into this tool, and we will expand the tool to include water.

Dairy Fleet Smart helps milk processors and trucking companies adopt fuel-efficiency best practices established by the U.S. Environmental Protection Agency and technologies for milk transport and distribution.

Building a Sustainability Framework for U.S. Dairy

The Innovation Center is bringing the dairy industry and its stakeholders together to identify relevant environmental, social and economic topics, identify ways to best measure, understand and communicate these, and to work together to identify improvement opportunities and strategies.

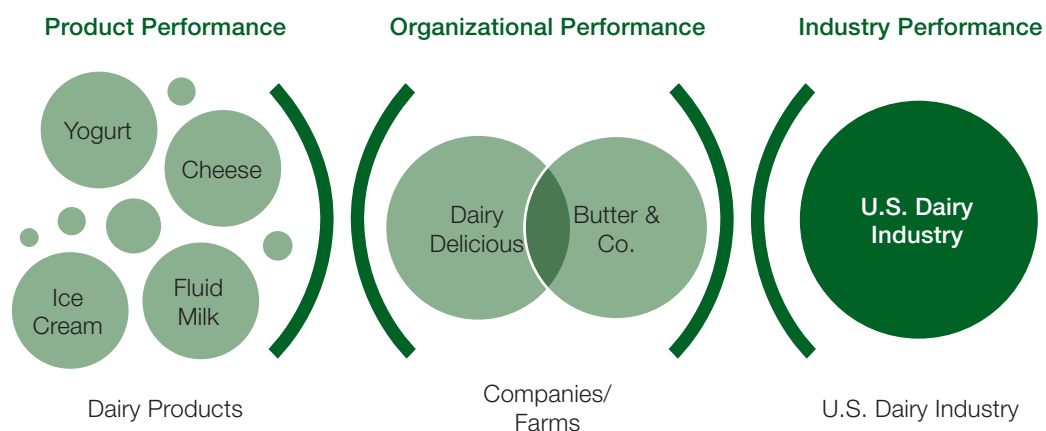
As previously noted, various measurement initiatives are developing sustainability assessment tools based on different methodologies, evaluation systems and reporting formats.³³ The U.S. dairy industry is committed to creating a common framework, the Dairy Sustainability Measurement and Reporting Framework, which identifies the relevant sustainability topics for the industry as a whole, as well as for each supply chain level. It includes indicators and metrics to support the dairy industry in measuring, reporting and exchanging information of sustainability outcomes and performance. It will not prescribe but will rather present options that may help them increase their positive impacts.

The diagram below shows three levels of performance measurement: the product, organizational or company level, and the industry level. While each level is interdependent on the other two, the Innovation Center is first working to develop measurements that can be used at the organizational or company level. The Development Teams develop overarching principles, metrics and indicators under guidance of the Framework Task Force. The environmental indicators and guiding principles will be reviewed by the Sustainability Council and Innovation Center Board in May and June 2012.

The Sustainability Framework will eventually include indicators and metrics for different levels of the supply chain. The Sustainability Framework will be built in a way that allows each indicator to be measured and aggregated at one of many levels:

- At the farm or operation
- At the processor
- In the supply chain or at the product level (including transportation, retail, consumption)
- As an industry

Three Levels of Performance Measurement



A state-of-the-art approach to measuring and reporting sustainability

Overarching philosophy

The Innovation Center's overarching philosophy is based on harmonization — or the fundamental belief that the Sustainability Framework must be built on a platform of learning and an open exchange of what works and what does not, in an industrywide pre-competitive setting. It should include all stakeholders in the value chain with internal dairy industry collaboration and collaboration with influencers and gatekeepers such as other agricultural sectors and nongovernmental organizations.

The Innovation Center is committed to providing businesses throughout the dairy supply chain with tools that empower their people to make smart business decisions. Thus, the vision for U.S. dairy sustainability metrics is to develop a common measurement initiative that is practical and that brings applied science to decision-makers. It is a national framework that is relevant from farm to table, and it establishes a consistent and relevant baseline of what to measure and how to measure it. It will integrate the Farm Smart, Dairy Plant Smart and Dairy Fleet Smart tools.

The Innovation Center uses primary research and field testing so that we can have the best approaches to measuring and reporting dairy practices. We will identify credible sustainability indicators, establish their baseline metrics and measure those indicators over time. Science, including LCAs where relevant, allows us to identify, discuss and understand sustainability.

“I believe that measurement is going to play a very important part in the future of all food supply chains ... I'm proud that in the dairy industry, our response has been proactive and progressive ... sustainability is a process that will have to improve over time.”

Doug Young, Spruce Haven Farm and Research Center, N.Y., USA

The Guiding Principles of the Sustainability Commitment, drafted at the Innovation Center's 2008 Sustainability Summit and endorsed by the Innovation Center Board in 2009, guide the Sustainability Framework's development. They are:

- Recognizing and appreciating all members in the value chain from farm to table
- Working collaboratively with all stakeholders
- Taking responsibility for our environmental impacts and celebrating our positive contributions to the planet
- Ensuring economic fairness across the value chain
- Preserving and enhancing the health and wellness of all people
- Using both sound science and a transparent process to foster continuous improvement

The Sustainability Framework will be a set of environmental, social and economic topics with corresponding metrics and indicators used by the industry to communicate its sustainability performance and progress. Customers and measurement initiatives can use the framework as industry-tested contributions that complement their own measurement efforts.

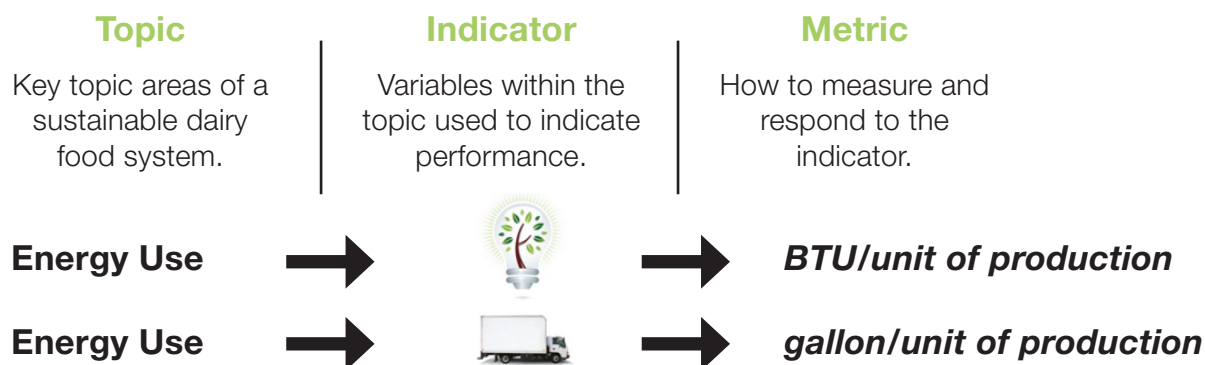
The framework builds on existing initiatives where possible. A selection of these initiatives are listed in the Appendix and research compendium to be published by the Innovation Center later in the year.

Structure and process

The Sustainability Framework will be developed in a phased approach, with field testing and gradual additions of indicators and metrics. Initially, the Sustainability Framework will focus only on measurement at the dairy farm and processor levels for a limited set of sustainability topics. Building the framework gradually over time allows for in-depth research, analysis and discussion with stakeholders about the indicators and their corresponding metrics. Field-testing the indicators and metrics is important, and it could take up to several years because producers and processors will need to test the same set of indicators and metrics multiple times in order to secure their relevance, validity and practicality.

Topics for Measurement at Production and Processing Levels		
TEAM	Phase 1 (2011-12)	Phase 2 Considerations (2013 and beyond)
Environment	Water Energy Greenhouse gas emissions	Waste and materials Biodiversity/land Crop production Additional topics to be determined
Economic	Local economic impacts Product differentiation	Value across supply chain Financials Additional topics to be determined
Social	Working conditions Animal well-being Community contributions	Food safety Health and nutrition Nutrition Additional topics to be determined

Indicators and metrics will be developed for each sustainability topic. See the diagram below for examples of sustainability topics, indicators and metrics.

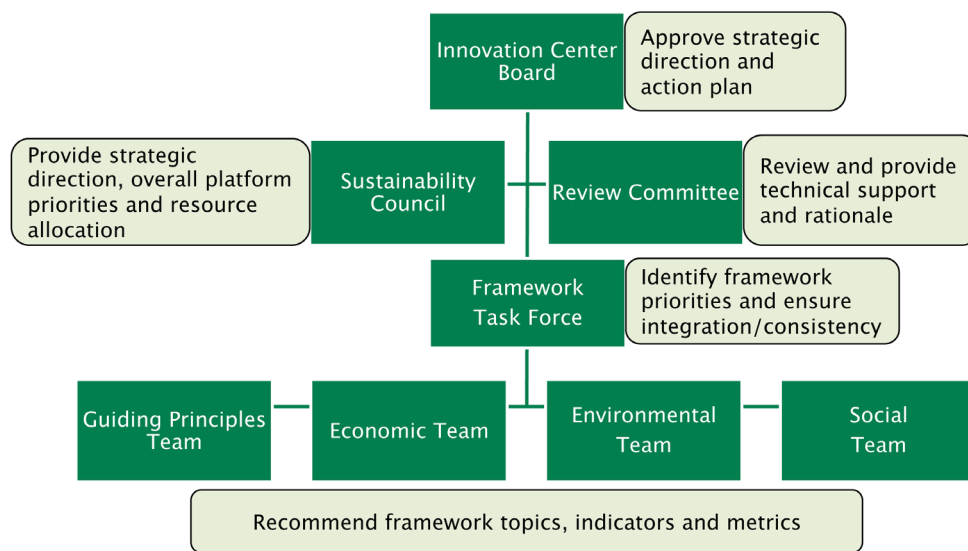


To ensure a transparent and thorough development process that allows all voices to be heard, the organizational structure supporting the Sustainability Framework includes multiple levels of input and review and a feedback loop. Stakeholders are involved in each level, giving the industry's stakeholders sufficient opportunities and time to have a say in the framework development.

Several teams are working to develop the Sustainability Framework:

1. The Sustainability Council of the Innovation Center involves stakeholders from the entire dairy supply chain, including producers, cooperatives, processors, transportation providers, NGOs and more. The Council provides overall strategic direction, establishes priorities and allocates resources for all of the Innovation Center’s sustainability projects including the Sustainability Framework. The Council makes recommendations to the Innovation Center Board of Directors for final review and approval of the framework.
2. The Review Committee is made up of measurement and dairy experts who have an interest or experience in dairy sustainability measurement. This committee reviews the recommendations made by the Sustainability Framework Task Force. As an independent group, it provides an objective review of the framework.
3. The Sustainability Framework Task Force is composed of more than 15 dairy industry stakeholders, including producers, processors, cooperatives, brands and nonprofit organizations. It identifies priorities and ensures consistency among the various teams. This group also reviews the topics, indicators and metrics developed by the Development Teams.
4. The Development Teams consist of industry stakeholders that are working to recommend framework principles, metrics and indicators to the Sustainability Framework Task Force.

Dairy Sustainability Measurement and Reporting Framework Organizational Structure and Roles



The Innovation Center has reviewed 23 existing sustainability frameworks and indicators that are relevant to U.S. dairy to identify the best existing structure and content that could be adapted to form the dairy framework and indicators. The Sustainability Framework’s draft structure, indicators and metrics are under development and inspired by the structure and content of the Global Reporting Initiative’s (GRI) G3.1 Sustainability Reporting Guidelines. The GRI Guidelines are used by several companies in the dairy supply chain and are built and used by thousands of stakeholders worldwide. The GRI Guidelines are focused on reporting outcomes or performance measures, with room for organizations to report these measures in context. The Development Teams are reviewing the GRI indicators and metrics and updating these to increase their relevance and applicability for the U.S. dairy industry, and in addition borrowing from indicators and metrics included in other measurement systems. An overview of the frameworks that have been researched by the Innovation Center is presented in the Research Compendium, which will be published later in the year.

Public comment period

As a formal feedback loop, a 60-day public comment period will allow stakeholders to review and comment on the draft indicators and metrics.

Pilot

The Sustainability Framework guiding principles, indicators and metrics will be pilot-tested over a two-year period, during which continual monitoring will take place and the framework indicators and metrics will be evaluated and updated.

Timeline

The first phase of the Sustainability Framework development will take place from fall 2011 through the end of 2012. The various Development Teams are identifying and developing indicators and metrics for their respective Phase 1 topics listed in the table on page 16.

Fall 2011 – summer 2012	The Development Teams develop overarching principles, metrics and indicators under guidance of the Framework Task Force. The environmental indicators and guiding principles will be reviewed by the Sustainability Council and Innovation Center Board in May and June 2012.
Summer 2012	Stakeholders and the Review Committee review the draft environmental indicators and guiding principles. The updated draft will be reviewed by the Sustainability Council. The Sustainability Council reviews the social and economic draft indicators.
Fall 2012	Piloting of environmental indicators and guiding principles; updating of social and economic indicators.
Winter 2012	Social and economic indicators approved by the Sustainability Council. The draft Sustainability Framework, including environmental, social and economic indicators and guiding principles will be sent to the Innovation Center Board for review in January 2013.

Join the Movement

The Sustainability Council invites all dairy industry stakeholders and representatives from other measurement initiatives to help shape the Sustainability Measurement and Reporting Framework for U.S. Dairy in order to make it useful, relevant and applicable throughout the dairy value chain. New insights into best ways of measuring, reporting and applying sustainability can be gained through collaboration, innovation and leadership. Join us in the discussion to shape dairy sustainability measurement and reporting methods.

For more information, visit USDairy.com/Sustainability or send us an email at innovationcenter@usdairy.com.

We would like to thank all of the industry leaders who we have interviewed and who provided us with quotes, those who gave input and reviewed this white paper throughout the writing process, and a special thanks goes out to Chris Anstey, Gene Khan, Gord Kurbis, Jim Mulhern, Amy Philpott, Tamara Richards and Marty Strauss for their contributions.

Appendix

What leaders are saying

This section includes a compilation of interviews from dairy and food industry leaders. Together, they highlight the importance and value of a measuring sustainability. They also illustrate the complexity of such a task and the need for industry harmonization.

Jon Alby, associate general counsel, Leprino Foods, USA

“At Leprino Foods, we make mozzarella, cheese blends and dairy products that we sell for others to use as ingredients. Our customers are pizzeria and food service operators, frozen food manufacturers and private label cheese packagers. They’re asking us about sustainability and I’ve got involved personally in finding the answers by joining the Sustainability Framework Taskforce for the Sustainability Council. Our customers’ questions start with whether we have a sustainability program (we do), up to requests for detail on measurements of our supply chain. They’re asking us because they expect that we consider all the impacts of our business and have a clear understanding of the big picture.

“We’ve found out about our own operational footprint and are working on it. Right now, though, we can’t answer the detail questions about our raw material, which is milk. Yes, our producers can now tell us about their carbon footprint, though it does vary across the country and there’s much more to understand. We don’t yet know about water, animal welfare, livelihoods, ecosystems and so on. Water in particular is a concern. I believe that if you look at measurements without local context, it can mislead. We need to be careful how it’s communicated with consumers because they’ll make decisions on this information. We need a credible measurement that is not just a number. It must have direct context, something with relevance — where there’s transparency of measurement and the impacts in the supply chain are understood.

“Credibility is built up over time; it’s not a single report or a number. You need to earn it.”

Andrea Asch, manager of natural resources use, Ben & Jerry’s, USA

“At Ben & Jerry’s, we’ve been working on a sustainable dairy initiative since 2003 in our ‘Caring Dairy’ program. Our goal has been a ‘continuous improvement’ model recognizing that we need to be flexible to new ideas and innovations that benefit farmers. We believe that by striking a balance of a ‘Happy Farmer, Happy Cow, Happy Planet’ there can be an overall improvement in dairy farming. Through specific measurements, trainings and improvements, we will see positive results on farms. Our goal has always been to share best practice that is good for the overall farming industry. We will work on the integration of Unilever’s Code of Sustainable Agriculture, which includes both metrics and practices. Ideally, we will find alignment for all this work because we believe that global harmonization is best for farmers. Farmers must have a reason to get behind these programs; it’s just not practical for them to work on many different codes.

“My view is that consumers want to know that you’re working with the supply chain and that they will judge the credibility of your work. I believe that to imply perfection is an improper message, and a dose of genuine humility goes a long way. The work we have initiated is the tip of the iceberg; there is a lot to do ahead of us. We want to have data to validate our claims so we can be transparent about what we claim to be a true sustainable dairy program.”

Lindsay Bass, senior program officer, freshwater, World Wildlife Fund, USA

“Just like for other sustainability issues, when looking at developing credible water measurement, you need to consider a range of risks. There’s physical risk such as draining aquifers. There’s regulatory risk through fines from the pollution of rivers. There’s also reputational risk with public groups becoming concerned about groundwater contamination. There’s also the risk of damaging biodiversity through losing species, habitats and ecosystems. It’s not simple at all. WWF has done some work with the Innovation Center for U.S. Dairy to help work out priorities. We advise starting with building awareness of water challenges, moving on to develop science-based assessments and then implementing innovation projects. This can result in effective reporting that can accelerate commitment through collective action. We believe this combination supports improved river basin management.”

Jed Davis, director of sustainability, Cabot Creamery, USA

“Measurement is imperative for both the credibility and substance of our sustainability initiatives. Proper measurement is a prerequisite for proper reporting, for which there will be more demand over time. It is easy to imagine a future where the nonfinancial bottom lines of sustainability evolve into more standardized reporting formats, similar to the financial bottom lines of accounting today.

“As far as harmonization across initiatives, the greater the harmonization, the more efficiently initiatives can be implemented and results be compared. One major challenge to 100 percent harmonization is recognizing and appropriately addressing the specific nuances that define individual industries. Another potential barrier is the strategic temptation to be first out of the gate with an initiative, versus the necessarily more patient efforts involved in harmonizing with other initiatives. Dairy needs to determine where we wish to find our industry on this spectrum.

“Dairy has charted an early path of leadership on the topic of sustainability. We are well-positioned both within agriculture and beyond to lead in sustainability measurement and reporting, too.”

Erin Fitzgerald, senior vice president, sustainability, Innovation Center for U.S. Dairy

“I’ve been involved with sustainability at the Innovation Center from the beginning. It’s already been quite a journey. Looking back, at the start we couldn’t answer key questions from stakeholders on sustainability except by saying, “We’ll find out and let you know.” As a result, we knew we had to build a scientific measurement of sustainability for the dairy industry.

“We quantified greenhouse gas footprint first — we had a number. The number doesn’t mean anything if there isn’t context or a shared understanding of what the number means and how we can create opportunities. By creating a measurement for the industry from grass to glass, we were able to collectively from farm to consumer say we own this footprint. In June 2008, we held a Sustainability Summit. We got 250 people together for three days to talk about sustainability and the U.S. dairy industry. We had all sorts of people there: producers, processors, co-ops, brands, retailers, transporters, academics, investors and NGOs. We agreed on our strengths and we looked at the future. Those three days framed the work of the coming years. At the top of the wish list was a set of metrics to measure progress. There were some key words and phrases as well such as alignment, multistakeholder engagement, integration and of course ‘economically viable.’ During this summit, we decided we needed a sustainability framework to quantify sustainability, to drive efficiency, consistency and comparability, but importantly, lead the food industry as a leader in sustainability.

“Since then, many are asking questions how we measure sustainability in the food industry. What has stood out is that our work is not just about dairy; I believe we are a pilot for food and agriculture. Our strategy is to: measure by developing the best science through life cycle assessments, lead by setting goals, innovate by developing projects that will be game-changers and then develop a credible framework that allows everyone within the value chain to assess, measure, mitigate and communicate across the value chain. By having the entire value chain in these discussions collectively, we are able to have discussions on how to measure AND make sustainable change. We get to work with people all over the world, on farms, and with major brands, retailers, the one thing that I see is that people want to measure but haven’t thought yet about how to bring the science to the decision-makers or farmers, logistic managers, plant managers and buyers. Many others in the food sector are facing the challenges of measurement. Therefore, if we in the dairy industry can work with others on harmonizing various index approaches and continue to measure, as well as work on innovative solutions that actually will deliver environmental and economic benefit, then we have to work together; this is too complicated! There is no other choice than to work together.”

Maaike Fleur, senior manager, reporting framework, Global Reporting Initiative, The Netherlands

“There is a discussion at the moment about integrated corporate reporting that makes the link between sustainability and economics. Another debate is around reporting the context. Our guidelines are aimed at headquarter reporting. The large companies aggregate the data for their various countries into one metric and they are ‘invited’ to explain the trend. The response to that invitation does vary. Our approach can always be improved, of course, and I believe that we mustn’t let better be the enemy of good; developing the GRI Guidelines is a constant process. We supply the framework and guidelines but we do not judge the quality of the data in the resulting reports: this is up to the companies and their stakeholders.”

“GRI Sector supplements capture the specific set of sustainability issues faced by different sectors, and our Food Processing Sector Supplement was launched last year. I believe the animal welfare indicator protocols are unique.”

“We are now developing the fourth generation of our guidelines for sustainability reporting (‘G4’). It’s a public consultation to start with to collect input on what topics should be covered next. We’ll also be revising existing topics.”

Steve Graybeal, Graywood Farms, USA

“Measuring sustainability is a difficult but worthwhile endeavor because it shows us areas where we may be able to improve efficiency. Over my lifetime as a dairy farmer, we have always tried to improve our performance as a producer of milk by, among other efforts, using water- and energy-saving technologies. However, we do not have a particular baseline to present in order to actually quantify the progress we have made over the years and put it in terms that everyone can understand. Going forward, we can establish carefully thought-out baseline measurements today and begin quantifying improvements from this point forth.”

Dana Gunders, project scientist, food and agriculture, Natural Resources Defense Council, USA

“The Stewardship Index for Specialty Crops is about creating a system to measure progress toward sustainable performance for the fruit and vegetable supply chain. It isn’t about creating a standard or certification system, nor is it about practice-based evaluations. It’s about creating a yardstick for measuring sustainable outcomes that can be used by anyone regardless of their starting place on the performance spectrum.”

“We’ve got around 400 fruits and vegetables in our scope and intend to eventually cover the whole supply chain. We’re a multistakeholder initiative and are helped in our work by public interest groups.”

“One impetus for the project was growers’ experience with multiple, duplicative food safety audits. With each retailer creating their own requirements, growers were being subjected to a range of similar but different audits. This was proving costly and time-consuming. One reason they have supported and participated in the Stewardship Index is to avoid another set of duplicative audits. In addition, as key stakeholders, they are able to inform and influence development of the framework.”

“Pilot testing the metrics with growers is an extremely valuable part of the process. At the end of the day, we need something that can actually be used on the ground. At the same time, it’s important to have a variety of stakeholders in the process to bring their knowledge and perspectives. Our first pilot testing involved 35 growers in 18 states and eight crops. Their level of data collection varied widely. For those already collecting and measuring data, the Stewardship Index may not bring much insight into their management practices, but for others there’s potential for significant increases in water, energy and nutrient efficiency.”

“Another powerful concept is that the Index allows growers to compare themselves with their peers. We hope to achieve enough participation to allow for this.”

Hal Hamilton, co-director, Sustainable Food Laboratory, USA

"I was a dairy producer for 15 years. It's not all that romantic to meet the cows long before dawn on a cold Christmas morning, but my heart's desire is still that there are viable opportunities for younger ambitious people to have just that experience! I imagine a future business model for dairy that continues the current geographic diversity of the industry. Fluid milk production has got to be close to the people who drink it and good for the people who milk the cows.

"I think that the various metrics initiatives around the world are facing quite a challenge at the moment. Of course, there is the question of finding scientific integrity, validity and rigor. However, there's also the really tough question of the implications of measurement for people. Buyers want to report about sustainability so they ask farmers for lots of information. This is stuff they never wanted before. The farmers are hardworking businessmen and are not clear about the value of this unpaid extra work. They would much prefer to just get on with being farmers.

"There's a great need for farmer leadership and some clarity about this value proposition. The buyers need to be a part of working that out. I guess the suppliers will come around to it eventually, as it will become a part of the license to do business. But right now, it's getting pushed by those with the most resources onto those with the least."

Margaret Henry, Sodexo, USA

"Measuring environmental, economic and social sustainability in agriculture is extraordinarily complex, and dairy is no exception. The industry simply doesn't know all of the answers yet, but we can listen to what the science tells us. We can forge ahead and continue to improve as we learn. The opportunities are tremendous, especially when all stakeholders in the value chain work together.

"Sodexo feels strongly that it is especially important to develop the sustainability measurement framework in partnership with producers because, if it won't work for farmers, it won't work for anyone. In addition, producers must be given management tools that help them actually apply the science to daily, on-farm operations. Based on research and direct input from stakeholders, including dairy producers, the Innovation Center has already begun developing these types of tools, and Sodexo is proud to support these practical, science-based efforts."

Molly Jahn, professor of agronomy and genetics, special adviser to the chancellor and provost for sustainability sciences, University of Wisconsin-Madison, USA

"I started in plant breeding with the goal to improve crop performance and nutritional qualities while reducing negative environmental consequences of our systems of food production. That path led me to the deanship at the College of Agricultural and Life Sciences at UW-Madison and a stint in the Obama subcabinet at USDA leading their science and statistical agencies. Most recently, I have returned to my science life full-time to serve as special adviser to our university leadership for Sustainability Science at the University of Wisconsin-Madison. I also serve as the U.S. Commissioner of Sustainable Agriculture and Climate Change, one of 13 commissioners from six continents who bring our expertise in agriculture, climate science, food, economics and natural resources toward informing international policy. I advise the Keystone Center's Field to Market Initiative for sustainable agriculture and the Sustainability Consortium and have worked extensively with private and nonprofit sector and philanthropic organizations.

"We face challenges for which the incremental advances within our current systems will likely be wildly insufficient. One of the most exciting prospects for significant acceleration of our commitments toward food security and planetary stability resides in new and energized commitments to these goals in the global private sector. The best companies are already setting targets for sustainability in their supply chains that include accounting for agriculture. They're making a public commitment to positive change before fully understanding what the targets for that change must be."

“So now it’s up to this century’s scientists to inform those targets and deliver insights from our work in decision-relevant formats to all those making investments and decisions toward food security and global health. In the past century, agricultural research has understandably been very focused on productivity, on output narrowly defined, assuming an open, unconstrained scenario for inputs and foreseeable but unintended consequences. The future approach must provide a better analysis of the trade-offs between yield and the margins for profit, environment and people. Communication also has to improve, and at UW-Madison we’re working to create ‘decision-relevant science.’ This will help frame the risk elements of sustainability and drive the engagement of the companies, investors, bankers and insurers. We’re also going to need the support of the government and cooperation among federal departments. All these stakeholders are greatly impacted by the risks but the data isn’t strong enough yet to drive their decision-making.”

“We can’t just expect producers to take the whole burden. They need to work out and share the cost of change. We will build bridges between standards and measurement tools so that practice and outcome can be linked. We must recognize that dairy producers are managing very complex systems and that the rest of us need to have respect for their local variations. All this means that as scientists, we need to inform the decision-makers that it’s a problem of robust optimization, not only of maximization.”

Stanislav Jas, officer for environment and sustainability, International Dairy Federation, Belgium

“The agreement of the Global Dairy Agenda for Action in 2009 was a big moment for all us. It’s best thought of as a living document that is committed to reporting progress on sustainability and to call for action from policymakers to provide supportive regulations. We’re measuring impact through our Green Paper website, dairy-sustainability-initiative.org, which provides a compilation of GHG reduction initiatives by the global dairy sector. We’ve seen an increase in the contribution, and we now have 330 stories from all the continents. I still think these are the early days and there is a need to promote further, especially to the smaller companies that do not always see the benefit. We have to recognize that around the world there are different levels of development and potential. October 2011 will be an important date for us all because extending the scope of the Global Dairy Agenda for Action will be under consideration at the World Dairy Summit in Parma.”

“Looking forward, we need a robust and practical set of tools. Measurement must be applicable, credible and provide a business solution. It also must be internationally recognized, practical and based on one standard methodology. If not, then it won’t work. To measure carbon, we’ve used an agreed international standard from ISO and developed something that is relevant to the dairy sector.”

“When looking at the other metrics for sustainability, we must be flexible because of the variability. For example, carbon is global but water is more local. For water, we support current ISO work and are cooperating with UNEP-SETAC. We now have an action team working on that and we plan to publish our dairy-specific guidelines in 2012. The social LCA is more or less in place now that we have guidelines from ISO; we just need to agree on the indicators.”

Dr. Olivier Jolliet, professor of environmental health sciences, University of Michigan, USA

“I think one important thing is that we don’t just look at the overall amount of water but also consider water stress, mainly on the western side of the U.S. Not all water is equivalent. There is a high variation in impacts between different places. You can have very dry conditions, changing the situation. Compared to global warming, which is a global effect, this is a local issue to which each local consumer directly contributes.”

“I think it’s good to understand what your strengths are and where you can improve [when looking at opportunities for producers regarding measurement]. The first thing would be to identify the key issues. Dairy farm water consumption may still be important, but a much smaller quantity than feed crop irrigation that dominates water stress impact. Identify the hot spots and then work out where one can improve from the current situation to the next step.”

“We’re probably moving in this direction [of considering water usage for feed production when developing a new business unit in a particular area]. When changing the operating area and choosing a state or when selecting feed crop provenance, this is one of the criteria. But it is also an incentive to apply most efficient water use and growth practices in a given location.”

Joop Kleibeuker, director general, European Dairy Association, The Netherlands

“I believe that an important part of the sustainability discussion is about the true value of milk. If you think of it as just a mixture of protein, fat and sugar, it would appear to be a relatively simple product. There are much cheaper ways to produce such a mixture. However, if you think of the quality, then there’s a real and special value for which a part of its cost can be found in the sustainability agenda. There is a question of trade-offs, and that is what the dairy processing industry must recognize.

“We mustn’t hide ourselves or work alone on this challenge. It’s not enough to tell each other how we are doing; we need to get the discussion about milk quality out into the open. I believe that it is not as simple as just providing a measure and we will need to be careful in defining global parameters. We will need to show that everywhere there is improvement and that climatic comparisons are misleading.”

Gord Kurbis, director, environment, Pulse Canada

“I believe in measuring outcomes rather than practices because it encourages farmer innovation. Outcomes also have the potential to bring clarity to issues such as the role of applied science and technology in agriculture. But outcomes are more complicated to measure than putting a check mark in a box that a certain practice is being used, so my view remains that it is practices that will be measured at the farm level for some time to come until workable ‘outcome’ indicators can be determined.

“Finding a way to communicate the complexity of sustainable agriculture is the potential Achilles heel of our work. My wife does our family shopping; she doesn’t work in agriculture or sustainability. So I ask myself, how does she have a fighting chance of really understanding a message about sustainability? People seem to latch on to simple words and make big assumptions. Of course effective communication needs to be simple, but oversimplification risks driving no change or the wrong change at the farm level.

“I think what would be ideal is if the entire value chain decided to make all food choices sustainable. There will be inefficiencies in the race to translate the complexity of sustainable agriculture into simple, credible messages for consumers whose view is “just tell me whether it’s sustainable or not.” But in this world, it will be that very competitive pressure that helps drive progress. So the way forward seems to be about building trust in the brand, whether that’s the retailer for their private label or the brand manufacturer.”

Brian Lindsay, independent consultant to the dairy industry, Australia/UK

“Measuring sustainability in dairy is about finding local strategies that are set in international best practice. In 2009, seven (now six, as one ceased trading last year) dairy organizations from around the world signed the Global Dairy Agenda for Action. That commitment included a pledge to reduce carbon emissions; there were a range of actions from the development of a common LCA methodology for quantifying emissions to sharing best practice and aligning research (see dairy-sustainability-initiative.org). This showed that while there’s a big range of farming systems it’s still possible to find international agreement to promote the long-term sustainable supply of milk and dairy products.

“We need to work hard to keep on that same page to ensure a shared understanding and a common approach. There’s a good example in the dairy life cycle analysis work done by Dr. Greg Thoma at the University of Arkansas. By working together through the international network we are all now aligned on our approach to the milk to meat allocation within the agreed methodology. Another potential example of alignment could be from work I’ve been involved in over the last 18 months at SAI Platform. We’ve agreed on principles and practices for dairy production and have recently described nine key indicators that are relevant to all dairy system. Our aim is to quantify the level of implementation and the impact this is having, and this work is ongoing.

“We’re learning together and growing our understanding. This is very helpful as we are now also working on the measurement of efficient water use and are starting to tackle the biodiversity challenge. We must develop models that the industry around the world can both understand and apply. Then we can all go back to our stakeholders with relevant measurement frameworks that have a clear value proposition and that can clearly quantify progress.”

Marty Matlock, area director for Center for Agricultural and Rural Sustainability, University of Arkansas

“Over the coming years, there are an extra couple of billion people coming for dinner, and we need to feed them. We can’t be fighting over what we measure; we should be fighting over what we improve. There’s a real cost to this but I believe we should not pay for data and it should be publicly available. We should be consistent in our methodology. Our approach should be transparent and open. Proprietary models are unacceptable.

“Early on, I was skeptical that it would be possible to develop a common framework for sustainable agriculture around the globe. Over the last couple of years it has surprised me to observe the rate of convergence as the understanding of metrics has grown. I now believe that U.S. agriculture is well-placed to take a leadership role in global agricultural sustainable initiatives.

“A word of caution, though, about the implementation of improved practices: When we define good practices, we must clearly define the outcomes we care about so that we do not limit innovation. Just focusing on practices can result in unexpected bad consequences. I’m not saying that good practices don’t work; they can be very important in driving improvement. I am saying that it’s the producer who knows what’s best. Yes, we can educate and even innovate but it’s always for the producer to actually make it happen.

“Frankly, we know little about what’s actually happening in the fields around the world. We have to model agricultural production practices, which sometimes can be useful. However, if we are going to really inform innovation on the farm, we must get more real data from the farms. That means that the pace of measurement must accelerate.”

Dan Rice, Prairieland Dairy, USA

“For Prairieland Dairy, sustainability isn’t just good environmental stewardship. It is about incorporating sustainability into all aspects of our company – into our vision, objectives and values. It’s about serving people, cows and the planet.

“We are changing our company from the inside out, asking our employees and our customer partners to identify, evaluate, implement and measure our sustainable farm practices.”

Steve Rowe, senior vice president, Northwest Dairy Association, USA

“I work for the Northwest Dairy Association (NDA), based in Seattle. We’re an integrated milk marketing and processing cooperative owned by over 500 producers and are well-known for our Darigold brand. We don’t do retail and we don’t grow or supply feed as a cooperative. Darigold, the processing and marketing subsidiary of NDA, sells consumer dairy products domestically, and ingredients products internationally. Approximately 70 percent of our producers’ milk is processed into ingredients products with more than ¾ of that being exported. As a member of the Innovation Center’s Measurement Framework Taskforce, I am passionate about making sure that the voice of the producer is heard as the indicators and methods for measuring sustainability in dairy are developed.

“Multigenerational farms as well as new farms that take into account the long-term care of the land are often models for sustainable businesses. Getting that story out to customers and consumers in an understandable and effective way is a continuous challenge. The closest most customers and consumers get to dairy farms today is when they fly over one in an airplane. They have little understanding of the care and planning that goes into a modern farm. To thrive today, dairy producers are already effective stewards of the environment, good partners to their employees, helpful contributors to their communities, excellent caretakers of their animals and creative financial managers. To not be effective in any of these arenas can spell disaster for any size operation.

“Careful development of measures, metrics and benchmarking tools would be helpful to farmers, consumers and customers. If developed with scientific care, such tools can help tell the modern dairy story, continue to improve the efficiency and effectiveness of dairy operations, and help bridge that gap between those who produce our food and those who consume it.

“I’m worried that the industry is not doing the hard work of working these things out for themselves. It’s easy to just say, ‘OK, everybody does this and we’ll call it “sustainable”’. The use of such a broad brush can create some of its own problems. Scientific findings generated by looking at the entire industry do not easily translate to similar findings of any particular farm. Each farm is a unique system — socially, environmentally and economically.

“Using a ‘one size fits all’ approach of sustainability also tends to commoditize an industry that is constantly trying to create differentiation. We, therefore, must continually check that we’re not interfering with markets along the way. For example, our cooperative stepped out early and strong on animal welfare issues. We did good work and, for a while, were able to differentiate ourselves from the competition. The National Milk Producers Federation (NMPF) Farmers Assuring Responsible Management (FARM) Program came along, and our early innovative work was lost. The buyers don’t differentiate between our program and the national FARM program, so the good intentions of the national FARM program have reduced each co-op’s ability to meaningfully differentiate itself on this issue. That’s not easy to explain to all our members, and the next time we suggest change they’ll remember what happened.

“Though I remain a great supporter of delivering all dairy products in as sustainable a manner as possible, the effort is not always a pre-competitive one and the value proposition to the farmer isn’t always clear. Often the buyers see sustainability as a way of pushing costs onto the farmer while continuously pushing down the price paid for the farm’s product. The only incentive offered by buyers is to make this a condition of trade. Buyers may say, ‘Why should we pay more for you to produce milk properly?’ This all circles back to the buyers and the consumers not really understanding how their food is produced and what it takes to keep a steady flow of affordable, healthy food products on the shelves.”

Donald H. Schriver, consultant to CEO, Dairy Management Inc., USA

“I work as a consultant to Tom Gallagher, the CEO of Dairy Management Inc. (DMI). I’ve been closely involved with the challenge of helping the U.S. dairy industry adapt to change over many years. The formation of The Innovation Center for U.S. Dairy is one of the biggest things I’ve seen happen in the U.S. dairy industry in my career. It brings together over 80 percent of the milk in this country on a pre-competitive basis to talk about things that will help take the industry forward.

“Sustainability was not a clearly accepted shared issue to start with. However, the leadership within the farmers was willing to give it a try. Things have come a long way, and we now have some real international alignment with the Global Dairy Platform (GDP), an international organization of about 50 dairy companies and dairy-related organizations. The GDP is an agile and responsive organization with one area of their work being in support of sustainability. GDP is working with the International Dairy Federation (IDF) and other organizations on sustainability. GDP works ‘top down’ while the IDF tends to work ‘bottom up.’

“GDP holds its annual meeting in conjunction with the IDF annual meeting in order to make available CEOs for the IDF presentations when possible. This helps keeps things moving so change can happen.”

Jessica Siegal, director of stewardship index for specialty crops, Ag Innovations Network, USA

“There are many different groups in the various agricultural sectors working on performance metrics, not just in the USA but also internationally. There is a need for a productive discussion in a neutral space on how to harmonize all of these efforts. What’s being measured in the dairy sector could mirror what’s being measured in the fruit and vegetable sector and in the commodity crop sector. I believe that the key is a true multistakeholder approach that joins producer goals and buyer goals constructively in the middle.”

Aaron Stoermann, intern, Innovation Center for U.S. Dairy

“I’m working as an intern at the Innovation Center for U.S. Dairy. I’m 21 years old and from a family that’s involved in the dairy industry. I hope to be able to get involved in the food business once I graduate. There’s a lot of talk at the Sustainability Council about the legacy for future generations. Well, I guess that’s me! The writer of this paper asked me what I thought the Council would be talking about in 2041. Once I’d put flying cars and robot butlers to one side (you never know ...), I thought about our future agricultural and environmental progress.

“First of all, I think the general theme will still be the same. That is to say we’ll be talking about how can we innovate and improve farm efficiency to stay ahead. But the discussions will be from a different base. Tractors and trucks will be running on natural gas or electricity, genetics will be way better and power from digesters will be a standard part of dairy farming. However, there’s one thing I’m sure about. Environmental and social impact will be clearly understood in that future meeting. It will be based on measurement methods that will be internationally relevant and applied consistently across all agricultural sectors.

“Now we’re guessing ... in thirty years’ time, we’ll know.”

Allan Stokes, director, environmental programs, National Pork Board, USA

“We’re entirely funded by the producers, so we focus on research and development. For sustainability that means land, air, water and carbon. We’ve developed a live swine footprint model for our producers that will give them their own carbon footprint. The University of Arkansas is doing a full life cycle assessment for us, and we expect to publish the water footprint in 2012. We’re also working on air and expect to start soon on land, but frankly we’re still trying to get together the basic data.

“We expect to end up with a shared framework that provides tools so the producers can work out where they are, measure their progress and speculate with some ‘what if’ scenarios. We worked with a broad alliance of people to get this far because we needed their contribution and their buy-in to the process. We’re committed to measurement without duplication and confusion. I would like to spend more time working through common and shared issues with other sectors. We feel that we’re behind some of you, but we also feel there are those that are behind us. I’m keen to invite them to come along, as well.”

Brian Weech, director, livestock agriculture, World Wildlife Fund, USA

“I think the barriers on measuring sustainability are scientific, political and practical. The first two are tough because they keep changing and the third is elusive because of the great variation in farming systems. For measuring animal welfare in particular, there’s no easy answer. We suggest always working in a transparent, multistakeholder process. There isn’t going to be a simple method to measure these things and it’s not going to be easy to mathematically prove impact. As much as we need to get the science to be able to show impact by observation rather than theory, we also have to be prepared to make some informed deductions.

“We have been involved in a number of roundtables. Some of them went through a process of developing standards and then tried to bolt on measurement and evaluation. An important learning for us is that it’s better to work on metrics at the beginning.”

Andy Whitman, natural capital initiative leader, Manomet Center for Conservation Sciences, USA

[On Social Measurement]

“At the Manomet Center for Conservation Sciences in Maine, we build science-based, collaborative solutions to natural resource problems, recognizing the need to carefully address and integrate social and economic concerns in doing so. As small business operators, farmers don’t have the resources to spend a lot of time on social issues. Dairy farmers often work hard to be good neighbors and many give a lot to their local community. In one state, we found that they volunteer almost twice as many hours as the average American. They’re employers as well though, for the larger farms, this can be on quite a big scale. This brings up the issue of immigrant labor, which of course is not just related to the dairy sector. This is essential in some parts of the country because many U.S. workers aren’t interested in the combination of long, unsociable hours with highly demanding work.”

“For the social side, the science has less of a role because the challenges and conflicts are connected to values of responsible employment. A piece of the challenge is in the debate over practice-based versus outcome-based indicators. A good place to start is to find agreement on scope and general indicators of ‘good practice’ without being prescriptive. After all, there’s extensive employment legislation for that. Then farmers can start to understand the kinds of issues they need to think about and over time they’ll help work out which outcome-based indicators make the most sense.”

[On Animal Welfare]

“Dairy farmers are in a good position when compared with the other livestock industries whose goal is to kill the animal. Dairy farmers want to keep a cow as healthy and productive for as long as possible. That’s at the heart of their business model. However, they do retire cows and retirement isn’t in a pasture. For all the dairy farmers I’ve ever spent time with, good animal care is a core value to them. I think one challenge is to ensure that their own employees have the same animal care values as they do for their cows. This sharing of core values — in this case, animal care — is a key challenge for any business or organization. All dairy farmers need to tackle the issue in an ethical, legal and transparent manner to ensure high quality of animal care, to maintain the good reputation of their sector and to achieve respect from consumers. I think the NMPF FARM Program is a great first step to measuring this issue and achieving these goals. It has third-party verification and should assure customers and consumers that dairy farmers are doing their best.”

Doug Young, Spruce Haven Farm and Research Center, USA

“I own Spruce Haven Farm and Research Center in upstate New York. I’m also involved in Cayuga Marketing and I’m on the SAI Platform Dairy Working Group. I serve on a U.S. Environmental Protection Agency advisory committee that provides guidance on how agriculture can bring solutions to environmental concerns.”

“I believe that measurement is going to play a very important part in the future of all food supply chains. If you’re going to be in business, you have to show the bankers the numbers. The more I understand the science, the more I think the market should drive the whole process. This will result in quicker and better improvements than would a regulatory approach. Right now our effort is extremely important. We’re determining the rules of the game based on science. We’re picking the right indicators and working out how to measure them properly. Once that measurement is established, I think food production of all kinds can make progress and develop innovative and cost-effective solutions.”

“The fact is that Walmart asked the question of their suppliers: “What is your carbon footprint?” That was the first powerful signal that the market is going to drive this process, not the government. I’m proud that in the dairy industry our response has been proactive and progressive. Every single dairy farmer is contributing to the cost, and it’s turned out that the science proves we have a fantastic story to tell. We need to figure out how to produce more food in a way that enhances the environment. I don’t think sustainability is a yes or no, it’s a process that will have to improve over time. There is so much room for improvement.”

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1. Ag Innovations Network (AIN)

(<http://aginnovations.org/>)

What it is

Ag Innovations Network is a nonprofit organization whose objective is to create a good food system for all. To achieve this broad goal it aims to: ensure that every county in California has a food system alliance, and to link these into a network that impacts policy; to expand its roundtable to include more issues; to create and disseminate tools to encourage change; and to expand the program nationally and globally.

Types of activities

AIN creates fora for stakeholders to come together for problem-solving. Its services are available to nonprofit organizations, community groups, government and businesses. AIN focuses on three types of activities: facilitating change by engaging stakeholders in dialogue; strategic planning to help people deal with the complexities of the global food system; and training. The AIN website provides users with information on: climate, education, farming, food access, labor, land use, policy, regional food systems, regulation and water.

Current examples

Recent projects include “Making Good Food Work,” a three-day participatory conference held in April 2011 in Detroit, Mich. AIN is currently working with the Marin Community Foundation on a project to address problems with farmworker housing units on ranches in Marin County.

Relationships

AIN is a fiscal sponsor for a variety of projects, including the Stewardship Index for Specialty Crops, the Sustainable Food Lab, the California Ag Water Stewardship Initiative and House Farm Workers.

2. Alliance for Water Stewardship (AWS)

(<http://www.allianceforwaterstewardship.org>)

What it is

The mission of the Alliance for Water Stewardship (AWS) is to “promote responsible use of fresh water that is both socially beneficial and environmentally sustainable.” Its focus is advancing water stewardship. It recognizes that environmentally sustainable water use prevents damage to biodiversity, and socially beneficial water use secures long-term benefits for individuals and society. It aims to “establish a global water stewardship program that will recognize and reward responsible water managers and users by creating opportunities for enhanced community standing and competitive advantage.”

Types of activities

The AWS is building an organization featuring a global water stewardship system. Once this has been established, it will be implemented regionally and will serve to define water stewardship standards and recognize those who meet the standards through certification. The AWS will work with stakeholders including environmentalists, companies, water authorities and community members to come up with a voluntary water certification program. This will provide standards, verification, branding, and training and education.

Current examples

The AWS has developed a multiyear Water Roundtable that was launched in Brussels in June 2010. This is meant to be a global, inclusive, open platform. The AWS recently held its first stakeholder event in China in April 2011. Its purpose was to engage stakeholders in China on the AWS.

Relationships

Partners include the Nature Conservancy, the Water Stewardship Initiative, Pacific Institute, WWF, Water Witness, the International Water Management Institute, the CEO Water Mandate, the Carbon Disclosure Project and the European Water Partnership.

3. American National Standards Institute (ANSI)

(<http://www.ansi.org>)

What it is

ANSI's mission is "to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity."

It oversees the creation and use of norms and standards that impact businesses. It is also involved in accreditation processes that assess conformity to standards. ANSI upholds the principles of consensus, due process and openness.

Types of activities

ANSI is involved in national and international standards. It does not itself develop American National Standards but provides a platform for parties to come together on neutral ground to work toward common agreements. It also accredits qualified organizations to develop American National Standards, if their standard development process meets ANSI requirements. ANSI ensures that access to the standards process is made available to anyone who is potentially affected by a standard that is under development. This includes having in place an appeals mechanism.

ANSI also promotes the use of American standards internationally. ANSI is a proponent of the United States Standards Strategy (USS). ANSI works as an information provider between members and policymakers. Its website provides news and information to readers and includes a library of speeches, presentations and public documents.

Current examples

ANSI has recently partnered with the International Organic Accreditation Service (IOAS) to help strengthen the organic and sustainable food supply chain. ANSI will engage IOAS as an independent contractor to provide assessments and service for ANSI's food safety accreditation program. ANSI recently organized a conference entitled Standards Wars: Myth or Reality? It also is publishing a series of snapshots on standards initiatives, in order to communicate how much standards play a role in everyday life.

ANSI is working with the Leonardo Academy to develop an agriculture standard. The objective of the sustainable agriculture standard-setting initiative is to establish a comprehensive, continuous improvement framework and common set of economic, environmental and social metrics by which to determine whether an agricultural crop has been produced and handled in a sustainable manner.

Relationships

ANSI is made up of government agencies, organizations, companies, academic and international bodies, and individuals. ANSI is the American representative to the ISO and is a member of the International Accreditation Forum (IAF).

4. American Society of Agricultural and Biological Engineers (ASABE)

(<http://www.asabe.org/>)

What it is

ASABE is an organization dedicated to advancing engineering that applies to agriculture, food and biological systems. As part of ASABE, engineers develop environmentally friendly production methods for food, fiber, timber and renewable energy.

Types of activities

ASABE has published more than 200 standards, engineering practices and data documents. Its standardization process is open, voluntary and accredited by ANSI. ASABE's specialties include soil and water, food and process engineering, and structures and environment. It develops standards and engineering processes, and puts forth data. This work is meant to provide a foundation for international standardization, and to allow for interchangeability among products produced by different manufacturers. It aims to increase efficiency of engineering effort in design and production.

Current examples

ASABE's website provides information on standards and engineering practices, as well as fact sheets and position statements.

Relationships

ASABE membership is open to anyone interested in the knowledge and application of engineering in agricultural, food and biological systems. Several ASABE committees serve as U.S. voting bodies for the International Organization for Standardization (ISO).

5. Carbon Disclosure Project (CDP)

(www.cdproject.net)

The Carbon Disclosure Project (CDP) is an independent non-for-profit organization created to accelerate solutions to climate change and water management by putting relevant information in the hands of business, policy and investment decision-makers. It requests information from companies about their greenhouse gas (GHG) emissions, and most recently water, which feed into its (the world's largest) database of primary corporate climate change information.

CDP requests information about GHG emissions, along with strategies and plans to reduce emissions. This is done on behalf of 551 institutional investors, holding \$71 trillion (June 2011) in assets under management and 60 purchasing organizations like Cadbury, Pepsi-Co and Walmart. More than 3,000 organizations in 60 countries around the world now measure and disclose their greenhouse gas emissions and climate change strategies through CDP.

Types of activities

CDP request the greenhouse gas emissions and water from organizations through various programs:

1. **Investor CDP:** Requesting climate change data on behalf of 551 institutional investors to be used by financial decision-makers in their investment, lending and insurance analysis.
2. **CDP Public Procurement:** Designed to enable national and local governments to ascertain the impact of climate change in their supply chains.
3. **CDP Water Disclosure:** Providing water-related data from a subset of the world's largest water-intensive corporations to inform the global marketplace on investment risk and commercial opportunity.
4. **CDP Supply Chain:** Working with global corporations to understand the impacts of climate change across the supply chain; harnessing their collective purchasing power to encourage suppliers to measure and disclose climate change information.
5. **CDP Cities:** Providing standardized reporting of emissions data, analysis of climate risks and opportunities, and adaptation plans for cities around the world.

Current examples

One CDP program focuses on supply chain management. It works with members, including senior management, in more than 40 of the largest organizations worldwide, such as Walmart, PepsiCo and IBM, to collect information from these members' suppliers to gain a better understanding of how suppliers are addressing climate change and working to reduce their greenhouse gas emissions. This helps member companies to extend carbon disclosure into their supply chain (reported under Scope 3 of the Greenhouse Gas Protocol).¹ As part of this supply chain program, the CDP is extending into agriculture and piloting a first questionnaire for potato and tomato growers, in which producers are asked about measurement of GHG emissions and their plans and practices regarding nutrient, soil and pesticide management. CDP has indicated it will start looking into a questionnaire for dairy in 2012. Several U.S. dairy companies respond to the CDP GHG survey.

Relationships

CDP works with a broad range of partners, companies and investors to process and manage data, as well as partnerships with various organizations to request information.

6. Carbon Trust

(www.carbontrust.co.uk)

What it is

A not-for-profit organization set up by the UK government to accelerate the move to a low-carbon economy.

Types of activities

The Carbon Trust provides business and public sector support to help organizations cut emissions, save energy and commercialize low-carbon solutions. Its work focuses on cutting emissions both now and in the future. It has contributed to saving customers around 29.5 million metric tons of CO₂ and £2.6 billion in energy costs, and the Carbon Trust anticipates that their future endeavors in low-carbon technology will save customers a further 20 million tons of CO₂ a year by 2050.

Current examples

Cutting emissions now: work focuses on setting standards for carbon reduction (e.g., through Carbon Trust Footprinting Company and the Carbon Trust Standard) as well as providing specialist advice and financing (according to business size and type) to organizations. Cutting future emissions: work focuses on opening markets for low-carbon technologies, leading industry collaborations for commercializing technologies, and investing in primary stages of low-carbon companies. Carbon Trust has worked with Tesco on GHG assessments as well as with DairyCo UK.

Relationships

The Carbon Trust works with 75 percent of FTSE 100 companies, tens of thousands of small and medium enterprises, and more than 2,500 public sector bodies. Some customers include: AB Agri, ASDA, Cadbury, Coca-Cola, Marks & Spencer, Morrisons, Tate & Lyle and Tesco.

7. Centre on Sustainable Consumption and Production (CSCP)

(www.scp-centre.org)

What it is

CSCP is an organization that partners with UNEP and the University of Wuppertal, and that provides scientific support to activities undertaken by organizations involved in sustainable production and consumption.

Types of activities

CSCP is involved in the development, implementation, testing and monitoring of projects, as well as organizing conferences. The overarching aim is to enable developing countries to “leapfrog” to sustainable consumption and production patterns. Objectives are to monitor and report on global and regional trends in sustainable consumption and production; contribute to policies that promote SCP patterns both globally and regionally; raise awareness of SCP patterns within the private sector; raise consumer group awareness of sustainable consumption and production patterns; and reach effective cooperation and leverage with partners.

Current examples

Several examples of projects: the SPREAD Sustainable Lifestyles 2050 project aims to develop a vision for future sustainable lifestyle models. It focuses on sustainable living, consuming, health, welfare, equity and aging. CSCP also is running a project encouraging sustainable consumption patterns. Recent publications include 2011's *Sustainable Consumption and Production Policies*, a policy “toolbox” for practical use.

Relationships

The CSCP partners with UNEP and with the Wuppertal Institute for Climate, Environment and Energy. It is supported by various departments including the German Federal Ministry for Economic Cooperation and Development. It is a member of the family of UNEP collaborating centers, which includes the UNEP Collaborating Centre on Energy and Environment (UCCEE) and the Global Reporting Initiative (GRI).

8. CIAA-SCP Roundtable

What it is

The EU “Sustainable Consumption and Production Action Plan” provides the framework for the SCP Roundtable which aims to:

- Establish scientifically reliable and standardized environmental assessment methodologies for food and drink products;
- Identify means of voluntary communication along product supply chain and to consumers; and
- Enable them to make informed choices.

The Roundtable has the goal of establishing a framework assessment methodology by 2011. It was founded by the brand manufacturers (the CIAA members) with the aim of bringing together key food chain players (i.e., policymakers, NGOs, scientists, civil society organizations), and to embed the food chain as a major contributor to sustainable consumption and production in Europe.

Types of activities

Establishment of working groups and principles, development of assessment methodologies.

Current examples

Development of principles for voluntary environmental assessment of food and drink products, as well as for communication of environmental information.

Relationships

Founding members include, among others, CIAA and COPA-COGECA. Also links with The Retail Forum and DG Environment.

9. Coalition on Agricultural Greenhouse Gases (C-AGG)

(<http://www.c-agg.org/>)

What it is

The Coalition on Agricultural Greenhouse Gases is a group that aims to encourage fact-based discourse. It focuses on the development and adoption of methodologies and protocols for GHG emission reductions and carbon sequestration related to agriculture. It is made up of agricultural producers, scientists, methodology experts, carbon investors and project proponents.

Types of activities

The C-AGG aims to be a discussion forum for: identifying research or modeling that needs to be considered to develop protocols; prioritizing potential GHG protocols; creating a series of methodologies for agricultural GHG projects and encouraging their adoption.

Current examples

The C-AGG has proposed guiding principles for policy design, to enable the agriculture sector to participate in climate change mitigation. These include “science-based,” “innovation,” “additionality” and “permanence.” In April 2010, C-AGG produced a report titled “Carbon and Agriculture: Getting measurable results.” The coalition will be holding a meeting in July to discuss, among other things, sustainable supply chain initiatives and a recent USDA update on GHG guidelines development.

Relationships

Related initiatives include the Technical Working Group on Agricultural Greenhouse Gases (T-AGG) and Market Mechanisms for Agricultural Greenhouse Gases (M-AGG).

C-AGG is a member of the Innovation Center’s Sustainability Council and is an active participant in drafting the Guiding Principles for inclusion in the Sustainability Measurement and Reporting Framework.

C-AGG is a Meridian Institute initiative (www.merid.org). The Meridian Institute is a nonprofit organization whose mission is to encourage problem-solving and informed decision-making, and find solutions to complex societal problems.

10. The Commission on Sustainable Agriculture and Climate Change

(<http://www.ccafs.cgiar.org/commission/>)

What it is

The Commission on Sustainable Agriculture and Climate Change has been developed by the CGIAR Research Program on Climate Change, Agriculture and Food Security program (CCAFS), with support from the Global Donor Platform for Rural Development. The Commission has the objective to identify which policy changes and actions are needed to help the world achieve sustainable agriculture. Specifically, the Commission will focus on bringing together existing evidence on sustainable agriculture that contributes to food security and poverty reduction, and helps respond to climate change adaptation and mitigation goals. The Commission commences its work in mid-February 2011 and will deliver its findings for use by decision-makers on climate change and agriculture policies by December 2011.

Types of activities

The C-AGG aims to be a discussion forum for: identifying research or modeling that needs to be considered to develop protocols; prioritizing potential GHG protocols; and creating a series of methodologies for agricultural GHG projects and encouraging their adoption.

11. The Consumer Goods Forum

(<http://www.theconsumergoodsforum.com>)

What it is

The Consumer Goods Forum is an independent global network of consumer goods retailers, manufacturers, service providers and other stakeholders. Created in 2009, it provides a platform for knowledge-sharing, networking and thought leadership among members. The Forum was created in June 2009 by the merger of CIES — The Food Business Forum, the Global Commerce Initiative (GCI) and the Global CEO Forum.

Types of activities

It develops common positions on issues that affect the consumer goods business. It works across five key strategic priorities: Emerging Trends, Sustainability, Safety & Health, Operational Excellence and Knowledge Sharing & People Development. Its vision is: “Better lives through better business.” The Forum produces reports and publications, and holds conferences. It is not a lobbying organization.

Current examples

The Forum has various programs, initiatives and work groups, including the Global Food Safety Initiative (GFSI), the Global Social Compliance Forum (GSCF), the “project on the role of the consumer in tackling climate change”, and the Global Score Card Initiative. It will be holding a Global Food Safety conference entitled “Advancing food safety through collaboration” in Orlando, USA, in 2012.

In December 2011, the CGF formally endorsed The Sustainability Consortium as the leading organization to develop a sustainability measurement and reporting systems for consumer goods.

Relationships

Roughly 650 members from retailers, manufacturers, service providers and other stakeholders participate in the Consumer Goods Forum.

12. COPA-COGECA

“The united voice of farmers and their cooperatives in the European Union”
(www.copa-cogeca.be)

What it is

COPA is the Committee of Professional Agricultural Organisations. It is made up of 60 organizations from the countries of the European Union and 36 partner organizations from other European countries. COPA represents broad and specific interests of farmers in the EU. COGECA is the General Confederation of Agricultural Cooperatives. It is a European umbrella organization for agricultural cooperatives. COGECA is recognized as a “spokesperson” for the entire agriculture sector, including fisheries cooperatives. It has 35 full members and four affiliate members in the EU, as well as 36 partner members. It represents the interests of some 400,000 farmers’ cooperatives employing some 660,000 people.

Types of activities

COPA’s main objectives are to examine matters related to the development of the Common Agricultural Policy, to represent the interests of the agriculture sector, to come to solutions that respect the common interest, and to maintain and build relationships with Community authority and other European level organizations or partners.

COGECA’s main objectives are to represent the interests of European agricultural, forestry, fisheries and agri-food cooperatives and contribute to cooperatives’ development; influence decisions that affect cooperatives’ activities by lobbying at EU and international levels; promote the role of cooperatives; provide a platform for discussions and exchanging views on policy issues; seek solutions on issues of common interest; provide networking opportunities for members; promote discussions with COPA; undertake legal, economic, financial, social or other studies of interest to cooperatives; shape and develop relevant policies.

Current examples

Current activities include publication of a position paper on the future of EU medicated feed legislation, and meeting with the Hungarian presidency to outline the importance of improving the viability of the EU pig meat sector.

Relationships

European Commission; European civil society who are directly or indirectly related to the agriculture sector. Other international actors such as U.S. equivalents.

13. EDF (Environmental Defense Fund)

(<http://www.edf.org/home.cfm>)

What it is

The EDF is a charity that takes on the world's environmental problems. It is dedicated to environmental rights for all. This includes access to clean water, sufficient nourishing food and healthy ecosystems.

Types of activities

EDF uses science, economic incentives, corporate alliances and law to address environmental issues. It aims to analyze environmental problems and find ways to address them. Science is used to identify policy goals. Market incentives for good environmental behavior are used to establish the business case for environmental improvement. EDF works with the corporate community to harness the power of business for good, and also seeks to safeguard the environment through legislation.

Current examples

EDF is currently focusing on priority areas of global warming; land, water and wildlife; oceans; and health. Current activities include working with farmers, ranchers and forest landowners to find a balance between agriculture and the environment; working to renew fisheries; finding ways to mitigate negative health effects of climate change. The EDF has conducted several years of work on dairy farming and impacts on the Chesapeake Bay.

Relationships

EDF partners with governments and community actors to tackle environmental problems. It has many partnerships with the corporate community, from farmers to Fortune 500 companies.

The EDF is a member of the Innovation Center's Sustainability Council and is an active participant on the Sustainability Framework Task Force and Environmental Development Team.

14. Ethical Sourcing Code of the SQF Institute

What it is

The Safe Quality Food (SQF) Institute delivers food safety certification programs. This voluntary standard provides a core set of requirements that guide a supplier to document the management systems and procedures it applies in order to demonstrate that it has implemented ethical sourcing practices in its operations — in particular, acceptable conditions of employment and tenure for employees and management of the environment.

Types of activities

With this standard, an SQF Certified Supplier can develop, implement and maintain policies and procedures applicable to ethical sourcing issues it can control or influence and demonstrate to interested parties that it has implemented policies, procedures and practices that conform to the requirements of this standard. Requirements include a policy manual, appropriate training, responsible selection of suppliers and subcontractors, equal opportunities, regular monitoring and effective social/environmental management programs.

Current Examples

The SQF Institute released a 37-page document in March 2010 on how to implement and audit the ethical sourcing requirements. Several of the U.S. dairy businesses receive this document from their buyers and respond to it.

Relationships

The SQF Institute is administered by the Food Marketing Institute. This Ethical Sourcing Code has taken references from the SQF Responsible Social Practices, the Responsible Environmental Practices, standards from the Global Social Compliance Program and retailers who have developed similar standards.

15. European Platform on Life Cycle Assessment (LCA)

(<http://lct.jrc.ec.europa.eu/assessment/assessment/projects#c>)

What it is

The European Platform on Life Cycle Assessment (LCA) provides tools and recommended methodologies for life cycle assessment studies. It has been set up by the European Commission's Joint Research Centre.

Types of activities

The Platform provides business and public support for implementing Sustainable Consumption and Production. It promotes Life Cycle Thinking, which aims to "identify possible improvements to goods and services in the form of lower environmental impacts and reduced use of resources across all life cycle stages." The Platform offers guidance on data, and methodology for conducting assessments. The ultimate goal is to further the credibility of life cycle assessments.

Relationships

The Platform operates in collaboration with DG Environment, and the Directorate for Sustainable Development and Integration. The Platform also has various business, advisory and developer partners including UNEP, the World Business Council for Sustainable Development and the ecoinvent center.

16. Field to Market: the Keystone Alliance for Sustainable Agriculture

What it is

The Keystone Center is a U.S.-based nonprofit organization that seeks to solve "society's most challenging environmental, energy and public health problems." It brings together public, private and civil society leaders to address these issues.

Field to Market: The Keystone Alliance for Sustainable Agriculture was formed to ensure a sustainable future in agriculture to meet the needs of 9 billion people by 2050. It aims to reduce negative impacts on the environment, increase resource efficiency and enhance natural resource quality. This will be done through communication and collaboration between members.

Types of activities

Development of online self assessment tool.

Collaborative working for measuring sustainability.

Development of indicators to estimate the environmental, economic, social and health outcomes of agriculture in the United States.

Current examples

The Fieldprint Calculator is a free, confidential online tool developed with input from a diverse group of grower organizations, agribusinesses, food companies, economists and conservation groups. It helps farmers evaluate natural resource use on their operation compared with industry averages. These measures could help improve production efficiencies and profit potential.

In 2009, the Keystone Center also launched the Green Products Roundtable (GPR), and facilitates this voluntary group of stakeholders from the private, nonprofit and government sectors. The roundtable aims to minimize misunderstandings about the “green” marketplace, and improve manufacturer, consumer, and producer production and purchase decisions. It is currently made up of 35 representatives from green products manufacturing, research, certification, distribution and consumer education.

Field to Market: The Keystone Alliance for Sustainable Agriculture also has partnered with the Van Buren Conservation District, The Coca Cola Company, World Wildlife Fund and The Nature Conservancy to promote best farming management practices in the Paw Paw Watershed area in Michigan, USA.

Relationships

Various corporations, trade associations, organizations and research institutes including General Mills, Natural Corn Growers Association, Monsanto, John Deere, American Soybean Association and the Innovation Center for U.S. Dairy.

17. Food and Agriculture Organization of the United Nations (FAO)

(<http://www.fao.org>)

What it is

The FAO leads international efforts to eliminate hunger. It is a neutral forum where all countries can meet on equal footing to discuss agreements and policy. The FAO acts as a source of knowledge and information. It serves developed and developing nations, helping developing countries take steps toward modernization and improving their agriculture, forestry and fisheries practices while ensuring proper nutrition. Since its inception in 1945, the FAO has had a special focus on rural development.

Types of activities

FAO's mission is to achieve food security for all: “to make sure people have regular access to enough high-quality food to lead active, healthy lives.” It works to improve the lives of those in rural communities, boost agricultural productivity, increase nutritional levels and contribute to the growth of the world economy. It provides tools, training and techniques to help people and nations help themselves.

Its activities are spread across its eight departments: Agriculture and Consumer Protection; Economic and Social Development; Fisheries and Aquaculture; Forestry; Corporate Services, Human Resources and Finance; Natural Resources Management and Environment; and Technical Cooperation.

Current examples

Recent documents include publications on *The State of Food and Agriculture 2010-2011* and *The State of the World's Forests 2011*. The FAO is currently working with the World Bank on the new Global Agriculture and Food Security Program (GAFSP) initiative. FAO has recently called for an international effort to prevent a deadly pig disease from spreading across the Northern Hemisphere. The Agriculture and Consumer Protection Department of FAO recently co-organized an international conference in Düsseldorf with Interpack 2011. This conference, called Save Food, aimed to raise awareness of the extent and causes of global food losses.

The FAO has conducted an LCA for livestock and dairy worldwide.

Relationships

FAO has 191 member nations, one associate member and one member organization, the European Union. FAO partners with a variety of institutions, including nongovernmental organizations, foundations, companies, other UN bodies, national governments and professional associations. Among these are the International Food First Information and Action Network (FIAN), Carrefour, the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD).

18. Global Good Agricultural Practice (GLOBALG.A.P.)

(www.globalgap.org)

What it is

GLOBALG.A.P. is a private sector body set up by retailers in northern Europe. It establishes voluntary standards for the certification of agricultural production processes around the world, and its goal is to establish a single standard for Good Agricultural Practice (G.A.P.). It aims to reassure consumers about farm food production by: minimizing harmful environmental impacts of farming operations; reducing chemical input use; and ensuring a responsible approach to worker health and safety, and animal welfare.

It is a pre-farm gate standard (covers processes until product leaves farm). Certification is carried out by over 100 independent and accredited certification parties.

Types of activities

It sets voluntary standards, provides guidance for continual improvement, communicates and consults with consumers and key partners, and serves as a knowledge base.

Current examples

GLOBALG.A.P. holds conferences, is hosting upcoming workshops in Belgium and London, and produces newsletters. It has developed the GRASP Module, which is a tool to support farmers to demonstrate their compliance with international as well as national labor legislation. The GRASP Assessments are not complete social audits with in-depth investigations; rather, they focus on the review of an implemented social management system.

Relationships

Partial benchmarking to the Global Food Safety Initiative.

Retail and food service members (Aldi, Asda, Tesco, Walmart), producers/supplier members (Del Monte, Hill Fresh), and associate members from input and service side of agriculture (BASF, ConAgra Foods).

19. Global Reporting Initiative (GRI)

What it is

GRI is an organization that aims to streamline and ultimately improve sustainability reporting for companies. Its goal is to encourage sustainability reporting to be as mainstream, essential and comparable as financial reporting. Its framework has been developed through consultation with a variety of diverse stakeholders, including representatives from business, civil society and professional institutions. This network is open to those who wish to use the Reporting Framework, access information in GRI-based reports or contribute to the GRI mission in other ways, both formal and informal.

The GRI framework is the most widely used sustainability reporting framework in the world. Sustainability reports that are written based on the GRI framework can be benchmarked and compared over time. The idea is that organizations using the GRI method are demonstrating their commitment to transparency and sustainability issues.

Types of activities

The GRI establishes conditions for reliable and comparable sustainability reporting. It also organizes conferences and other events, produces a newsletter and develops various plans to allow companies to showcase their sustainability reports.

GRI sector supplements capture the unique set of sustainability issues faced by different sectors such as mining, automotive, banking, public agencies and the telecommunications industry.

Sector-specific reporting indicators are especially useful for those sectors that can benefit from tailored guidance. These indicators are designed by a multistakeholder working group of 18 to 20 individuals over a two-year process. The development process is initiated when a need is expressed by several organizations from various regions within a single sector. Half of the working group is made up of sector stakeholders, and the other half is nonsector representatives (from areas such as social, environmental, health, labor and fair trade organizations). This diverse representation means that different points of view, areas of expertise and global perspectives are brought into the discussion. Before the sector-specific guidance is finalized, the public has two opportunities to give feedback on draft versions. Sector-specific reporting indicators are available for Airports, Apparel and Footwear, Automotive, Construction & Real Estate, Electric Utilities, Events, Financial Services, Food Processing, Logistics & Transportation, Media, Mining & Metals, NGOs, Oil & Gas, Public Agency and Telecommunications.

The Food Processing sector supplement has recently been developed. This sector specification is justified by the fact that with new demands for information, and new sustainability requirements, food companies are new reporting challenges. The guidelines have been developed with the aim to assist food processing companies in their reporting of environmental, social and economic aspects of business performance. They cover: sourcing, labor/management relations, healthy and affordable food, public policy, customer health and safety, product and service labelling, marketing communications, breeding and genetics, animal husbandry, and transportation, handling and slaughter.

Current examples

Refining of reporting framework. G4 guidelines to be published in 2013.

Working to develop transparency in supply chains.

“Report or Explain Campaign” to encourage organizational transparency worldwide.

Relationships

As an international network-based organization, the GRI has thousands of members around the world including auditors and assurers, companies, academics, civil society organizations, investors and trainers.

20. Global Research Alliance on Agricultural Greenhouse Gases

(<http://www.globalresearchalliance.org/>)

What it is

This is an outcomes-based, voluntary Alliance that was launched at the Copenhagen climate conference in December 2009. The Alliance brings countries together to find ways to increase food production without increasing GHG emissions. It issued a joint ministerial statement in April 2011, setting out the reasons behind the Alliance and what it intends to achieve.

Types of activities

This research alliance aims to better understand and prevent greenhouse gas emissions from farms. It provides a framework for voluntary action, and it aims to strengthen national collaboration on climate change mitigation in agriculture. Alliance members aim specifically to further existing research efforts across subsectors of paddy rice, cropping and livestock.

Current examples

The Alliance is made up of three research groups. These are: livestock (led by New Zealand and the Netherlands); croplands (led by the USA); and paddy rice (led by Japan and Uruguay). Member states can join those research groups that are most relevant to their needs.

Relationships

The Alliance currently has 33 member countries, including the USA, Canada, the UK, Ghana, Russia and India, among others. Alliance members work with farmers and farmer organizations, the private sector, international and regional research institutions, foundations and nongovernmental organizations to improve knowledge sharing and put ideas into practice. Any interested government can become an Alliance member.

21. GS1

(<http://www.gs1.org>)

What it is

GS1 is a neutral, nonprofit, member-based organization that aims to spur innovation in the supply chain. It designs and implements global standards for use in the supply chain. It ensures that products, services and information can be exchanged between companies. Its mission is to “make it faster, cheaper and safer for members to serve their customers. This is achieved by the industrywide adoption of global GS1 standards and locally delivered services.” GS1 is the most popular supply chain standards system globally. It has offices in 108 countries, has 2000 contributors and is funded by members.

Types of activities

GS1 provides products, services and solutions to its members, to “improve efficiency and visibility of supply and demand chains.” It operates across various sectors and industries. One of its important features is a global IT reference system. Narrower goals include ensuring food safety, fighting against counterfeit products and assisting with global communication strategies. Member organizations initiate a lot of GS1’s development. Their responsibilities include allocating unique numbers to products, which is the basis for standards; providing training and support for numbering and bar coding, and data synchronization; and supplying information on standards.

Current examples

Continued implementation of bar codes; recent publication *GS1 System of Standards*.

The Global Product Classification (GPC) system is one thread of GS1 that provides a common language for groups of similar products. This is especially useful for classifying products into different sectors. The GPC system classifies products according to a hierarchical structure, with the foundation called a “brick.” A Global Trade Item Number (GTIN) can be assigned to a single brick (one example of a brick is “milk and milk substitutes (perishable)”). GS1 Traceability offers traceability standards and supports their implementation, allowing food to be traced through the supply chain. This allows for product tracing and recall, contributing to food safety.

Relationships

GS1 works closely with many international organizations, such as ISO and the World Health Organization (WHO). It works with several sector-based governmental and nongovernmental organizations and associations, and trade associations including the Consumer Goods Forum, Food Marketing Institute and the Grocery Manufacturers Association (GMA).

22. Intergovernmental Panel on Climate Change (IPCC)

(<http://www.ipcc.ch/>)

What it is

The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO). It is an intergovernmental scientific body that leads climate change assessment and that aims to provide an unbiased, scientific perspective on climate change and its potential consequences, both environmental and socioeconomic. The IPCC is open to all member countries of the United Nations and the World Meteorological Organization; at the moment, this includes 194 countries. The IPCC is made up of a Plenary, a Bureau, three working groups (The Physical Science Basis; Climate Change Impacts, Adaptation and Vulnerability; Mitigation of Climate Change) as well as a Task Force on National GHG Inventories, and numerous authors, reviewers and contributors.

Types of activities

The IPCC aims to provide scientific, policy-relevant yet policy-neutral information to the world. The Panel does not conduct its own research or monitor climate-related data; rather, it assesses worldwide scientific, technical and socioeconomic information that contributes to advancing knowledge and understanding of climate change. Thousands of scientific experts contribute voluntarily to the IPCC. Review is very important to the IPCC process, to ensure that information is understood and passed on in an objective manner. National governments are able to participate in the IPCC review process and plenary sessions where decisions are taken and reports assessed.

Current examples

Information is transmitted to the public mainly in the form of reports (the 5th Assessment Report is forthcoming in 2013/2014); special reports; methodology reports (the last of these was the 2006 IPCC Guidelines for National Greenhouse Gas Inventories); development of new scenarios, and information and outreach activities (disseminating findings from the 4th Assessment Report).

Relationships

UNEP, WMO, participating countries and participating members.

23. International Dairy Federation (IDF)

What it is

The International Dairy Federation (IDF) is a science-based organization, which represents the dairy sector worldwide by providing scientific expertise and knowledge in support of the development and promotion of quality milk and dairy products to deliver nutrition, health and well-being to consumers. It aims to identify and disseminate best practice at the international level, in order to guide and harmonize members' work on issues including climate change, nutrition and food hygiene at a national level.

IDF is a nonprofit private sector organization representing the interests of various stakeholders in dairying at the international level. IDF members are organized in National Committees, which are national associations composed of representatives of all dairy-related national interest groups including dairy farmers, dairy processing industry, dairy suppliers, academics and governments/food control authorities.

Types of activities

National committees make up IDF. The federation also works heavily with working groups and provides information in the form of newsletters, review papers, best practices, statistical digests and more.

IDF hands out multiple awards including the IDF Award (which recognizes remarkable contributions to progress in dairying worldwide), the IDF Marketing Awards (which provide dairy companies with an opportunity to showcase their range of marketing activities in the key areas of innovation, nutri-marketing, and marketing communication), the IDF Elie Metchnikoff Prize (which recognizes outstanding discoveries in the fields of microbiology, biotechnology, nutrition and health with regard to fermented milks) and the IDF Dairy Innovation Awards (celebrating new and creative initiatives in the dairy sector).

Current examples

In 2012, IDF will host the Regional Conference on Domestic Milk Supply and Demand Systems, providing the opportunity to share the experiences of the leading dairy countries that have worked through numerous challenges to develop successful milk supply and demand systems and marketing strategies. The IDF Cheese Ripening and Technology Symposium (where top international cheese scientists and technologists from academia and industry will gather for presentation and active exchange of the latest scientific findings and knowledge on innovative technological applications in the field of cheese ripening and technology) also will happen in 2012 as well as IDF/ISO Analytical Week, IDF/INRA International Symposium on Spray Dried Dairy Products, and the IDF World Dairy Summit.

Relationships

IDF has always been a key partner of many influential global organizations that have an influence and impact on the dairy sector such as:

Food and Agriculture Organization of the United Nations (FAO)

World Organization for Animal Health (OIE)

World Health Organization (WHO)

International Organization for Standardization (ISO)

Codex Alimentarius Commission and in particular the Codex Committee on Milk and Milk Products — IDF is the only private organization that is formally recognized in the Codex Procedural Manual as being responsible for providing first drafts of Codex standards for a group of food commodities.

24. International Forum on Assessing Sustainability in Agriculture (INFASA)

(<http://www.iisd.org/measure/connecting/infasa/>)

What it is

INFASA was established by the International Institute for Sustainable Development (IISD) and Swiss College of Agriculture in 2006 in order to advance sustainable agriculture through the development and effective use of indicator and assessment systems. It facilitates dialogue between different stakeholders (scientists, policymakers, producers, food industry leaders, consumers). It aims to lead to a convergence of ideas, policy positions and practices on what sustainability means in agriculture, how to measure it and how it can be promoted through the knowledge generated by this dialogue.

Types of activities

INFASA held a symposium in Switzerland that brought together various actors, including representatives from NGOs, farmers, businesses, policymakers, researchers and farmers. The symposium focused on various indicator and assessment systems.

Current examples

Future aims include establishing common ground with other major international initiatives that focus on how societies measure sustainable development progress, and disseminate information and tools to a wider stakeholder audience. Key questions for INFASA going forward include: How can we strengthen the data underpinning agricultural sustainability measurement? What measurement tools and practices are needed by the various stakeholders?

Relationships

INFASA is chaired by Fritz Haeni at Swiss College for Agriculture (SHL) and Laszlo Pinter at International Institute for Sustainable Development (IISD). INFASA project group RISE (Response-Inducing Sustainability Evaluation) has developed a model to measure farm sustainability. IISD's Measurement and Assessment Program carries out theoretical work related to sustainability metrics.

25. International Organization for Standardization (ISO)

(www.iso.org)

What it is

ISO is an organization that launches new standards according to demand from stakeholders and sectors. An ISO standard is a living agreement with criteria and technical specifications to be used consistently to ensure that things such as services, products and processes are “fit for purpose.” The general ISO process is that relevant stakeholders or sector representatives propose a new standard to an ISO member, who then passes on the proposal to the relevant technical committee that develops standards in that area. The proposal must then be supported by the majority of the technical committee. Technical committees are made up of expert representatives from the industrial, technical and business sectors that have requested the standards and

will be using them. In addition to these technical committees, ISO also has policy development committees that investigate the need for standard development in other areas: developing countries (DEVCO), consumers (COPOLCO) and conformity assessment (CASCO). To date, ISO has developed more than 18,500 International Standards on various subjects, and some 1,100 new standards are published annually.

Types of activities

Development and drafting of international standards. Other ISO deliverables include: ISO/PAS Publicly Available Specification, ISO/TS Technical Specification, ISO/TR Technical Report, IWA International Working Agreement and ISO Guide.

Current examples

Selected Environment related standards are:

- ISO 14020:2000 (Environmental labels and declarations)
- ISO 14063:2006 (Environmental communication)
- ISO 14064 and 14065: (GHG emissions accounting and verification)
- ISO 14040:2000 (Environmental management — Life cycle assessment — Principles and framework for life cycle analysis)
- ISO 14001:2004 (Environmental management systems — Requirements with guidance for use)
- ISO 14004:2004 (Environmental management systems — General guidelines on principles, systems and support techniques)
- ISO 14064/65 (a basic toolbox to develop flexible, regime-neutral tools for use in voluntary or regulatory GHG schemes, promote and harmonize best practice, support the environmental integrity of GHG assertions, assist organizations to manage GHG-related opportunities and risks, and support the development of GHG programs and markets)
- ISO/PC 242 on energy management standards
- ISO 14001:2004 (Environmental management systems — Requirements with guidance for use)
- ISO also publishes updated news on its activities and standards development; e.g., a new article on how standards work best if they are developed in partnership with consumers

Relationships

ISO's network includes many UN bodies (UNFCCC, UNEP, UNIDO, FAO, WMO, UN Global Compact), the World Energy Council, the World Business Council for Sustainable Development and the World Resources Institute. ISO is made up of 162 country members that are divided into three categories: member bodies, correspondent members and subscriber members.

26. Responsible Sourcing From AIM-PROGRESS

What it is

AIM-PROGRESS is a forum of consumer goods companies assembled to enable and promote responsible sourcing practices and sustainable production systems. Its key objectives include the provision of a forum to exchange views regarding responsible sourcing practices and supporting the effective collaboration and potential convergence with other global initiatives having similar aims or interests. It aims to develop and promote the use of common evaluation methods to determine CSR performance within the supply chain and drive efficiencies for all companies by collecting, assessing and sharing noncompetitive information on supply chain CSR performance.

Types of activities

AIM-PROGRESS has initiated two programs to leverage synergies, take costs out of the supply chain for all partners and generally promote more efficiency in responsible sourcing:

Mutual Recognition of Supplier Audits: 17 AIM-PROGRESS member companies agree to recognize supplier audits completed on behalf of another company and will review the submitted assessment report to confirm it meets internal company requirements. Suppliers are encouraged to share their assessment reports directly with these companies upon request or upload them via the SEDEX platform, which provides a secure, online data exchange between suppliers and customers. A supplier may only share assessment reports they own the rights to or which they have received prior authorization to share. The initiative is still growing to include additional AIM-PROGRESS members.

Joint supplier capability building: AIM-PROGRESS members organize joint supplier awareness and training sessions about responsible sourcing compliance. Physical workshops have been organized in Russia, China, Brazil, Turkey, India and South Africa, gathering more than 2,500 participants, representing more than 1,000 different suppliers. In addition, AIM-PROGRESS also organized a number of “webinars” to reach the North American and European supplier base, covering more than 1,200 participants.

Current Examples

AIM-PROGRESS hosted a webinar in June 2011 on Responsible Sourcing for European suppliers. A document was released shortly after with a list of frequently asked questions from the webinar. Additional webinars are scheduled for 2012. Responsible Sourcing Taskforce meetings also are held, mostly in Europe and North America.

Relationships

AIM-PROGRESS is sponsored by AIM in Europe and the GMA in North America, and several of our Sustainability Council members are involved in this effort.

27. Sedex

What it is

Sedex, the Supplier Ethical Data Exchange, is a not-for-profit membership organization dedicated to driving improvements in responsible and ethical business practices in global supply chains.

Types of activities

Sedex members have access to an online database that allows them to store, share and report on information on four key areas: labor standards, health and safety, the environment and business practices.

For buyers, Sedex offers an electronic system for collecting and analyzing information on ethical and responsible business practices. A variety of reporting tools enables buyers to keep track of their suppliers’ performance and also have access to an advanced Risk Assessment Tool. For suppliers, Sedex provides a way of sharing ethical information with multiple customers. Suppliers complete one self-assessment questionnaire and can choose to share this with multiple customers on Sedex, along with any other relevant ethical information, such as audit reports and certifications. Suppliers have complete control over who can view their data.

Sedex members have the opportunity to participate in working groups and member events.

Current examples

Sedex will hold the next Action Sustainability Annual Conference in February 2012. This year also will host multiple webinars to accompany the launch of its Human Rights Risk Atlas, which analyzes the extent of human rights abuses in 197 countries.

The organization also launched a new Self Assessment Questionnaire and Risk Assessment Tool (SAQRAT). With the SAQ, suppliers will answer questions that are more specific to their type of business. The Risk Assessment Tool allows members to run more robust risk assessments.

Relationships

Sedex is partnered with Maplecroft.

28. Stewardship Index for Specialty Crops

What it is

The Stewardship Index for Specialty Crops (SISC) project is a multistakeholder initiative to develop a system for measuring sustainable performance throughout the specialty crop supply chain, which includes fruits, vegetables, nuts and horticulture. The project will offer a suite of outcome-based metrics to enable operators at any point along the supply chain to benchmark, compare and communicate their own performance. The Stewardship Index aims to develop metrics that address a range of impacts across all specialty crops and can be used by all who wish to participate.

Types of activities

The Stewardship Index measures: human resources, community, air quality, biodiversity and ecosystems, energy use, GHG emissions, nutrients, packaging, pesticides, soils, waste, water quality, water use, green procurement and fair price/incentives. Workgroups for each metric will evaluate these issues through the Metrics Review Committee.

Current examples

Since 2011, the Stewardship Index has been conducting on-farm piloting of SISC metrics. Members were given a user guide and access to an SISC Metric Calculator (which was tested in 2011) for the pilot. Growers can use their records from the 2011 growing season to complete the pilot or review the metrics as part of planning for the 2012 growing cycle. Growers may elect to include one crop or multiple crops.

Relationships

The Stewardship Index is made possible by members of the Coordinating Council. Significant financial support has been provided by The David and Lucille Packard Foundation and the USDA-NRCS, which awarded a large grant to fund the pilot testing of the Stewardship Index metrics. The grant is administered by SureHarvest, with subcontracts to the Western Growers Association and the Natural Resources Defense Council for staff support.

29. The Sustainability Consortium

(<http://www.sustainabilityconsortium.org>)

What it is

The Sustainability Consortium is an independent global network organization. It is made up of a range of diverse members who work together to improve the sustainability of product life cycles. The Sustainability Consortium advocates for scientific processes and transparency, rather than for individuals or organizations.

Types of activities

The Sustainability Consortium works to drive the development of standards and IT tools that enhance the ability to understand and address products' environmental, social and economic impacts. Its two main focuses are business applications and informing decision-makers. Under business applications, the consortium aims to develop standards and tools to measure and report on product sustainability. It develops and maintains standards for measuring and reporting product sustainability; partners with software and data sharing companies to create measurement and reporting tools; and partners with auditing and certification firms to create assurance standards. Under informing decision-makers, it aims to enhance science to better inform decision-makers. It develops new indicators and methodologies evaluating product sustainability; it conducts best practice reviews; and explores the use of sustainability information for buyers and consumers. The Consortium has various working groups and initiatives, including Food, Beverage and Agriculture; Assurance; IT Standards and Tools; and Home and Personal Care.

Current examples

The Consortium has developed an "Open IO" (<http://www.open-io.org/>). This is a free and transparent Input/Output-based system that provides sustainability and analysis information. This project has been jointly

administered by the Sustainability Consortium and the University of Arkansas. It is a comprehensive analytical database that allows users to assess the environmental impacts arising from the production and use of goods and services in the United States. It is currently working to develop Sustainability Measurements & Reporting Standards (SMRS), using a sector approach, to aggregate environmental and social impacts into meaningful metrics. The Consortium's Food, Beverage and Agriculture Working Group is working to build a life cycle science-based approach to product level sustainability information reporting for all food, beverage and agriculture products. The Measurement Sciences Working Group has recently passed a motion to adopt the LCA accounting framework as established in the Greenhouse Gas Protocol by the World Resources Institute (WRI). This helps contribute to consistency in product measurement and furthers collaboration with the WRI.

Relationships

The Consortium is jointly administered by the University of Arkansas and Arizona State University. To further its aims, the Sustainability Consortium is seeking retail partners to work with, to help ensure that product sustainability reporting for consumer goods becomes an industry standard. Organizations can join the initiative as Founder/Tier I or Tier II members.

Current Tier I Members include Innovation Center for U.S. Dairy, Defra, Syngenta, Walmart, Stonyfield Farm, General Mills, Monsanto and MillerCoors. Tier II members include 3M, Forest Product Association of Canada, Marks & Spencer, Johnson & Johnson and Toshiba. NGOs also are able to have formal engagement with the Consortium. Current NGO members include BSR and WWF.

The Innovation Center is a founding members, active participant in the various committees of the TSC, and a Innovation Center staff member is co-chair of the Food, Beverage and Agriculture Working Group.

30. Sustainable Agriculture Initiative Platform (SAI)

What it is

SAI Platform is an organization based in Europe but with global membership as well as an Australian chapter. It has been created by brand manufacturers to facilitate worldwide communication and involve stakeholders in developing sustainable agriculture. SAI Platform supports agricultural practices and production systems that preserve the future availability of current resources and enhances their efficiency. It aims to implement the three pillars of sustainability into agriculture (environmental, economic, social). SAI Platform currently has 25 members with estimated sales of \$300 billion. These members hold the idea of sustainable agriculture as a "productive, competitive and efficient way to produce agricultural products, while at the same time protecting and improving the natural environment and social/economic conditions of local communities."

Types of activities

SAI Platform's ultimate aim is "to support the development of sustainable agriculture worldwide."

To further this goal, SAI Platform's activities operate on two main axes:

- Building capacity on sustainable agriculture
- Communication about sustainable agriculture

Current examples

Recent activities include: publishing *Principles and Practices for the Sustainable production of Arable and vegetable Crops, Coffee, Dairy and Fruit* and *Benchmark Study of Agriculture Standards*; organizing conferences on sustainable agriculture; carrying out seminars on various relevant topics; and commissioning a study on GHG measurement in dairy production.

SAI Platform has various working groups; e.g., a working group on dairy compared 27 different methodologies for measuring GHGs at farm level.

It also organizes educational conferences and pilot projects.

Relationships

Members include Kraft Foods, Danone, Nestlé, Kraft, General Mills and Unilever.

Affiliate members are CIAA, EISA, Global Dairy Platform and the Innovation Center for U.S. Dairy.

31. Sustainable Commodity Initiative (SCI)

(<http://sustainablecommodities.org/>)

What it is

The Sustainable Commodity Initiative is a multistakeholder alliance managed by the International Institute for Sustainable Development (IISD) and the United Nations Conference on Trade and Development (UNCTAD). The SCI aims to find ways to ensure that sustainable practices are adopted in commodity production and trade, to enhance social, environmental and economic welfare. It has several cross-cutting initiatives that aim to enhance NGO collaboration and promote shared learning.

Types of activities

The SCI aims to achieve its goals by focusing on:

- Strengthening technical assistance for sustainable production
- Supporting access to market information on sustainable products
- Improving access to finance for sustainable production
- Strengthening the evidence base on impacts of sustainable products and supply chains
- Facilitating the development of supportive policy for sustainable products and markets

Current examples

It is currently involved in implementing a three-year road map, whose four elements are analytical research, a network of learning, outreach and policy response. Current targets throughout road map implementation phase are sustainability issues in biofuel, fiber, food and feed commodities. Initial targets are coffee, palm oil, sugar, bananas, tea, cotton and commodities used for biofuels. The State of Sustainability Initiative (SSI) is a global information-sharing platform that conducts research and produces reports on voluntary, market-based approaches to sustainable trade and production. The SSI is coordinated by the Sustainable Commodities Initiative. The SSI provides monthly online reports aimed at policymakers and the private sector. The SCI also is involved in a variety of public policy projects, such as the Sustainable Coffee Partnership (SCP) that brings together major institutions in the coffee sector to develop and implement a global strategy for sustainability within the coffee sector.

Relationships

The SCI is managed by the International Institute for Sustainable Development (IISD) and the United Nations Conference on Trade and Development (UNCTAD). It also has many partners and advisers, including AID Environment, the International Institute for Environment and Development (IIED), Cadbury, Rabobank, Technoserve and Starbucks.

32. Sustainable Food Laboratory

(www.sustainablefoodlab.org)

What it is

The Sustainable Food Laboratory is a consortium that aims to “accelerate the shift of sustainable food from niche to mainstream.”

Types of activities

The Sustainable Food Laboratory facilitates market-based solutions for sustainable food to feed the world. Areas of focus include climate, soil, water and poverty. The Sustainable Food Lab encourages learning along all

processes of the supply chain from food production to sale and distribution. Main activities include: testing and developing new ideas; measuring outcomes; sharing learning; and providing an innovation space for system leaders. It has developed the Cool Farm Tool, a greenhouse gas calculator that enables farmers and supply chain managers to work out the best way to reduce their emissions. The tool is available online for free.

Current examples

The Sustainable Food Laboratory is managing the Global Agriculture Climate Assessment, which uses the Cool Farm Tool to analyze the GHG footprint and pragmatic practice change opportunities in farming systems around the world. It also manages projects in several countries in Africa and Central America in which food companies are testing new business models for integrating small-scale farmers into their value chains. The Sustainable Food lab also incubates and manages partnership projects. They are currently focusing on the following priorities: agriculture and development; climate change and sustainability metrics; and regional, local and sustainable food.

Relationships

It is a consortium of businesses and nonprofit and public organizations. Members include Unilever, General Mills, Pulse Canada, Sodexo, the Innovation Center for U.S. Dairy, The Nature Conservancy and the International Institute for Environment and Development (IIED).

33. United Nations Environment Programme (UNEP)

(<http://www.unep.org>)

What it is

UNEP's mission is "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations."

Types of activities

UNEP works to establish panels and declarations that help further the goal of protecting the environment. It has put forward, for example, the Montreal Protocol on Substances that Deplete the Ozone Layer, and founded the IPCC. It runs various campaigns, initiatives and councils. It is a source of information for governments, journalists, civil society, children, business and scientists. UNEP's six areas of focus for the 21st century are climate change, environmental governance, disasters and conflict, harmful substances, resource efficiency and ecosystem management.

UNEP has a program called SETAC, a life cycle initiative that enables users around the world to put life cycle thinking into effective practice. It contributes to the 10-Year Framework of Programmes to promote sustainable consumption and production patterns. The initiative allows users to network with its more than 2,000 members and gather examples of best practices.

Current examples

UNEP has been "climate neutral" since January 1, 2008, and has made a commitment to reduce its emissions as far as possible and to offset any remaining emissions. It is leading efforts toward "greening the UN." Recent publications include *Towards a Green Economy. Pathways to sustainable and poverty eradication (a synthesis for policy makers)* and *Decoupling: natural resource use and environmental impacts from economic growth*. UNEP's Climate Neutral Network is an initiative that aims to catalyze the response to climate change.

Relationships

UNEP partners with, among others, Global International Waters Assessment (GIWA), Commission on Sustainable Development and Google Inc. Advisory partners are the Ecosystem Conservation Group (ECG); the Intergovernmental Panel on Climate Change (IPCC); the Joint Group of Experts on the Scientific Aspects of Marine Environment Protection (GESAMP); and the Scientific and Technical Advisory Panel (STAP).

34. United Nations Framework Convention on Climate Change (UNFCCC)

(<http://www.unfccc.int>)

What it is

The UNFCCC is an international treaty, established on March 21, 1994, and joined by most countries, with the aim of determining what can be done to mitigate and adapt to climate change on a global level. The UNFCCC recognizes that effects of climate change are not restricted to the areas in which they are caused, and that climate change solutions require a global effort. It determines a framework outlining intergovernmental efforts to address climate change issues. The Convention is governed by the Conference of Parties (COP), which meets annually.

Convention text is available at: <http://unfccc.int/resource/docs/convkp/conveng.pdf>.

UNFCCC is also the name of the UN Secretariat that supports the operation of this convention, and whose offices are in Bonn, Germany.

Types of activities

Under the Convention, governments can collaborate to prepare for climate change adaptation; share information on policies, GHG emissions and best practice; and launch national strategies for GHG emissions mitigation and adaptation. The Kyoto Protocol is an international agreement linked to the UNFCCC. The Kyoto Protocol, which has 192 parties, sets binding targets for 37 industrialized nations and the European community for reducing GHG emissions. These reductions add up to an average of 5 percent emissions reduction between 2008 and 2012, compared with 1990 emissions levels. While the UNFCCC is encouraged, the Kyoto Protocol is a commitment with legally binding targets. The Protocol places more pressure on industrialized nations that have been polluting heavily for years, under the principle of “common but differentiated responsibilities.” Under the Kyoto Protocol, countries are offered three market-based mechanisms as a means to meet their targets in addition to national measures: These are emissions trading (the carbon market); the clean development mechanism (CDM); and joint implementation (JI). Country’s emissions are tracked and recorded according to registry systems, an international report log, a compliance system and an Adaptation Fund that helps fund adaptation projects.

Current examples

The UNFCCC is currently working on establishing a new framework that will have to be negotiated and ratified by the end of the first Kyoto Protocol commitment period, in 2012. It must deliver the reductions that the IPCC has deemed necessary. The UNFCCC held a UN Climate Change Conference in June 2011 in Bonn, Germany. The UNFCCC held the last Conference of Parties (COP 17) in Durban, South Africa, in 2011.

Relationships

The UNFCCC is a UN initiative, and cooperates with many governments and international bodies. More than 1,297 nongovernmental organizations and 83 intergovernmental organizations are admitted as observers to the Conference of Parties sessions. Representatives from civil society also are able to be admitted to COP sessions. The UNFCCC recognizes the IPCC as a credible source of climate change information. The IPCC reports influence and inform UNFCCC negotiations.

35. Water Footprint Network

(<http://www.waterfootprint.org>)

What it is

The Water Footprint Network aims to encourage the transition toward “sustainable, fair and efficient use of fresh water resources worldwide” by putting forward the idea of the “water footprint” as an indicator; increasing awareness of the water footprint and understanding of consumption implications on water among businesses, communities and governments; and encouraging modes of water governance that reduce the negative impacts of water footprints among businesses, countries and national governments. The water footprint is an indicator

of water use accounts for a consumer's or producer's direct and indirect water use. The water footprint of an individual, community or business is defined as "the total volume of freshwater that is used to produce the goods and services consumed by the individual or community or produced by the business."

Types of activities

Broad activities include: standard development for water footprint accounting, impact assessment and reduction; developing support tools for water footprint accounting; providing information and education on the idea of the water footprint; encouraging knowledge sharing about water footprints; supporting organizations that are trying to measure and reduce their water footprints and develop sustainable water policy; and providing advice and certification on the water footprint. The Network has two work programs. Its "Technical Work Programme" moves forward water footprint methodology, provides statistics, and develops manuals and tools. The "Policy Work Programme" focuses on the development of practical knowledge on how to incorporate footprint analysis into policies, strategies and initiatives.

Current examples

The website provides information on individual, corporate, national and global water footprints. It also lists a variety of water-related publications, training materials to educate users about water and water footprints, and an online glossary explaining terms.

Relationships

Partners include academic institutions, nongovernmental organizations, businesses, government agencies and international organizations. Some of these are the Alliance for Water Stewardship, The Nature Conservancy, UNEP and the World Business Council for Sustainable Development.

36. World Business Council for Sustainable Development (WBCSD)

(<http://www.wbcscd.org/>)

What it is

WBCSD is a global association of some 200 organizations that deals with business and sustainability. It provides participating companies with an opportunity to share knowledge and best practice, discuss issues of sustainable development, and put forward business positions. WBCSD works with governmental, nongovernmental, and intergovernmental organizations. Membership is made up of representatives from more than 30 countries and more than 20 industrial sectors. Nearly half of these companies are Fortune 500. WBCSD is part of a global network of some 60 business and regional partners. Its main objectives are: to be a leading business advocate on sustainable development; to participate in policy development; to demonstrate the business case for sustainable development; to show business's contribution to sustainable development; and to promote a sustainable future.

Types of activities

WBCSD has four areas of focus: Energy and Climate, Development, The Business Role and Ecosystems. Activities to further these goals include publications, various council and sector projects, publication of e-newsletters and events listings for business-related events.

Current examples

WBCSD is currently adapting its Global Water Tool for use in the Indian market; has recently published a Carbon Pricing brief; and has recently welcome its 100th member to its Manifesto for Energy Efficiency in Buildings.

Relationships

Regional Network partners from Africa, Asia, Europe, North America, Latin America and Oceania. Also many company members (e.g., Rio Tinto, BHP Billiton, The Coca-Cola Company, BP). WBCSD cooperates with the IUCN (The International Union for the Conservation of Nature), the World Resources Institute, the World Economic Forum and the International Institute for Sustainable Development (IISD).

37. World Resources Institute (WRI)

(www.wri.org)

What it is

The WRI is an environmental policy research and analysis think tank that aims to encourage sustainability in society, to protect the planet and to provide for current and future generations. Its four key areas of focus are: Climate Change, Governance, Markets and Enterprise, and People and Ecosystems.

Types of activities

The WRI supports activities and initiatives related to environmental stewardship and sustainability, including: conferences, training, policy initiatives and research. It is currently involved in more than 50 active projects working on global climate change, sustainable markets, environmentally responsible governance and ecosystem protection. It provides up-to-date research and analysis on climate change solutions and policies.

Current examples

Current activities include: engaging the private sector to help overcome climate and energy challenges by sharing strategies and solutions with corporate partners; co-sponsoring the sixth annual Asia Clean Energy Forum in June; and developing a Climate Analysis Indicators Tool (CAIT) that provides databases of GHG inventories, maps and analytic tools, and is available at <http://cait.wri.org/>.

Relationships

The WRI is part of a global community of nonprofit organizations, corporations and individuals. It has partnered for a decade with the World Business Council for Sustainable Development (WBCSD), working on the GHG Protocol Initiative, the most widely used GHG emissions measurement tool. The WRI is a member of The Climate Registry, which uses WRI accounting methodologies for its participants to quantify and report on emissions.

38. WWF (World Wide Fund for Nature (World Wildlife Fund in Canada and U.S.))

(<http://www.wwf.org>)

What it is

WWF is an independent conservation organization. It has a global presence and acts locally through offices around the world. Its central secretariat is in Gland, Switzerland. Its mission is to stop further degradation of the environment and to build a harmonious future for humans and nature.

Types of activities

WWF furthers its mission through various types of activities. It works to preserve biological diversity. It promotes the reduction of pollution and unsustainable consumption. It works to ensure that consumption of natural resources is sustainable.

Current examples

WWF runs roughly 1,300 different projects at any one time. Since 1985, WWF has invested more than \$1,300 million in more than 11,000 projects in more than 100 countries. WWF works on 13 global initiatives that have been identified as key priorities. These include Climate & Energy, Market Transformation and Smart Fishing. WWF works with key companies and stakeholders to identify global benchmarks and stimulate the improvement of production practices for commodities through their “roundtables” for cotton, sugar, soy and palm oil. Commodity production standards are created based on better management practices with a focus on reducing the key adverse impacts. WWF has established a strategic alliance with FISA, the World Rowing Federation (“World Rowing”), to promote clean water. WWF has recently contributed to a public consultation on an EU position for the 2012 United Nations Conference on Sustainable Development, to be held in Rio de Janeiro. It also has recently prepared a briefing on discussions around the potential increase of 2020 GHG reduction targets from 20 percent to 30 percent compared with 1990 levels.

Relationships

WWF cooperates with UN organizations, the International Union for Conservation of Nature, development agencies such as USAID and the World Bank, and businesses and industries.

The Development Teams develop overarching principles, metrics and indicators under guidance of the Framework Task Force. The environmental indicators and guiding principles will be reviewed by the Sustainability Council and Innovation Center Board in May and June 2012.

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